



2020 - 2021
CATALOG

2020-2021 Catalog

WELCOME

It is my honor to welcome you to Houston Community College. Our signature programs prepare students for careers in the emerging economy—in the workforce and academic degrees, certificates, and transfer pathways that have an impact on today’s world and the communities we engage. All of our programs and offerings aim for your success in the career path of your choice, and all of us at HCC are committed to supporting you in finding that success.

Your individual choice is part of what brought you to Houston Community College, and it will gain even more momentum as you connect with and find inspiration from other students, faculty, and staff. The programs are rigorous, and the standards are high, yet we believe you belong at HCC and that here you will grow—as a thinker and professional member of the community—through your dedication to your studies and through participation in the opportunities we offer.

Houston Community College is committed to opportunities that allow you to engage in courses that connect undergraduates with community partners and third-party accreditations and licensures that expand your expertise and foster sense of community. The answers you seek regarding your education are limitless—reach out and we will guide you. Your path awaits.

We hope you are as excited to be at Houston Community College as we are to welcome you!

Norma Perez, Ph.D.

Vice Chancellor of Instructional Services and Chief Academic Officer



SCOPE OF THIS CATALOG

This Catalog, along with the Student Handbook and Code of Conduct, is meant to give guidance and background to all students enrolled at HCC, as well as prospective students and alumni. The HCC Community, including students, is also subject to HCC's Board Policies, which can be found online at www.hccs.edu/about-hcc/policies. Policy references in this catalog are meant to be helpful background information; for the most up-to-date Board Policies, students should consult the Board Policy website.

Some students in specialized programs or courses of study may also be subject to handbooks or rules pertaining to their particular program or course of study, in addition to a particular course syllabus. That information is provided to the student by their program, course of study, or faculty member.

All students are subject to the guidelines provided in the Student Handbook and in the Student Code of Conduct.

A copy of the current Student Catalog is available online at www.hccs.edu/programs/catalog.

Archived catalogs can be found at:

www.hccs.edu/programs/catalog/catalog-archive.

The current Student Handbook is available at:

www.hccs.edu/resources-for/current-students/student-handbook.

The Student Code of Conduct is available at:

www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/.

TABLE OF CONTENTS

Welcome	i
Scope of This Catalog	ii
2020-2021 Calendar	1
About Houston Community College	2
Mission Statement	2
Vision Statement	2
Accreditation	2
Board of Trustees	2
General Information	3
Equal Educational Opportunities Statement	3
Office of Institutional Equity	3
Sexual Misconduct Information and Reporting	4
Admissions Information	5
General Admissions Criteria	5
Admissions Application	5
Admissions Application Deadline	5
New Student Checklist	5
Online College Admissions	6
Health Science Program Admissions	6
Continuing Education Programs Admissions	6
Veteran and Military-Affiliated Students Admissions	6
Registration of Sex Offenders	6
Re-admission	7
Admission For High School or Non-Credit Students	8
High School Student Admissions and Enrollment	8
Dual Credit	8
Articulated Credit	9
Early College High School Students	9
Homeschool and Private/Charter School Students	9
Admissions for Minors	10
Non-Degree Seeking	10
Special Program Admissions	11
Upward Bound	11

VAST Academy (Vocational Advancement and Skills Training)	12
Honors College	12
Residency Information	13
Establishing Residency	13
Basic Residency Requirements	13
In-District Residency	13
Out-of-District Residency	14
Out-of-State Residency	14
International Student Residency for Tuition Purposes	14
Undocumented Students	14
Change of Residency	14
Penalties	15
Additional Information for Non-U.S. Citizen Students	15
Cost of Attendance and Exemptions/ Waivers Information	16
Tuition and Fee Schedule for Academic Year 2020-2021	16
Exemptions and Waivers	19
Flexible-Entry Course Fees	19
Laboratory/Supply Fees	19
Continuing Education Unit Course Tuition and Fees	19
Adult High School Costs	20
Tuition Rebate Program	20
Tuition and Fees Payment	20
Delinquent Student Account Balances	22
Refunds and Credit Balances	22
Academic Information	25
Course and Program Definitions	26
Online Courses	26
Attendance Policy	27
Grading System	27
Incompletes	28
Repetition of Courses	28
No Late Registration	28
Academic Progress Requirements	28
Dropping Courses	30
Limitation/Costs of Course Withdrawals	30

Medical Withdrawal/Compassionate Withdrawal Application Process	31
Satisfactory Academic Progress Requirement for Veteran and Military Affiliated Students	32
Repeating Courses for Veteran and Military-Affiliated Students	32
Activated Reservists	33
Satisfactory Academic Progress Requirements for Financial Aid Students.....	33
Progress Records	33
Grade Reports	33
Graduation.....	33
Graduation Honors.....	34
Participation in the Graduation Exercises.....	34
Records and Transcripts	35
Family Educational Rights and Privacy Act (FERPA)	35
Release of Student Records/Information	35
Academic Support	37
Freshman Success Courses (FSC).....	37
Service Learning.....	37
Supplemental Instruction	37
Tutoring in our Academic Success Centers and/or Online	37
Adult Education Program.....	39
Adult Education & Literacy Programs.....	39
Workforce and Career Training Program (WCTP).....	39
Ability to Benefit Programs	40
Adult High School	40
Student Services.....	41
Student Services Contact Center	41
Student Orientation.....	41
Student Identification Card	42
Advising Services.....	42
Counseling Services	42
Ability Support Services.....	43
Testing.....	46
Child Care, Minors, and Relatives on Campus	46
Alumni Association.....	47
HCC Libraries and Learning Resources.....	48

More Than Books and Databases.....	48
Logging into Databases and Library Account.....	48
Checking Out Materials	48
Overdue Library Materials	48
Materials from Other Libraries.....	48
Bookstore	49
Veteran Services	50
Veteran & Military-Affiliated Students.....	50
Residency & Tuition / Veteran & Military-Affiliated Students	50
Applying for Education Benefits / Veteran & Military-Affiliated Students	50
Hazlewood Act Eligibility & Required Documentation / Veteran & Military-Affiliated Students	51
Required Hazlewood Documents for Veterans.....	52
Spouses and/or Children Required Hazlewood Documents.....	52
Transferability of Benefits (Legacy) Documents.....	53
Transfer / Veteran & Military-Affiliated Students	53
Priority Enrollment / Veteran & Military-Affiliated Students	53
International Services and Programs (ISP)	54
Contacting International Student Services and Programs	54
F-1 International Students.....	54
Full-Time Enrollment Requirements for International Students	54
Concurrent Enrollment for F-1 International Students.....	55
Summer International Transient Students	55
English Proficiency and Course Placement.....	55
International Transfer Students	55
Transfer Credit from Foreign Institutions.....	55
Check-in and Orientation for International Students.....	56
F-1 Student Health Insurance.....	56
Training Programs.....	56
J-1 Visa Program	56
Centers of Excellence	57
HCC Guarantee of Educational Excellence	57
Transfer Credit	57
Job Competency	58
Transfer Information and Credit.....	59

Transfer Policy.....	59
Accreditations Accepted in Transfer.....	59
Students Transferring to HCC from Other Colleges/Universities	59
Prior Learning Assessment Credit	59
Credit by Examination.....	60
Students Transferring from HCC to Other Colleges/Universities	60
Transfer Dispute Resolution.....	61
Transfer Limitation.....	61
Career and Job Placement	62
HCC CareerHub.....	62
Student Activities	63
Health and Safety Information	63
Health Services.....	63
Drug & Alcohol Abuse Prevention	63
Alcohol and Controlled Substances Policy and Procedures	63
Police Services and Campus Safety.....	66
Campus Carry	67
Weapons on Campus	67
Student Rights and Responsibilities.....	68
Freedom of Inquiry and Expression.....	68
Student Concerns.....	68
Degree and Certificate Options	70
Associate of Arts – AA Degree	70
Associate of Arts in Teaching – AAT Degree.....	70
Associate of Science – AS Degree	70
Associate of Applied Science – AAS Degree.....	70
Certificates – Level One, Level Two, and Continuing Education	70
Occupational Skills Award – OSA	70
Enhanced Skills Certificate – ESC.....	70
Advanced Technical Certificate – ATC.....	70
Institutional Certificate – IC.....	70
Degree and Certificate Requirements for Graduation	71
Core Curriculum	71
Statement of Purpose.....	71
Core Objectives	71

Foundational Component Areas	72
General Associate Degree Requirements (for AA, AAT, and AS)	73
General Associate of Applied Science Degree Requirements (AAS).....	73
AAS Requirements	73
Certificate Programs and General Requirements.....	74
Semester Credit Hour	74
Core Curriculum Electives for Academic Degree Programs	75
Core Curriculum General Education Electives for Workforce Degree Programs	80
Field of Study Curricula	84
Academic Degree Plans & Certificates	85
Anthropology (AA)	85
Business (AA)	87
Communication (AA)	88
Computer Information Systems (AA)	91
Dance (AA)	92
Drama - General (AA)	93
Drama – Performance (AA)	95
Drama – Design Technology (AA)	97
English (AA).....	99
Government (AA).....	100
History – Academic Track (AA).....	102
History – Teacher Certification Track (AA)	104
Interdisciplinary Studies (AA).....	105
Africana / African American Studies (IC).....	108
Global Studies (IC).....	109
Mexican-American/Latino Studies (IC).....	110
Women & Gender Studies (IC)	111
Multidisciplinary Studies (AA)	112
Multidisciplinary Studies - Economics Major (AA).....	113
Multidisciplinary Studies - Geography Major (AA)	115
Multidisciplinary Studies - Kinesiology & Exercise Science Major (AA).....	117
Multidisciplinary Studies - Philosophy Major (AA)	119
Multidisciplinary Studies - Sociology Major (AA).....	120
Music (AA).....	121

Studio Art (AA).....	123
Teaching (AA).....	124
World Languages (AA).....	125
Associate of Science (AS)	127
Biology - Biology Majors & Pre-medical Programs (AS).....	128
Biology - Health Sciences Professions (AS)	129
Chemistry (AS)	131
Computer Science (AS).....	132
Criminal Justice (AS)	133
Engineering Science - Chemical Engineering (AS).....	134
Engineering Science - Civil / Environmental Engineering (AS).....	135
Engineering Science - Electrical / Computer Engineering (AS)	136
Engineering Science - Mechanical Engineering (AS).....	137
Geology (AS)	138
Mathematics (AS)	139
Physics (AS).....	140
Psychology (AS)	141
Workforce Degree Plans & Certificates.....	142
Accounting (AAS).....	142
Accounting (C1).....	143
Accounting - Payroll Specialist (C1)	144
Accounting - Forensic Accounting & Fraud Examination (ESC).....	145
Applied Horticulture - Landscaping Operations & Management (AAS)	146
Artificial Intelligence (AAS).....	147
Audio Recording Technology (AAS).....	148
Audio Recording Technology (C1).....	149
Audio Recording Technology - Electronic Music Production (C1)	150
Automotive Technology - Technician (AAS).....	151
Automotive Technology - Technician (C1)	152
Automotive Technology - Autobody / Collision Repair Technician (C1)	153
Automotive Technology - Maintenance & Light Repair (C1).....	154
Automotive Technology - Light Automotive Maintenance Technician (OSA).....	155
Banking / Finance (AAS).....	156

Banking / Finance - Financial Lending (C1)	157
Banking / Finance - Financial Operations (C1)	158
Banking / Finance - Teller Training (OSA).....	159
Business Management - General Business (AAS).....	160
Business Management - General Business (C1)	161
Business Management – Entrepreneurship (C1)	162
Business Management - Human Resource Management Specialization (AAS)	163
Business Management - Human Resource Management Specialization (C1).....	164
Business Management - Insurance Specialist / Associate (C1).....	165
Business Technology - General Office Administration (AAS).....	166
Business Technology - General Office Administration (C1).....	167
Business Technology - Human Resources / PeopleSoft Specialization (C1).....	168
Business Technology - Legal Office Assistant Specialization (AAS)	169
Business Technology - Legal Office Assistant Specialization (C1).....	170
Business Technology - Medical Office Specialist Specialization (AAS).....	171
Business Technology - Medical Office Specialist Specialization (C1).....	172
Business Technology - Microsoft Office Technology Specialization (AAS).....	173
Business Technology - Microsoft Office Technology Specialization (C1).....	174
Business Technology - Bilingual (C2).....	175
Child Development (AAS).....	176
Child Development - Administration (C1).....	177
Child Development - Early Childhood (C2).....	178
Child Development - Infant & Toddler Teacher (C1).....	179
Child Development - Teacher Assistant / Aide (C2)	180
Computer Programming - Applications Development - Cloud Computing & Application Development Specialization (AAS)	181
Computer Programming - Applications Development - Microsoft C# Specialization (AAS).....	182
Computer Programming - Applications Development - Microsoft C++ Specialization (AAS).....	183
Computer Programming - Applications Development - JAVA Specialization (AAS).....	184
Computer Programming - Database Administrator (C2)	185
Computer Programming - Mobile Application Developer (C2).....	186
Computer Programming - SharePoint Administrator (C2).....	187

Computer Programming - Web Application Developer (C2)	188
Computer Systems Networking - Cisco Specialization (AAS).....	189
Computer Systems Networking - Certified CISCO Network Professional (CCNP) (C1).....	190
Computer Systems Networking - Certified CISCO Network Associate (CCNA) (C1).....	191
Computer Systems Networking - Cyber Security Specialization (AAS).....	192
Computer Systems Networking - Cyber Security Specialization (C1).....	193
Computer Systems Networking - Cyber Security (C2).....	194
Computer Systems Networking - Information Technology Core (C1).....	195
Computer Systems Networking - Linux Server Administrator Specialization (AAS).....	196
Computer Systems Networking - Linux System Administration Specialization (C1).....	197
Computer Systems Networking - Linux Administrator (C2)	198
Computer Systems Networking - Microsoft Server Administration Specialization (AAS).....	199
Computer Systems Networking - Microsoft Server Administration (C1)	200
Computer Systems Networking - Microsoft Server Administration (C2).....	201
Construction Management Technology - General (AAS)	202
Construction Management Technology - General (C1)	203
Construction Management Technology - Construction General (C1).....	204
Construction Management Technology - Construction - Building Inspection Specialization (C1).....	205
Cosmetology Operator (AAS)	206
Cosmetology Operator (C2)	207
Cosmetology Instructor (AAS).....	208
Cosmetology Instructor (C1)	209
Cosmetology - The Art of Barbering (C1)	210
Cosmetology - Facial Specialist (C1)	211
Cosmetology - Hair Weaving & Braiding Entrepreneur (C1)	212
Cosmetology – Lash (C1).....	213
Criminal Justice - Law Enforcement (AAS)	214
Criminal Justice - Basic Peace Officer Licensing (C1).....	215
Culinary Arts (AAS).....	216
Culinary Arts - Prep Cook (C1).....	217
Culinary Arts (C2)	218
Allied Health - Dental Assisting (AAS).....	219

Dental Assisting (C1)	220
Dental Hygiene (AAS)	221
Diagnostic Medical Sonography (ATC)	223
Digital Communication - General (AAS)	224
Digital Communication - General (C1)	225
Digital Communication - General (C2)	226
Digital Communication – XR Design & Development Specialization (AAS)	227
Digital Communication - XR Design & Development Specialization (C1)	228
Digital Communication - XR Design & Development Specialization (C2)	229
Digital Communication - Digital Photography Specialization (AAS).....	230
Digital Communication - Digital Photography Specialization (C1)	231
Digital Communication - Digital Photography Specialization (C2).....	232
Digital Communication - Graphic Design Specialization (AAS)	233
Digital Communication - Graphic Design Specialization (C1)	234
Digital Communication - Graphic Design Specialization (C2).....	235
Digital Communication - Mobile Application (C1).....	236
Digital Communication - Visual Effects & Motion Graphics Specialization (AAS).....	237
Digital Communication - Visual Effects & Motion Graphics Specialization (C1)	238
Digital Communication - Visual Effects & Motion Graphics Specialization (C2).....	239
Digital Communication - Web Publishing Specialization (AAS)	240
Digital Communication - Web Publishing Specialization (C1).....	241
Digital Communication - Web Publishing Specialization (C2)	242
Digital Gaming & Simulation for Artists (AAS).....	243
Digital Gaming & Simulation for Artists (C2).....	244
Digital Gaming & Simulation for Programmers (AAS).....	245
Digital Gaming & Simulation for Programmers (C2)	246
Drafting & Design Engineering Technology - Computer-aided Drafting - General (AAS).....	247
Drafting & Design Engineering Technology - Computer-aided Drafting - General (C1)	248
Drafting & Design Engineering Technology - Computer-aided Drafting - Architectural Specialization (AAS).....	249
Drafting & Design Engineering Technology - Computer-aided Drafting - Architectural Specialization (C1)	250
Drafting & Design Engineering Technology - Computer-aided Drafting - Civil Specialization (AAS).....	251

Drafting & Design Engineering Technology - Computer-aided Drafting - Civil Specialization (C1).....	252
Drafting & Design Engineering Technology - Computer-aided Drafting - Electrical Specialization (AAS)	253
Drafting & Design Engineering Technology - Computer-aided Drafting - Electrical Specialization (C1).....	254
Drafting & Design Engineering Technology - Computer-aided Drafting - Mechanical Specialization (AAS)	255
Drafting & Design Engineering Technology - Computer-aided Drafting - Mechanical Specialization (C1).....	256
Drafting & Design Engineering Technology - Computer-aided Drafting - Pipe Specialization (AAS)	257
Drafting & Design Engineering Technology - Computer-aided Drafting - Pipe Specialization (C1)	258
Electronics Engineering Technology - Biomedical Electronics Specialization (AAS)	259
Electronics Engineering Technology - Computer Engineering Specialization (AAS).....	260
Electronics Engineering Technology - Basic Electronics (C2).....	261
Electronics Engineering Technology - Computer Servicing / Networks (C1).....	262
Emergency Medical Services (AAS)	263
Emergency Medical Services - Advanced Technician (C1).....	264
Emergency Medical Services - Paramedics (C1).....	265
Emergency Medical Services - RN to Paramedic (ESC)	266
Fashion Design (AAS).....	267
Fashion Design - Commercial Sample Maker (C1).....	268
Fashion Design - Digital Design (C1)	269
Fashion Design - Men's Tailoring & Alterations (C1).....	270
Fashion Design - Patternmaking (C1)	271
Fashion Design - Theatrical Costume Design (C2)	272
Fashion Merchandising (AAS)	273
Fashion Merchandising - Fashion Image Consultant (C1).....	274
Fashion Merchandising - Visual Merchandising (C1).....	275
Filmmaking - General (AAS).....	276
Filmmaking - Editing Specialization (C1).....	277
Filmmaking - Film / Video Production Specialization (C1).....	278
Filmmaking - Screenwriting Specialization (C1).....	279

Filmmaking - General (C2).....	280
Fire Science & Safety - Firefighter (AAS).....	281
Fire Science & Safety - Basic Firefighter (C1)	282
Fire Science & Safety - Fire & Arson Investigator (AAS)	283
Fire Science & Safety - Fire & Arson Investigator (OSA)	284
Fire Science & Safety - Fire Officer I (C1).....	285
Fire Science & Safety - Fire Instructor (OSA)	286
Fire Science & Safety - Fire Inspector (OSA).....	287
Geographic Information Science (AAS)	288
Geographic Information Science - Technician (C1).....	289
Geographic Information Science - Analyst (C2).....	290
Health Information Technology (AAS)	291
Health Information Technology - Analysis (C1).....	293
Health Information Technology - Coding (C2).....	294
Heating, Air Conditioning & Refrigeration (AAS).....	295
Heating, Air Conditioning & Refrigeration - Advanced (C1)	296
Heating, Air Conditioning & Refrigeration - Basic (C1)	297
Heavy Truck, Diesel, and Industrial Technology (C1).....	298
Heavy Truck, Diesel, and Industrial Technology - Diesel Preventative Maintenance (OSA).....	299
Histologic Technician (AAS)	300
Hospitality Management (AAS)	302
Hospitality Administration - Hotel Management (C1)	303
Hospitality Administration - Restaurant Management (C1).....	304
Hospitality Administration – Event, Meeting, and Conference Planning (C2) (Pending regional accreditation approval)	305
Human Service Technology (AAS)	306
Human Service Technology - Chemical Dependency Counselor (C1)	307
Human Service Technology - Certified Prevention Specialist (OSA)	308
Human Service Technology - Community Health Worker (OSA).....	309
Industrial Electricity - Electrical Technology (AAS).....	310
Industrial Electricity - Electrical Technology - Commercial (C1)	311
Industrial Electricity - Electrical Power Technology (C1)	312
Industrial Electricity - Industrial Automation Technology (C1)	313

Industrial Electricity - Solar Photovoltaic System Installer (C1)	314
Instrumentation & Controls Engineering Technology (AAS).....	315
Instrumentation & Controls Engineering Technology (C2).....	316
Interior Design (AAS).....	317
Interior Design - Interior Decorating (C1).....	318
Interior Design - Kitchen & Bath Design Professional (C2)	319
Interior Design - Interior Design Communication (OSA).....	320
International Business (AAS).....	321
International Business (C1).....	322
Interpreting / Sign Language - Interpreting Transliteration Technology (AAS)	323
Allied Health - Vocational Nursing Specialization (AAS)	325
Licensed Vocational Nursing (C1)	326
Logistics & Global Supply Chain Management - General (AAS).....	327
Logistics & Global Supply Chain Management – General (C1)	328
Logistics & Global Supply Chain Management Specialist (C1)	329
Logistics & Global Supply Chain Management - Maritime Transportation Logistics Specialization (AAS)	330
Logistics & Global Supply Chain Management - Maritime Logistics Specialization (C1).....	331
Machining Technology (AAS).....	332
Machining Technology - Basic Manufacturing / Machining (C1)	333
Machining Technology (C2).....	334
Machining Technology – Computer Numerical Controls (CNC) Specialization (AAS).....	335
Manufacturing Engineering Technology (AAS).....	336
Manufacturing Engineering Technology - Helper (C1)	337
Manufacturing Engineering Technology - Technician (C2)	338
Manufacturing Engineering Technology - High Value Manufacturing (C2)	339
Marketing - General (AAS).....	340
Marketing (C1).....	341
Marketing - Retailing (C1)	342
Marketing - Innovation & Enterprise Specialization (AAS).....	343
Marketing - Enterprise Development (C1)	344
Marketing - Social Enterprise (C1)	345
Allied Health - Medical Assistant (AAS).....	346

Medical Assistant - Medical Scribe (C1).....	347
Medical Assistant - Specialization (C2).....	348
Medical Laboratory Technician (AAS).....	349
Music Business - Administration Specialization (AAS).....	351
Music Business - Administration Specialization (C2).....	353
Music Business - Songwriting / Production Specialization (AAS).....	354
Music Business - Songwriting / Production Specialization (C2).....	355
Nuclear Medicine Technology (AAS).....	356
Nursing (AAS).....	358
Nursing – Transition to Registered Nursing (AAS).....	360
Occupational Therapy Assistant (AAS).....	361
Paralegal Technology - Legal Assistant (AAS).....	363
Paralegal Technology - Legal Assistant - General (C1).....	364
Paralegal Technology - Law Office Clerk (C1).....	365
Pastry Arts (AAS).....	366
Pastry Arts (C2).....	367
Pastry Arts - Baker (C1).....	368
Petroleum Engineering Technology (AAS).....	369
Petroleum Engineering Technology (C2).....	370
Allied Health - Pharmacy Technician - Specialization (AAS).....	371
Pharmacy Technician (C2).....	372
Pharmacy Technician - Retail (OSA).....	373
Physical Therapist Assistant (AAS).....	374
Process Technology (AAS).....	375
Process Technology - Process Operator (C2).....	376
Radiography (AAS).....	377
Radiography - Computed Tomography (ESC).....	379
Real Estate - General (AAS).....	380
Real Estate - Property Management (C1).....	381
Real Estate - Residential (C1).....	382
Respiratory Therapy - Respiratory Therapist (AAS).....	383
Allied Health - Surgical Technology - Specialization (AAS).....	385
Surgical Technology (C2).....	386

Surgical Technology - Endoscopy Technician I (C2)	387
Surgical Technology - Accelerated Alternative Delivery (AAD) (OSA)	388
Surgical Technology - Sterile Processing Technician (OSA).....	389
Translation & Interpretation (AAS).....	390
Translation & Interpretation (C2).....	391
Welding Technology (AAS).....	392
Welding Technology - Combination Pipe Welding (C1).....	393
Welding Technology - Structural Welding (C1).....	394
Continuing Education Degree Plans & Certificates.....	395
Advanced Manufacturing	395
Business.....	396
Construction Trades.....	398
Health	400
Industrial Technology and Energy.....	402
Information Technology	403
Public Safety.....	404
Transportation	405
Welding Technology	406
Alternative Teacher Certification Program.....	408
Languages – CE Intensive English	409
VAST Academy	410
Course Descriptions – Academic & Workforce	411
Course Descriptions – Continuing Education.....	608
Full-Time Faculty	627

2020-2021 CALENDAR

Calendars are also available online at www.hccs.edu/calendar

ACADEMIC CALENDAR	2020-2021
Sessions	Fall 2020
RT (16 weeks)	August 24 - December 13
F4A (First 4 weeks)	August 24 - September 20
F4B (Second 4 weeks)	September 21 - October 18
F4C (Third 4 weeks)	October 19 - November 15
F4D (Fourth 4 weeks)	November 16 - December 13
F8A (First 8 weeks)	August 24 - October 18
F8B (Second 8 weeks)	October 19 - December 13
SS (Second Start 12 weeks)	September 21 - December 13
DL1 (Dual Credit 15 weeks)	August 31 - December 13
DL2 (Dual Credit 14 weeks)	September 8 - December 13
Sessions	Spring 2021
Mini Session (4 weeks)	December 14 - January 11
RT (16 weeks)	January 19 - May 16
F4A (First 4 weeks)	January 19 - February 14
F4B (Second 4 weeks)	February 16 - March 14
F4C (Third 4 weeks)	March 22 - April 18
F4D (Fourth 4 weeks)	April 19 - May 16
F8A (First 8 weeks)	January 19 - March 14
F8B (Second 8 weeks)	March 22 - May 16
SS (Second Start 12 weeks)	February 16 - May 16
DL1 (Dual Credit 15 weeks)	January 25 - May 16
DL2 (Dual Credit 14 weeks)	February 1 - May 16
Sessions	Summer 2021
Mini Session (3 weeks)	May 17 - June 6
S8A (First 8 weeks)	June 7 - August 1
S1 (First 5 weeks)	June 7 - July 11
S10 (10 weeks)	June 7 - August 15
S2 (Second 5 weeks)	July 12 - August 15
HOLIDAY CALENDAR (no class)	2020-2021
Labor Day	September 7
Thanksgiving Break	November 26 - November 29
Winter Break	December 21 - January 3
Martin Luther King, Jr. - Observance	January 18
Presidents' Day	February 15
Spring Break	March 15 - March 21
Spring Holiday	April 2 - April 4
Memorial Day	May 31
Independence Day	July 4 - July 5

ABOUT HOUSTON COMMUNITY COLLEGE

www.hccs.edu/about-hcc

Mission Statement

Houston Community College is an open-admission, public institution of higher education offering a high-quality, affordable education for academic advancement, workforce training, career development, and lifelong learning to prepare individuals in our diverse communities for life and work in a global and technological society.

Vision Statement

Houston Community College shapes the future for all students with innovative, affordable, timely, responsive, and continuously improving educational programs and services. Partnered with the communities we serve, we take a defining role in regional economic, workforce, and social development.

Accreditation

Houston Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate degrees. Questions about the accreditation of Houston Community College may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

In addition to SACSCOC accreditation, many of HCC's individual programs are accredited by specialized accrediting agencies or professional associations. More information regarding these accreditations may be found under the title "Specialty Accreditations" section of www.hccs.edu/about-hcc/accreditation, and the associated Board Policy GK(LOCAL), available at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-g.

Board of Trustees

The Board of Trustees is the official governing body of Houston Community College. The Board is composed of nine members who are elected from single-member districts and who serve without remuneration. Board members are elected to staggered six-year terms. The Board has final authority to determine the policies that govern HCC. As part of their duties, Trustees maintain a schedule of community service, public appearances, speaking engagements and legislative affairs on behalf of HCC. Board members represent an impressive mix of individual talents and professional backgrounds enabling them to provide governance of the highest quality.

For more information on the Board of Trustees and its members, please see www.hccs.edu/about-hcc/board-of-trustees.

All Board policies can be found at www.hccs.edu/about-hcc/policies.

GENERAL INFORMATION

Equal Educational Opportunities Statement

As stated in Board Policy FA(LOCAL), Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. HCC does not discriminate and prohibits discrimination on the basis of race, color, religion, gender identity and gender expression, national origin, age, disability, sex, sexual orientation, or Veteran status in employment or the rights, privileges, programs, and activities generally accorded or made available to students at the school, administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school administered programs. A lack of English language skills shall not be a barrier to admission to and participation in HCC programs. To ensure compliance with Title IX and other federal and state civil rights laws, HCC has developed policies and procedures that prohibit discrimination in all of its forms.

HCC is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity.

All inquiries regarding compliance with Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 or other civil rights and non-discrimination laws should be directed to the following individual:

David Cross, Director EEO/Compliance, Title IX Coordinator/Section 504 Coordinator
Office of Institutional Equity
3100 Main, Suite 702
Houston, TX 77002
713-718-8271 or institutional.equity@hccs.edu

More information on these policies and programs follows in this Handbook and is available on HCC's website as described below.

Office of Institutional Equity

The Office of Institutional Equity (OIE) was established to ensure that all individuals have an opportunity to have full participation in the life of Houston Community College. Services provided by OIE include, but are not limited to:

- Ensuring compliance with HCC's policies and laws prohibiting discrimination and illegal harassment based on protected characteristics;
- Investigating complaints of discrimination initiated by students, faculty, staff, and the community, promptly and impartially;
- Providing training and education materials regarding Equal Employment Opportunity (EEO) and diversity compliance issues; and
- Developing new programs and metrics to advance diversity, inclusion, and multiculturalism at HCC.

For more information about OIE and its services, please visit www.hccs.edu/departments/institutional-equity.

Sexual Misconduct Information and Reporting

Any student who believes that he or she has experienced or that another student has experienced sexual harassment, sexual assault, dating violence, stalking, or other prohibited sexual conduct should immediately report the alleged acts to the institution's Title IX Coordinator or the Office of Institutional Equity (OIE).

All employees (full-time and part-time) are required by state law to report behaviors that potentially constitute sexual harassment, sexual assault, dating violence, or stalking. Therefore, any employee who becomes aware of such behaviors, whether informed directly or by a third-party, are obligated to make a report to the Title IX Coordinator with or without the consent of the person making the report to the employee.

Employees designated as "Confidential Employees" are exempt from making a full report to the Title IX Coordinator, though they must make a summary report. Confidential employees are professional counselors in the Counseling Services Department located throughout all HCC colleges. Counselors are available to provide a full range of confidential professional services to students, including personal and mental health counseling, consultation, crisis intervention, and links to local community resources. More information on counseling is provided elsewhere in this Handbook and on the HCC website.

For additional information or to make a report, please visit the following:

Office of Institutional Equity:

www.hccs.edu/departments/institutional-equity/

Title IX Know Your Rights:

www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights

Speak with a Title IX Contact:

www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/speak-with-a-title-ix-contact

Speak with a Confidential Employee:

www.hccs.edu/support-services/counseling/counselors-hcc/

Sexual Assault Policy for Students:

www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/sexual-assault-policy-for-students/

Title IX Complaint Form:

www.cm.maxient.com/reportingform.php?HoustonCC&layout_id=4

If you believe you or anyone else is in immediate risk to health or safety, call 911 or the HCC Police Department at 713-718-8888.

ADMISSIONS INFORMATION

General Admissions Criteria

A comprehensive community college system, HCC offers many programs designed to meet the needs of students according to their interests. As an open-admission, two-year undergraduate institution, HCC has an “open door” admissions policy; individuals who have at least one of the following qualifications are welcome to enroll:

- Accredited High School diploma; or
- High School Equivalency certificate; or
- College-level hours earned at other accredited colleges or universities; or
- International students who meet college and state requirements; or
- An eligible high school student.

Admission to HCC does not guarantee admission to a particular course or program. HCC utilizes the Texas Success Initiative (TSI) Assessment to assess the level of students’ reading, writing, and math skills. Based upon their assessment results and specific program objectives, students may be required to take developmental and/or prerequisite courses. If the TSI assessment exam is not available, students will be required to enroll in a co-requisite model with a paired college course and a developmental course to satisfy the TSI requirement. In addition, special admission requirements have been established for programs that require students to possess previously learned skills and knowledge. Applicants may obtain some additional admission criteria by visiting www.hccs.edu/applying-and-paying.

For further information regarding admissions to certain programs, see below.

The applicable Board policies FB(LOCAL) and FB(LEGAL) can be found at: www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f

Admissions Application

All students, except international students, must apply online using the Apply Texas website at www.applytexas.org. There is no charge to apply using the Apply Texas website.

The process for international student applications is contained in the section titled International Services and Programs below.

Admissions Application Deadline

The admissions application deadline is one week before the class start date. Students should submit the application at least one week before the class start date. The application deadline calendar is available at www.hccs.edu/applying-and-paying/application-deadlines.

New Student Checklist

After submitting an admissions application, students will receive a welcome email from HCC with a link to the student portal. The student portal will include a checklist of items that must be completed as part of the enrollment and registration process. These include items a student must submit and also required trainings and background information on various topics.

Online College Admissions

HCC does not have a separate admission policy for the Online College. All admission policies described above apply to all students regardless of course delivery modality. New online students may be asked to participate in an assessment that measures the student's readiness for online learning.

Health Science Program Admissions

Admission to HCC does not guarantee admission to a specific program. The HCC Health Sciences Programs have special conditions for admissions, including the following possibilities: successful completion of prerequisite courses, acceptable scores on the Health Information Systems, Inc. (HESI) or other exams, submission of a personal narrative, and/or personal interview. For details, please visit www.hccs.edu/centers/health-sciences.

Continuing Education Programs Admissions

Some HCC Continuing Education Programs have special conditions for admissions, including the following possibilities: successful completion of prerequisite courses, acceptable scores on prerequisite exams, criminal background checks, and/or special licenses or certifications.

For details, please visit www.hccs.edu/continuing-education.

Veteran and Military-Affiliated Students Admissions

Veteran and/or Military-Affiliated Students who plan to use VA/GI Bill and/or State of Texas "Hazlewood Act" educational benefits must follow the steps outlined in the applicable HCC enrollment checklist. Further information is available at Veteran & Military-Affiliated Student Success (VMAS) Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

Upon completion of the Admissions Application, Military, Veteran and/or Military-Affiliated students should contact an HCC Student Advisor to address questions regarding enrollment and/or gaining access to additional resources or information. Students may go to any advisor at any campus location. For information on how to contact a campus advisor, please see www.hccs.edu/support-services/advising.

Registration of Sex Offenders

The Texas Code of Criminal Procedure Section 62.153 requires each person who has been convicted of specific sexual offenses and who intends to attend classes at an institution of higher education to register with the HCC Police Department. Registered Sex Offenders seeking to attend HCC are required to register with the HCC Police Department within ten days of enrolling in class, but not later than the seventh day after the date the person begins to attend school. FL(REGULATION), referenced below, explains in detail the process Registered Sex Offenders should follow, including the process for enrollment in their academic program. Registered Sex Offenders must register with the HCCPD at the following location only:

Criminal Investigation Division of the HCC Police Department
3821 Caroline Street, Houston, Texas 77004
Monday-Friday: 8 a.m. - 4 p.m. (except during HCC closures or holidays)

More information can be found in the Student Code of Conduct and applicable Board policies FL(LOCAL); FL(LEGAL); FL(REGULATION) available at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

Re-admission

After Absence

Students who have not enrolled for two or more consecutive regular semesters (fall, spring) must complete the core residency questions and satisfy all applicable requirements for residency prior to registration. See Residency Information below.

After Suspension/Academic Withdrawal

Students seeking re-admission after being placed on enforced Academic Withdrawal or Suspension at HCC must attend a Student Learning Intervention Program (SLIP) session at the college they attend. Students may be required to enroll in specified courses and/or have their course load limited. Students may contact their Dean of Student Services or campus counselor with questions about this process.

Academic Fresh Start

Under the provisions of the Texas Education Code Section 51.931, Texas residents seeking to apply for admission or re-admission to HCC and/or any specialized program at HCC may elect to have academic course credit more than ten years old prior to the starting date of the semester in which they seek to enroll not be considered as part of the admissions process. An applicant admitted to HCC under this provision may not receive any course credit for courses taken ten or more years prior to enrollment. This means courses excluded under this provision may not be counted toward a degree, GPA calculations, academic standing or to meet pre-requisite requirements. Applicants interested in the Academic Fresh Start Program must meet all HCC admissions requirements and must submit official transcripts from all previously attended colleges and universities along with a petition found at www.hccs.edu/media/houston-community-college/district/pdf/Academic-Fresh-Start.pdf prior to admission to HCC.

ADMISSION FOR HIGH SCHOOL OR NON-CREDIT STUDENTS

Certain HCC programs require additional or special admissions information. Those programs are described briefly below.

High School Student Admissions and Enrollment

Currently enrolled high school or homeschooled students may enroll in the same volume of HCC courses (each semester) as a traditional HCC student. Students should furnish a high school transcript, TSI scores (or documentation of exemption from TSI requirements), and approval from their high school. These students will need to maintain a “C” average to continue taking courses at HCC without limitations.

Dual Credit

To be eligible for any dual credit course, a student may be currently enrolled in a public-school district, charter, private school, or be a homeschool student with an established memorandum of understanding (MOU) with Houston Community College. All dual credit MOUs are posted at www.hccs.edu/programs/dual-credit/dual-credit-memorandums-of-understanding.

Dual Credit students must complete an HCC admission application and submit an official high school transcript indicating PLAN, PSAT, TAKS, STAAR SAT, and/or ACT test scores (or bring the official test score report if test scores do not appear on the high school transcript). Dual Credit students are also allowed to take the Texas Success Initiative (TSI) Assessment to qualify for college courses taught as dual credit. Academic Dual Credit Courses: To be eligible for academic dual credit courses, high school students must pass the applicable areas of a Texas Success Initiative. The student may be exempt from state mandated TSI testing if the student meets the qualifying standards on applicable areas of the SAT, ACT, PLAN, PSAT, or qualifying STAAR scores by subject. Students may take college level courses related to the area(s) of the test they pass. A student must also meet institutional course prerequisites. Dual Credit students must take only courses that apply directly to their pathway and degree plan.

In 2015, House Bill 505 removed limitations on the number of classes a dual credit student may take. However, Houston Community College recommends that students taking more than two classes per semester possess a 3.0 or higher grade point average in high school coursework. Dual Credit students, like all college students, are responsible for purchasing required textbooks and other essential course materials. The exception is in cases where the high school provides textbooks. All Dual Credit instructional material is based on the recommendation of the academic or workforce department. The Houston Community College Board of Trustees has waived tuition and fees for dual credit students residing within the taxing district (In-District) of the College. Students outside (Out-of-District) taxing districts may take dual credit classes at a cost of \$65.00 per course. If taught in the high school, the dual credit class must be composed solely of dual credit and/or college credit students, not traditional high school students.

For Dual Credit courses, grading criteria allow faculty the opportunity to award high school and college credit based on the student’s performance. For further information, contact any HCC College P-16 Director at one of the college locations. Contact information is available at www.hccs.edu/programs/dual-credit/

Senate Bill 1091 limits the courses students may take. The options are to take academic core courses, career and technical education courses, or foreign language courses. Students enrolled in Early

College High Schools are exempt from this legislation. Dual credit students must be placed on a degree plan when they enroll in the dual credit program.

Articulated Credit

HCC participates in the Advanced Technical Credit (ATC) program (commonly known as statewide articulation), which provides an educational and training structure that is sensitive to the transition of high school students to college. The process that facilitates an orderly progression through programs of instruction is commonly referred to as “articulation.” Articulation agreements have been developed between HCC and school districts within the service area. These articulation agreements allow students to successfully complete certain Career and Technical Education (CTE) courses in high school to receive college credits, contingent upon enrollment in a similar Career and Technical Education program at HCC. The high school course must be on the state-approved articulated list and taught by an instructor who meets the HCC credential standards as defined by SACSCOC. Students will only be awarded articulated credit if they received a letter grade of “B” or higher in the high school course while maintaining an overall high school GPA of at least a “C.” Students also will be awarded credit only if the course is a requirement of their degree or certificate.

Any individuals interested in majoring in Workforce (CTE) programs who want to know if they qualify for articulated credit under an Advanced Technical Credit agreement should contact an HCC Dual Credit Success Coach, Advisor, or the appropriate program Department Chair. Students may apply for additional placement credit for no more than 25-percent of the degree hours. Credit for more than four courses in any one subject area requires special approval.

Early College High School Students

Early College High Schools (ECHS) provide students with a “seamless” pathway from high school to college. ECHS allows high school students to complete a two-year degree while working through a traditional high school degree plan. After tackling this rigorous course of study, students graduate high school while earning up to sixty college credits, most of which are transferable to the post-secondary institution of their choice. ECHS provides strong support to students and their family in obtaining entrance to, and success in, higher education. For a listing of ECHS, please visit www.tea.texas.gov/echs.

Homeschool and Private/Charter School Students

Homeschooled students may attend Houston Community College as dual credit students. They must meet the same requirements as dual credit students enrolled in public or private high schools and follow the same process of admittance to Houston Community College. In addition, they must document their status as homeschooled students, along with all pertinent information required to register for classes at Houston Community College.

The Houston Community College P-16 Directors facilitate processes, consistency, standards, and procedures for homeschoolers who attend Houston Community College as dual credit students.

Private and charter school students may take dual credit courses at Houston Community College, on campus or online, but must work through the administration of their high school. Private and charter schools who want dual credit as an option for their students must have established partnerships with Houston Community College.

For more information including campus contacts, please visit the Dual Credit website at www.hccs.edu/dual-credit.

Admissions for Minors

Students who are 16 years old or younger AND have graduated from high school may be eligible for special admission to Houston Community College. Applicants who are admitted under the special admission process can enroll in college courses at an HCC campus or online.

In addition to the regular admission process, students age 16 years or younger must:

- Show proof of education indicating graduation from public high school or completed secondary education according to the same general standards as those students who graduated from public high school; and
- Once admitted, meet with the Dean of Student Success prior to registering for the first semester.

Students under the age of fourteen must have a parent or legal guardian available at the HCC campus site at all times when their child is attending each class. This is required to help monitor the student's activities and to be immediately available in case of an emergency. While on site at HCC, the parent or legal guardian will not attend class in the student's classroom with the student. Failure to be available on campus or insistence on being in the student's classroom may cause the student to be removed from each enrolled class.

Non-Degree Seeking

A non-degree seeking applicant is admitted on the basis that coursework will be taken for personal enrichment and not for the purpose of seeking a degree or certificate. Non-degree seeking students may not enroll in more than a total of twelve semester credit hours and are not eligible for state or federal financial aid.

SPECIAL PROGRAM ADMISSIONS

As described below, certain HCC programs are available to students meeting special criteria. Students seeking admission to special programs should identify the programs to which they want to apply and follow the directions on the corresponding website.

Upward Bound

The Upward Bound (UB) Program emerged as the first federal program from the Economic Opportunity Act of 1964. Two other programs joined by 1968 to form TRIO; those programs were Talent Search and Student Support Services. Today there are nine programs under the TRIO umbrella and seven of them provide services directly to students.

Upward Bound is a federal program sponsored by the U.S. Department of Education to provide fundamental support to participants in their preparation for college. UB provides opportunities to high school students from low-income families, from families in which neither parent holds a bachelor degree, and who show an academic need. The mission of UB is to assist high school students to complete secondary education and enroll in and graduate from institutions of postsecondary education. Upward Bound takes a holistic approach in preparing students academically, personally, and emotionally for the future. Upward Bound is a rigorous year-round college preparatory program that provides the following services:

1. Academic classes in Math, English, Science, Computers, Foreign Language;
2. Counseling, both academic and individual;
3. Tutorials for all subjects;
4. Cultural enrichment activities;
5. Workshops;
6. University tours;
7. Six-week summer program;
8. Work-study and internships; and
9. Financial literacy for students and parents.

Houston Community College supports the mission and objectives of Upward Bound. HCC was an early supporter of TRIO programs and has hosted Upward Bound on its campuses since 1974 at Central Campus. In 1999, HCC applied and was granted a second Upward Bound program at Southeast Campus. Combined, HCC serves around 200 high school students as part of its Upward Bound family.

Upward Bound is a college preparatory program hosted at HCC and recruits from Houston Independent School District (HISD) at these high schools: Sam Houston, Yates, Austin, and Northside. Each interested student will complete an application, and an interview will be conducted with the parent and the student. Students will need to submit documents with the application to support their eligibility. Eligibility and acceptance are based on the documentation provided. Students must meet the following criteria: 1) Low Income; 2) First Generation in college; 3) Academic Need; 4) U.S Citizen, Permanent Resident. All students must be between the ages 13-19, attend or are zoned in one of the high schools mentioned above, and have finished the eighth grade before joining the program.

For more information, visit www.hccs.edu/support-services/upward-bound.

VAST Academy (Vocational Advancement and Skills Training)

The VAST Academy provides post-secondary transition programs and comprehensive support services which lead to meaningful credentials, employment and independence for individuals with intellectual and developmental disabilities at three college campus locations: Central, Northwest/Spring-Branch and Southwest/Stafford. Opportunities include workforce certificates, pre-college and freshman success bridge courses, career readiness credentials, internships, and employment assistance offered through an inclusive, relevant, affordable, and supportive environment. VAST Academy offers a Career Readiness/Occupational Skills Certificate under HCC's Division of Extended Learning, School of Continuing Education. The program's successful supportive strategies include person-centered planning, peer mentoring, independent living, and internships based on students' interests and skills.

HCC's VAST Academy has a formal admissions process. For information on admissions criteria, requirements and steps to apply please visit the website at www.hccs.edu/vast.

Honors College

The HCC Honors College is located at four campuses: Central, Northwest/Spring Branch, Southeast/Eastside and Southwest/Stafford. It offers high achieving students the opportunity for enriched instruction, leadership development, and the opportunity for study/travel abroad. The program is designed for full-time students beginning their college experience or with limited HCC credit hours (under fifteen). Students study together in cohorts for their core curriculum classes. Qualified students can receive scholarships and textbook assistance. To be eligible, students must have a 3.5 high school GPA or 3.5 HCC GPA, and college-ready scores on TAKS, SAT, ACT, or TSI. The Honors College application must be completed separately from the HCC application and all students are interviewed before acceptance. The application deadline for prior admissions is March 1, and for regular admissions on May 1 (or until the freshman class fills). The Honors College will continue to accept applications past the May 1 deadline until all slots are filled and thereafter, only as alternates on a waiting list. To access the application, go to the Applications/Deadlines section of www.hccs.edu/programs/honors-college. For more information, contact the Honors College Executive Director at 713-718-5203.

RESIDENCY INFORMATION

Establishing Residency

HCC is required by state law to determine the residency status of all students for tuition purposes. Students who have not enrolled for two or more consecutive regular semesters (fall and spring) must complete the residency core questions and satisfy all applicable requirements to establish residency. Additional documentation may be requested at any time following registration. Residency is determined at the time of registration, either by a student's current address or by the address of a parent or legal guardian if the student is being claimed by his/her parents or is eligible to be claimed by his/her parents as a dependent for federal income tax purposes. A post office box can be used for a mailing address, but cannot be used to establish residency. It is the responsibility of the student to register under the correct residency classification. A complete set of rules and regulations for determining residency is available at each campus's Admissions Office.

For tuition purposes, a student will be classified according to the following guidelines. The Registrar is the final authority on all questions of residency. For more information on residency or to see the list of approved documentation, visit www.hccs.edu/applying-and-paying/residency-information.

Basic Residency Requirements

For tuition purposes, according to Texas law, all students must answer a complete set of core residency questions within the admissions application. These questions will be used by the institution to determine if the person is a resident. The following persons shall be classified as Texas Residents and entitled to pay resident tuition at all institutions of higher education:

- A person who was enrolled at a Texas public institution during a fall or spring semester within the previous twelve months and was classified as a Texas resident for tuition purposes.
- A person who graduated from a public or accredited private high school in this state or as an alternative to high school graduation, received the equivalent of a high school diploma in this state AND maintained a residence continuously in this state for the 36 months immediately preceding the date of graduation, or received the diploma equivalent as applicable and the twelve months preceding the census date of the academic semester in which the person enrolled.
- A person or a dependent whose parent established a domicile in this state not less than twelve months before the census date of the academic semester in which the student enrolled in an institution AND maintained a residence continuously in the state for the twelve months immediately preceding the census date of the academic semester in which the person enrolled in an institution.
- If basing residency on a spouse and have been married at least twelve months, residency may be classified based on the spouse's qualifications for residency.

In-District Residency

Students who have met the basic Texas residency requirements and live in HCC's taxing district (Alief ISD, Houston ISD, Stafford MSD, and part of Missouri City) are considered in-district residents.

Students must reside at a street address in HCC's taxing district. Post office boxes and dormitory addresses cannot be used.

Out-of-District Residency

Students who have met the basic Texas residency requirements and live outside HCC's taxing district are considered out-of-district residents.

Out-of-State Residency

A student who has not resided in Texas for twelve months immediately preceding registration is considered out-of-state, except for certain exceptions described below. A non-resident student classification is presumed to be correct as long as the residence in the state is primarily used for the purpose of attending school. To be reclassified as a resident (after one or more years of residency), the student must show proof of intent to establish Texas as his/her permanent legal residence.

See the section on Veterans Services for information regarding residency determinations of Veterans and Military-Affiliated Students.

International Student Residency for Tuition Purposes

An international student is a non-U.S. citizen who is not classified a resident alien by the U.S. Government.

International students living in the United States under an eligible visa permitting residence must provide documentation and meet the same requirements as a U.S. citizen to qualify for Texas resident status for tuition purposes.

Undocumented Students

Texas State Law states that undocumented students can be admitted to the College and be considered a resident of Texas for tuition purposes if the undocumented student resided in Texas, and met the conditions listed below:

- Graduated or will graduate from a Texas public or private high school or received the equivalent of a high school diploma in Texas; and
- Resided in Texas for 36 months leading up to graduation from high school or receiving the equivalent of a high school diploma; or
- Has resided or will have resided in Texas for the twelve months prior to the census date of the semester in which the student will enroll in the college; and
- Has signed the Affidavit of Intent to Become a Permanent Resident provided by the College that states the student has filed or will file an application to become a permanent resident at the earliest opportunity the student is eligible to do so.

If the student does not meet these criteria, the student may still enroll, but will be classified as out-of-state for tuition purposes.

Change of Residency

The change from out-of-district residency to in-district residency must be made at the time of registration. Any address change which results in a change to in-district status must be accompanied by adequate documentation. Changes to in-district status made after registration will be effective the following semester. A student who qualifies for a change from out-of-state to in-state residency

status for tuition purposes may file a petition for change of residency. The petition must be filed with the Office of the Registrar or Enrollment Services Office at any of the Colleges before the 12th day of class for the regular (16-week) term in order to receive any refund of excess tuition paid for that term.

Penalties

Any student who provides false information or withholds information for proper determination of residency, admission, or enrollment is subject to any or all of the following penalties:

- Withdrawal from all classes with no refund
- Dismissal from the institution
- Payment of the difference in fees within thirty days
- Loss of credit earned while under incorrect residency status

These determinations will be made by the processes described in the Student Code of Conduct. See Student Code of Conduct or Board Policy FLB(LOCAL) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f for more information. In the case of certain types of fraud, students may be subject to additional state, federal, or criminal penalties.

Additional Information for Non-U.S. Citizen Students

A non-U.S. citizen who is living in the United States under permanent resident status, has an appropriate visa, or who has filed an I-485 application for permanent residency and has been issued a notice of action from U.S. Citizenship and Immigration Service (USCIS) showing that the I-485 has been approved, has the same privilege of qualifying for resident status, for tuition purposes, as a U.S. citizen. Anyone permitted by Congress to adopt the United States as their domicile while living in this country is afforded the same privilege as citizens and permanent residents to establish Texas residency for tuition purposes.

COST OF ATTENDANCE AND EXEMPTIONS/ WAIVERS INFORMATION

Students are required to pay tuition and mandatory fees based on residency, as discussed above, and are subject to certain waivers and exemptions described elsewhere in this Handbook. Tuition and fee rates are published on the HCC website and can be accessed at www.hccs.edu/applying-and-paying/tuition-calculator.

Some courses have additional fees specific to that course, such as laboratory and program fees. Check course listings for the additional fees. More information on course fees is contained below.

HCC charges a higher tuition rate to students registering for the third or subsequent time for certain courses. Students who enroll for most credit and Continuing Education Unit (CEU) classes for a third or more time will be charged an additional \$50 per semester credit hour and \$3 per contact hour, except for courses exempted by the Texas Higher Education Coordinating Board.

Parking fees are not part of the published standard Tuition and Fee rates. Therefore, parking fees will be billed separately from these established rates. At this time, there is no charge for parking at most HCC locations.

HCC reserves the right to change its tuition and fees and refund policy structure wholly or in part during the year covered by this Handbook. Select fees are explained in more detail below.

Tuition and Fee Schedule for Academic Year 2020-2021

Visit www.hccs.edu/applying-and-paying/tuition-calculator for the most up-to-date information.

Semester Credit Tuition Fees

Description	Amount
In District	
Tuition (\$50 minimum)	\$33 per hour
Out of District	
Tuition Out-of-District (\$138 minimum)	\$121 per hour
Out-of-State	
Tuition Out-of-State (\$240 minimum)	\$151 per hour

Mandatory Fees

Description	Amount
General Fee	\$25.50 per hour
Out-of-District General Fee	\$33.50 per hour
Out-of-State General Fee	\$50 per hour
Technology Fee	\$25 per hour
Student Activity Fee	\$1 per hour
	(\$12 maximum)
Recreation Fee	\$6 per semester

Other Incidental Fees

Description	Amount
Deferment/Reproduction Fee	\$50
Drop/Add Fee	\$15
Lab Fee	\$4 - \$50
International Student Application Fee	\$75
International Student Insurance Fee	Based on Insurance Vendor Pricing
International Student Orientation Fee	\$50
Installment Plan Enrollment Fee	\$30
Installment Plan Late Fee	\$10 per late installment
Reinstatement Fee	\$75
Repeater Fee	\$50 per hour
Returned Check Payment Fee	\$25
Stop Payment Fee	\$25
Transcript Fee	\$5
Transcript Fee through Service Provider	Based on Service Provider Price

Testing Fees

Description	Amount
Advance Standing Examination for College Credit Fee	\$25 per course
Advance Standing Credit Evaluation	\$25 per evaluation
ACCUPLACER College Level Math	\$10 per attempt
ACCUPLACER ESL	\$29 Initial Test \$10 Retest
CLEP Test	\$12
Correspondence Test - Proctoring Fee	\$25
EMT Testing Fee	\$29 - \$209
HESI	\$45 - \$88
National Registry Test Fee	\$80 - \$125
NCLEX-RN Prep Fee	\$23 - \$45
Medical Assistant Exam Fee	\$125
State Fire Fighter Exam Fee	\$85
Surgical Technology Exam Fee	\$190
TEAS	\$86
TSI Assessment	\$29 All Sections \$10 Per section

Course Specific Fees

Description	Amount
Adult High School Materials Fee	\$10/\$20 (Art, BCIS, & BIM)
Adult High School Tuition	\$275
Computer Science Program Fee	\$24 - \$75
Commercial Music Fee	\$75
EMS AHA Card Fee	\$3 (CPR) \$15 (Advanced)

Description	Amount
EMS OR Fee	\$25 (Basic) \$40 (Advanced)
EMT Online Web Tool Fee	\$110
HS-Film Badge Fee	\$10 - \$26
HS-Liability Insurance Fee	\$10 - \$34
Music Fee	\$145
Phlebotomy Liability Fee	\$12
Phlebotomy Materials and Supplies	\$10 - \$60
Police In-Service Mat/Test Fee	\$50
AEL Registration Fee Literacy	\$20
AEL Registration Fee Math & Reading	\$60
Software Access Fee	\$60

Exemptions and Waivers

HCC offers tuition and fees exemptions and waivers to eligible students, including the Hazlewood Exemption and Military Waiver for Veteran and Military-Affiliated students.

To view the full list of exemptions/waivers, visit

www.hccs.edu/resources-for/current-students/student-financial-services/waivers-and-exemptions.

Flexible-Entry Course Fees

The cost of courses taken in the flex-entry term is the same as for regular semester-hour courses.

Laboratory/Supply Fees

Laboratory supply fees, which help defray the cost of materials used in lab classes, vary. Certain programs have program-specific fees. Check course listings for additional fees in some classes.

Continuing Education Unit Course Tuition and Fees

Continuing Education Unit (CEU) course tuition and fees are based on the expenses unique to each course and/or program. Therefore, each course is priced individually. For a schedule of classes and for more information on tuition and fees and refunds, contact the School of Continuing Education at 713-718-5303 or visit www.hccs.edu/continuing-education.

Adult High School Costs

Adult High School offers both credit recovery and original credit programs designed to assist current high school students. For more information on the program, see the Adult Education & Literacy Programs: Adult High School section of this Handbook below. The costs associated with this program are as follows:

- Recovery Credit - \$175 per half-credit
- Original Credit (online) - \$275 per half-credit

Tuition Rebate Program

Consistent with state law, HCC students who go on to graduate with a baccalaureate degree from a Texas public university may qualify to receive \$1,000 from the baccalaureate-granting institution if they meet the following criteria:

- Must have enrolled in a Texas public institution of higher education in fall 1997 or thereafter;
- Must have been a resident of Texas and entitled to pay in-state tuition at all times while pursuing the degree;
- Must have received a baccalaureate degree from a Texas public university; or
- Must have attempted no more than three hours in excess of the minimum number of semester hours required to complete the degree in the catalog under which one graduated.

Hours attempted include transfer credits, course credits earned exclusively by examination, courses that are dropped after the official census date. Hours attempted shall not include: course credit that is earned to satisfy requirements for a ROTC program but that is not required to complete the degree program; course credit, other than course credit earned exclusively by examination, that is earned before graduating from high school; and courses dropped for reasons that are determined by the institution to be totally beyond the control of the student.

Students are encouraged to consult advisors to plan their course of study at the community college level to maximize their chances of qualifying for this rebate when they transfer and graduate from a college or university with a baccalaureate degree, and to look at baccalaureate granting investing.

Tuition and Fees Payment

When a student registers for any class at Houston Community College (HCC) or receives any service from HCC, that student accepts full responsibility to pay all tuition, fees, and other associated costs assessed as a result of registration and/or receipt of services.

Students should carefully review the Student Financial Responsibility Agreement and Acknowledgment of HCC Policies to understand their financial obligations to HCC:

www.hccs.edu/resources-for/current-students/student-financial-services/student-financial-responsibility-agreement

Tuition bills will not be mailed to students. Students may view or print their current bill by logging into their student account by visiting www.myeagle.hccs.edu. Students with questions about their tuition can contact the Bursar's Office at 713-718-5077.

Payments and Payment Plans

HCC makes education affordable to students. Students have several options to pay their tuition and fees. Information on the payment options available to students, including installment plans, is available at:

www.hccs.edu/resources-for/current-students/student-financial-services/payments-and-payment-plan

At the time of registration, students will need to select their intended payment option to complete their enrollment. All HCC students are expected to pay their account balance in full or make payment arrangements according to the payment option selected during enrollment. For each payment option, payment to HCC is required within a specific timeframe. Students are not registered for any course until the full account balance is paid in full, or a payment plan contract is executed.

Students who fail to make payments within the payment timeframe allotted may be dropped from some or all classes and will be required to register again. Course/section availability cannot be guaranteed upon re-registration.

Students are responsible for paying all charges arising from registration/enrollment. These may include charges arising from reduction of financial aid award(s) due to change in enrollment and/or eligibility status. More information about Financial Aid can be found elsewhere in this Handbook.

Pay Online

Tuition and fees can be paid in full online by visiting www.myeagle.hccs.edu and following the steps outlined below:

- On the MyEagle home page, select “Student Sign-In.”
- Enter Web User ID and Password or follow the instructions to obtain the Web User ID and Password.
- After signing on, verify address and phone data. If no changes are necessary, click on continue.
- Acknowledge Student Financial Responsibility and HCC Policies to continue.
- On the Student Center, click “Make a Payment or Set up a Payment Plan.”
- Select “Click here to make a payment” or “Enroll in Payment Plan.” Complete the payment plan enrollment as directed.
- Enter credit card/checking account information.
- Enter student email address.
- Review information.
- Submit payment.
- Receive confirmation that payment has been accepted.

If the credit card is declined, a student may repeat the process using a different credit card.

Pay in Person

When campuses are open and during certain hours, students may pay by check, credit card, or money order at any cashier’s window. Students may call the Cashier’s Office prior to visiting a campus to confirm that their preferred payment method is accepted at that specific location.

If students are receiving a tuition waiver or tuition is billed to a company or agency, those students must present the waiver or voucher to pay in person. The remaining balance should be paid in full or a Payment Plan must be set up.

A complete listing of all Cashier's Offices by college, including contact and location information, can be found at www.hccs.edu/applying-and-paying/business-office-locations.

Returned Checks

A \$25 returned check fee may be assessed when a check payment or an electronic check (e-check) payment is returned unpaid.

Delinquent Student Account Balances

Holds will be placed on the student record preventing registration, grades, transcripts, and other college services as the account balance becomes delinquent. Balances not settled may be forwarded to a collection agency. It is the student's responsibility to pay collection fees, which may be based on a percentage at a maximum of 24-percent of the debt, and all costs and expenses, including reasonable attorney's fees, incurred in such collection efforts.

Notification of the outstanding student account balance is delivered by email to the student's college email address and/or personal emails on file. Students can always view the balance and details online. It is the student's responsibility to update their email and mailing addresses each time there is a change. Notifications sent by the College through any of these addresses are considered delivered.

Students are encouraged to check their account balance by logging into their student account by visiting www.myeagle.hccs.edu.

Refunds and Credit Balances

HCC Eagle Card

HCC uses BankMobile Disbursement to manage student refunds through the HCC Eagle Card. Students can choose either to open a BankMobile account or have their refunds deposited to an existing account by clicking "Choose a Refund Option" button on their student center page.

Credit Balances and Refunds

Credits generated as a result from dropped/cancelled courses and/or arising from overpayments shall be refunded after the official date of record or earlier upon student request to bursar.refunds@hccs.edu. Credits resulting from credit card payments shall be refunded to the same credit card used for initial payment as the first option. However, if it is not practicable, HCC may refund it through HCC Eagle Card. Credits resulting from cash, checks, and money order payments will be reimbursed through BankMobile Disbursement.

Amount of refunds for withdrawals are determined in accordance with the Drop and Withdrawal Refund Schedule based on total semester fees. If the student has established a payment plan, any remaining installment payments due are deducted from the refund amount. Any reduction in the balance due to a withdrawal will be adjusted on the remaining installments.

Course withdrawal does not release the student from the obligation to pay any balance owed to the College. One hundred percent refund before class begins of ALL tuition and fees will be made when the College chooses not to offer the class, College error is involved, or before the applicable drop deadline. See below for additional information.

Refund of Financial Aid Residual

The Financial Aid Office determines the schedule of financial aid refunds in accordance with the requirements of the Department of Education. More information is available by calling the Financial Aid District Call Center at 713-718-2000, and select option 2.

Drop and Withdrawal Refund Schedule

100% Refund Dates on Drops/Withdrawals are listed on the schedule and are determined by state law. *

Class Length	Last Day for 70% Refund *	Last Day for 25% Refund*
2 or less wks.	2nd day	n/a
3 wks.	3rd day	4th day
4 wks.	4th day	5th day
5 wks.	5th day	6th day
6 wks.	5th day	7th day
7 wks.	7th day	9th day
8 wks.	8th day	10th day
9 wks.	9th day	11th day
10 wks.	9th day	12th day
11 wks.	10th day	14th day
12 wks.	12th day	15th day
13 wks.	13th day	16th day
14 wks.	13th day	17th day
15 wks.	14th day	19th day
16 wks. or more	15th day	20th day

*A \$15 Change of Schedule Fee is deducted after computing the percentage refund.

All non-refundable fees will be deducted before the percentage for refund is applied.

Non-Refundable Fees

NOTE: HCC does not refund the following fees for any reason other than that the selected class fails to have adequate enrollment to be offered in the selected term.

Drop/Add - \$15

Returned Check - \$25

Stop Payment - \$25

Payment Plan Enrollment - \$30

Payment Plan Late - \$10

International Application - \$75

(One-time charge for F, M, or J Visas only)

International Orientation - \$50

Deferment/Reproduction - \$50

Transcript - \$5*

Transcript via Overnight Express or Fax - \$15

Advanced Standing Examination for College Credit (per course) - \$25

Advanced Standing Credit (per evaluation) - \$25

*An additional service provider fee is required if transcript is requested by phone or online. There is no fee if a transcript is requested in-person. During times no in-person request is possible, all requests must be received by phone or online.

Continuing Education Refund Policy

A full refund can only be awarded if a student withdraws before or on the first class meeting date or if the class is cancelled. There are no partial refunds.

Refunds are processed between one to two weeks after the credits resulting from dropped or cancelled classes. If the payment is made by credit card, it will be refunded via credit card. If the payment is made by cash, check, or money order, it will be reimbursed by check. Tuition and fees paid directly to the institution by a sponsor or covered by scholarship shall be refunded to the source rather than directly to the students.

Refunds may only be mailed to the name and address on the student's record. Any refund mailed to the name and address on record is considered delivered. The Stop Payment Fee to re-issue a refund check mailed to an incorrect address is \$25 which will be deducted from the re-issued refund.

ACADEMIC INFORMATION

HCC recognizes that we live in dynamic and changing times, which require an institutional response, including changes to learning modalities and curriculum. HCC encourages students and community members seeking up-to-date information about changes related to current events, including the COVID-19 pandemic emergency, to seek information at www.hccs.edu, including www.hccs.edu/resources-for/current-students/communicable-diseases/.

Guidelines for Fall 2020 Learning Options

In response to health and safety guidelines regarding the Coronavirus, HCC is implementing new procedures in each of its learning options during fall 2020. Learning modalities and procedures will be updated for the remainder of the school year, including Spring 2021 and information may be obtained at www.hccs.edu/campaigns/college-your-way/.

All students, regardless of their selected learning options, will still have access to the support available to help with their success, including tutoring, student life, basic needs support, career and employment services, counseling and ability services, and supplemental instruction. HCC also provides financial aid options.

Lab Based courses will be held in person so HCC students can obtain the critical hands-on, skills-based learning experiences needed for success. However, attendance in labs will be restricted in size so proper social distancing standards can be maintained. Consequently, students will find more lab sections available at a variety of times. To keep the students, faculty, and staff protected when on campus, HCC has implemented new safety protocols on all campuses, including the use of face coverings.

Flex Campus gives students the choice to participate in class in person or online. Because of health and safety concerns, on campus participation will be similar to the Online on a Schedule option, with only a small portion of students in Flex Campus in class each time the class meets.

For example, following health and safety guidelines, a class that has 27 students enrolled will allow nine students to participate in the class in person each time the class meets. The remaining 18 students will participate online (at the scheduled class time) using a video conferencing platform. Exact numbers and plans will be communicated to enrolling students.

HCC is developing and implementing technology to enable both in-person and online participation for each class session.

Here is what students can expect with Flex Campus classes:

- Faculty will teach at the scheduled class time and students will participate online and in person at the same time.
- Students participating in person (in the actual classroom) will be limited based on social distancing guidelines at the time (it is expected that these limits will be similar to no more than ten people in the room).
- Each time the class meets, students will have the opportunity to sign up to attend in person.
- Once in-person slots are filled, all other students in the class session will participate online through a video conferencing platform.
- Everyone in the class will be required to participate online at times. This way all students have a chance to come to class in person should they desire.
- Access to a computer and WIFI is necessary to complete the class successfully.

- Classrooms will be cleaned before use each time, and students who attend in person will be required to follow all safety protocols established by HCC, including social distancing and the use of face coverings.

Online Anytime gives students the flexibility to complete coursework throughout the semester at times that works best for them. When a student enrolls in Online Anytime at the beginning of a semester, the course instructor will share pre-determined deadlines and requirements, along with the syllabus and full details of all assignments that must be completed to successfully finish the course. This option—most like a traditional online course—gives students the flexibility of completing coursework without visiting the campus. Access to a computer and WIFI is necessary to complete this class successfully.

Online on a Schedule allows students to take classes online, but at scheduled dates and times. Instead of visiting the campus for class, students log into the class online at the specified time they selected during registration. This gives students a safe and flexible learning option that allows for more interaction with professors and classmates without coming to campus. Access to a computer and WIFI are necessary to complete this class successfully.

Course and Program Definitions

The following definitions are in alignment with state regulation – Definitions:

- Online Course – A course in which the majority of the instruction takes place in an online forum. An online course may include mandatory face-to-face sessions totaling no more than fifteen percent of the total instructional time. Examples of face-to-face sessions include orientation, laboratory, exam review, or in-person tests.
- Online Programs – A program in which the majority of the curriculum is delivered in an online forum. An online program may include mandatory face-to-face courses totaling no more than fifteen percent of the total curriculum.
- Hybrid Course – A course in which a majority (more than 50 percent but less than 85 percent) of the instruction takes place in an online forum. Hybrid courses should have regularly designated face-to-face and online sessions throughout the academic term.
- Hybrid Programs – A program in which a majority of the curriculum (more than 50 percent but less than 85 percent) takes place in an online forum. The remainder of the curriculum is delivered traditionally via face-to-face instruction.
- Traditional Course – A course in which the majority of instruction occurs during regularly-scheduled, face-to-face sessions in a conventional classroom environment. A traditional course may incorporate online mechanisms to deliver portions of the course; however, the majority of instruction should occur during the regularly scheduled, face-to-face sessions.
- Traditional Programs – A program in which the majority of curriculum is delivered via face-to-face instruction. A traditional program may deliver some of the curriculum via an online forum; however, the majority of curriculum would be delivered via face-to-face instruction.

Online Courses

HCC's online courses are one to four credit hours and are equivalent to on-campus courses in terms of transferability (no distinction is made on the transcript). Students are encouraged to visit the Online College's homepage at www.hccs.edu/online to see availability of online classes, certificates, and degree offerings.

Attendance Policy

Students are expected to attend all lecture classes and labs regularly. Students are also responsible for materials covered during their absences. Instructors may be willing to consult with students for make-up assignments, but it is the student's responsibility to contact the instructor. Class attendance is monitored daily. Although it is the student's responsibility to drop a course for nonattendance, the instructor has the authority to drop a student for excessive absences. A student may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab). For example:

- For a three credit-hour lecture class meeting three hours per week (48 hours of instruction), a student can be dropped after six hours of absence.
- For a four credit-hour lecture/lab course meeting six hours per week (96 hours of instruction), a student can be dropped after twelve hours of absence.

Departments and programs governed by accreditation or certification standards may have different attendance policies. Administrative drops are at the discretion of the instructor. Failure to withdraw officially can result in a grade of "F" in the course.

For medical issues or other problems affecting attendance, students should speak with their instructors and may also seek support from HCC Counselors and Ability Services Counselors.

NOTE: It is the responsibility of the student to withdraw officially from a course.

Religious Holy Day Absence

In accordance with state law, the College shall allow a student who is absent from class for the observance of a religious holy day to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under this section cannot be penalized for the absence, but the instructor may appropriately respond if the student fails to satisfactorily complete the assignment or examination with a reasonable amount of time. Faculty should encourage students to inform them at the beginning of the semester to prepare for absence in case of an assessments, assignments, etc. A student needing more information about this process may contact their instructor and may seek support from the Office of Institutional Equity, if needed.

Grading System

HCC uses the following standard grading system:

Grade	Grade Interpretation	Grade Points
A	Excellent (90-100)	4
B	Good (80-89)	3
C	Fair (70-79)	2
D	Passing (60-69), except in developmental courses.	1
F	Failing (59 and below)	0
FX	Failing due to non-attendance	0
IP	In Progress	0
W	Withdrawn	0
I	Incomplete	0
AUD	Audit	0

IP	In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.	0
COM	Completed. Given in non-credit and continuing education courses.	0

All grade points listed in the table above are per semester hour.

Note that some Health Sciences programs use a different grading scale, and that some variations in grading policy were made during the COVID-19 emergency.

Grade Point Average (GPA)

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of semester hours the course carries.

To compute a student's grade point average, divide the total grade points by the total number of semester hours attempted. The grades "IP," "W," "AUD," "COM," "Pass," "Fail," and "I" do not affect the student's GPA.

Incompletes

The grade of "I" (Incomplete) is conditional. A student receiving an "I" must arrange with the instructor to complete the course work within six months of the end of the incomplete term. After the deadline, the "I" becomes an "F." Upon completion of the course work, the grade will be entered as an "I" grade on the student transcript. All non-completes must be changed to grades prior to graduation.

Repetition of Courses

After the close of each semester, a student's enrollment history is reviewed, and courses taken more than once are marked as a repeat. If a student repeats a course in which a grade (A-F) has been received, the highest grade received is the permanent grade for the course and will be used in computing the grade point average. All grades earned in a given course will be entered on the transcript. Other colleges may compute the GPA differently than HCC and students are encouraged to consult their advisor or the institution of their choice with questions.

No Late Registration

It is the official policy of HCC that there is no late registration.

A student may register for a class if it has not met for the first time. A student *may not* register for a course if it has already met once. If it is believed that an extenuating circumstance exists, the student should refer to the Dean of Student Success or designee.

An example of an extenuating circumstance is a cancelled class. A cancelled class is beyond the control of a student, and is an issue created by the College. In the event of a cancelled class, it may be appropriate to make an exception to the late registration procedure.

Academic Progress Requirements

A student's academic progress will be evaluated for the first time after a minimum of nine attempted semester hours. A student's academic standing is determined at the end of the fall semester (December), spring semester (May) and summer semester (August).

To maintain satisfactory academic progress, a student is expected to maintain a minimum cumulative GPA of 2.0 based upon the aggregate number of hours attempted at Houston Community College.

Students who maintain a cumulative GPA of 2.0 or above are considered to be in good academic standing.

Students who do not maintain a minimum cumulative GPA of 2.0 will be placed on academic probation, continued academic probation or academic suspension as defined below. These three academic status levels alert students that action is required. Students are expected to establish contact with their counselor and/or college advising center for support and assistance with improving their academic standing.

Each academic status level is defined below with the required action by the student:

Academic Status Level	Definition	Action Required by Student
Good Standing	Cumulative GPA of 2.0 or above	None
Academic Probation	Cumulative GPA below 2.0	Can enroll in the following semester. Attend a SLIP session and have two follow-up counseling sessions during the semester to improve academic standing
Continued Academic Probation	Cumulative GPA below 2.0 and term GPA 2.0 or above	Continue to work with the counselor from a previous semester, as needed, to improve academic standing
Academic Suspension	Previous term status of Academic Probation or Continued Academic Probation and term GPA below 2.0	Required to attend a SLIP session. May be required to appeal their Suspension in order to enroll in the semester immediately after being placed on Suspension.

Additionally, students placed on academic probation or academic suspension should note the following:

- Students on Academic Probation can enroll in the semester immediately following their probation but are required to attend a SLIP session during the semester and have at least two individual follow-up sessions with their counselor.
- Students on academic suspension are required to attend a Successful Learning Intervention Program (SLIP) session at the college they attend prior to re-enrollment, and prior to meeting with their designated counselor.
- The student's counselor will stipulate conditions of enrollment including, but not limited to, maximum hours and/or specific courses.
- Students on Academic Suspension may be unable to enroll in classes for one semester.
- A student may appeal an Academic Suspension by completing the necessary paperwork obtained at the college's counseling center. For more information on appealing a suspension, students may contact their college's counseling center. See Counseling Contact Information at www.hccs.edu/support-services/counseling.

The following requirements also apply to the determination of academic progress:

- Students enrolled in multiple summer sessions will have their entire summer's work evaluated for determination of their academic status.
- Students in certain Health Sciences programs are required to maintain a grade of "C" in all courses in order to continue in the program. Students not meeting these standards may continue to enroll at HCC in other programs as long as they maintain minimum HCC requirements. Health

Sciences students should check their program's requirements by visiting www.hccs.edu/programs/areas-of-study/health-sciences.

- Students are responsible for knowing whether they have passed the minimum standards for continuation in college. Ineligible students who register will be subject to dismissal with forfeiture of all tuition and fees.

If a student has any questions, please contact an academic advisor on campus. For information on how to meet with an academic advisor, see www.hccs.edu/support-services/advising.

Dropping Courses

Students should make sure they are aware of penalties regarding financial aid, additional tuition costs, etc., before withdrawing from a course.

It is the responsibility of the student to officially drop or withdraw from a course. Failure to officially withdraw may result in the student receiving a grade of "F" in the course. A student may officially withdraw in any of the following ways:

- Drop online from the student's account. Login to a Student Account by visiting www.myeagle.hccs.edu and selecting "Student Sign-In."
- Send a letter requesting withdrawal to:

Registrar
Houston Community College
P. O. Box 667517
Houston, TX 77266-7517

The withdrawal will be effective the date of postmark.

- Fax a letter of withdrawal to 713-718-2111.

A student who officially withdraws from a course before the Official Date of Record will not receive a grade and the course will not appear on the student's permanent record. A student withdrawing from a course after this period and prior to the deadline designated in the HCC calendar will receive a grade of "W."

Limitation/Costs of Course Withdrawals

Under Texas Education Code Section 51.907, an institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education. This statute applies to students who enroll in a public institution of higher education as a first-time freshman in fall 2007 or later. Any course a student drops is counted toward the six-course limit if: 1) the student was able to drop the course without receiving a grade or incurring an academic penalty; 2) the student's transcript indicates or will indicate that the student was enrolled in the course; and 3) the student is not dropping the course in order to withdraw from the institution. High school students enrolled in HCC Dual Credit and Early College are waived from this requirement until they graduate from high school. All college-level courses dropped after the Official Day of Record are included in the six-course limit, unless the student demonstrates to an appropriate College Official that one of the following events occurred to the student during the semester or summer session:

- A severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course (see Medical Withdrawal/Compassionate Withdrawal Application Process below).

- The student’s responsibility for the care of a sick, injured, or needy person, if the provision of that care affects the student’s ability to satisfactorily complete the course.
- The death of a person who is considered to be a member of the student’s family or who is otherwise considered to have a sufficiently close relationship to the student that the person’s death is considered to be a showing of good cause.
- The active duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student’s family, and such active duty interferes with the student’s ability to satisfactorily complete the course.
- The change of the student’s work schedule that is beyond the control of the student and that affects the student’s ability to satisfactorily complete the course.
- Other personal or family reason that is considered catastrophic or beyond the control of the student and interferes with the student’s ability to satisfactorily complete the course (as determined by the College official; see also Medical Withdrawal/Compassionate Withdrawal Application Process below).

For questions regarding the six-drop course limit, students should contact the Office of Enrollment Services at their college.

HCC students affected by this statute that have attended or plan to attend another institution of higher education should become familiar with that institution’s policies on dropping courses.

Other laws affecting course drops are as follows:

Senate Bill 1782 (effective June 15, 2017)

- Allows students who have accrued at least fifty semester credit hours and stopped-out for 24 months, a one-time exemption from the six-drop and three-peat rules. For more information regarding these rules, see the “Course Withdrawals (6-drop rule)” and “Repeating Course (Three-Peat rule)” sections of www.hccs.edu/about-hcc/procedures/student-rights-policies-procedures.
- A Senate Bill 1782 qualifying student may drop one additional course, for a total of seven drops. If a student once again drops out for a 24-month period, the student is not granted an additional drop.
- Senate Bill 1782 qualifying students should contact the Enrollment Services Office at their college to provide documentation and obtain a waiver form.

Medical Withdrawal/Compassionate Withdrawal Application Process

The College will consider late withdrawal requests based on exceptional adverse life events - for medical or compassionate reasons - described and applying the definitions listed below.

“Medical Withdrawal Request” means a request to withdraw from college/courses because of an exceptional adverse life event related to physical or mental health of the student or someone for whom the student is the primary caretaker (i.e., power of attorney or medical power of attorney).

“Compassionate Withdrawal Request” means a request to withdraw from college/courses because of an exceptional adverse event not covered under a medical withdrawal (e.g., death of a family member, incarceration, crime victim, act of nature, legal issues).

“Late Withdrawal” means a withdrawal from class(es) after the withdrawal deadline for the current semester.

“Exceptional Adverse Life Events” means an unexpected and extraordinary event/circumstance that substantially impacts one’s life and/or ability to remain enrolled in school, as documented and determined by the applicable Dean of Student Success.

“Effective Date of Onset” means the date when the exceptional adverse life event began to impact academic work, as determined by the applicable Dean of Student Success when reviewing the documentation and timeline. Date of event must not exceed prior two years.

“Decision” means to approve or not approve the request to withdraw/refund from courses due to medical or compassionate reasons.

Procedures

Students must complete and submit a Medical or Compassionate Withdrawal Request form provided by the College (online or in-person), with supporting documentation (e.g., medical or legal documentation), to an HCC Ability Services Counselor in order to request to withdraw from course(s) due to an exceptional adverse life event. Compassionate and late withdrawal requests should be submitted to the Office of the Dean of Student Success. These requests will be considered and determined by the appropriate authority using standards that are fair and generous to the student.

Students can obtain information on the process and the form from the Office of Enrollment Services at their college and / or from their Ability Services Counselor.

Satisfactory Academic Progress Requirement for Veteran and Military Affiliated Students

The Department of Veterans Affairs requires that any student utilizing VA education benefits make satisfactory academic progress to remain eligible for such benefits.

Respective students on academic probation and suspension will be reported to the Department of Veterans Affairs. Please see the Requirements for Academic Progress section of this Handbook for more information.

Time Frame Component

A student receiving the Hazlewood Act exemption will be expected to complete his/her educational attainment objective or course of study within their first ninety semester hours.

Grades of “F,” “FX,” “I,” “NG,” or “W” repeated courses are counted in the aggregate total number of hours attempted. Students will not receive the exemption if the course has previously been passed, unless the program of study requires students to take the course more than twice in order to achieve a required grade.

Please see the Grading System section of this Handbook for grade definitions.

Repeating Courses for Veteran and Military-Affiliated Students

Students using VA educational or Hazlewood Act benefits may not retake a course in which a passing grade or a temporary grade of “I” is awarded.

It is ultimately the responsibility of the student to know which course(s) has/have been completed. Students may check their progress by logging into their student account and viewing their advisement report (iAAR).

The HCC VMASS District office is required to notify the VA of any course duplications, and appropriate changes will be made when a student has taken a class that has been deemed successfully completed.

Activated Reservists

An HCC student who is attending classes and is called to active duty during a semester may elect to do one of the following:

- Receive a refund for the tuition and fees paid for the semester from which the student withdraws;
- Receive an incomplete grade in all courses by designating “withdrawn” on the transcript; or
- Request the instructor to assign an appropriate final grade or credit if the student has satisfactorily completed a substantial amount of course work and demonstrated sufficient mastery of the course material.

The amount of the refund is contingent upon the course drop date in accordance with the Drop and Withdrawal Refund Schedule found at the Refunds and Credit Balances section of this Handbook. To drop/withdraw from courses for this reason, submit a VMASS Certification Request at www.hccs.edu/support-services/veteran-affairs/vmass-certification-request.

Satisfactory Academic Progress Requirements for Financial Aid Students

Financial aid students must meet the following Satisfactory Academic Progress (SAP) requirements set by the federal government:

- Must maintain a term GPA of 2.0 or higher;
- Must complete at least 67 percent of attempted courses for the academic year; and
- Must enroll in courses leading to an HCC degree or certificate.

Students who do not maintain the standards listed above will be ineligible to receive financial aid. Students should note that SAP Requirements to maintain financial aid are not the same as academic progress requirements (see Academic Progress Requirements section of this Handbook). A student may appeal a suspension of financial aid by submitting a written request to the college Financial Aid Office, online or in-person. For more information regarding the financial aid SAP requirement and appeal of suspension options is available in the college Financial Aid Offices and online at www.hccs.edu/applying-and-paying/financial-aid/satisfactory-academic-progress.

Progress Records

A student can check his/her grades at any point by logging into his/her Student Account. Login to a Student Account by visiting www.myeagle.hccs.edu and selecting “Student Sign-In.”

Grade Reports

Grades generally post one week after the last final exam for that particular session or semester.

Graduation

Prior to graduation, students must submit all official transcripts of credits transferred from other institutions to the Office of Admissions and Records. A candidate for any degree or certificate must meet the graduation requirements in the catalog for the year of initial enrollment, unless the student elects to graduate under the requirements of a more recent catalog. The candidate must indicate the catalog choice when applying for graduation. A student who does not maintain enrollment at HCC and has a gap in enrollment for a period of more than one calendar year is required to graduate under

the catalog requirements set by the student's year of readmission. Current and archived catalogs can be found at www.hccs.edu/programs/catalog.

To be considered as a candidate for an AA, AS, AAT, AAS degree or Certificate of Completion, students must meet with their advisor and get approval and then complete the application online in the MyEagle student center at www.myeagle.hccs.edu. This should be done at the time of registration for the student's final semester, or during registration for the spring semester if the student wants to participate in the May ceremony.

Students who are unable to complete their degree plan on file at HCC may transfer back up to 45 semester hours of equivalent courses from an accredited institution. These courses must be completed within three years of their last semester of enrollment at HCC. All other graduation requirements must be satisfied, including the requirement that 25 percent of a student's degree must be completed at HCC.

Students who want a printed diploma must check the diploma box on the application and provide a diploma mailing address. There is no charge for the diploma. Students may request their records be reviewed at the conclusion of their course work so the appropriate degree or certificate will be recorded on the student's transcript. Students can meet with their advisor to review their records.

If a student did not elect to receive a copy of his/her diploma, a copy may be requested from the Registrar. Students may email graduation@hccs.edu regarding their diploma or graduation status.

Graduation Honors

Graduation honors will be awarded to students pursuing an associate degree with superior cumulative GPAs. The following classifications of honors will be recognized on the student's transcript and diploma:

- Highest Honors - GPA 3.80 or above
- High Honors - GPA 3.60 to 3.79
- Honors - GPA 3.35 to 3.59

HCC will use the following guidelines to compute honors eligibility:

- The student must complete at least 25 percent of the degree at HCC; and
- The student must complete requirements for an AA, AS, AAT, or AAS degree (certificate graduates do not receive honors).

The grades in all HCC courses, including Developmental work, will be calculated and counted in the cumulative GPA. Developmental course grades are excluded from the degree GPA.

Courses taken through the preceding summer semester will be used in computing the GPA for the purposes of determining graduation honors for the fall ceremony and through the fall semester for the spring ceremony. The student must have completed 75 percent of the course work for the degree at that time.

Please see the Grading System section of this Handbook for more information on computing the student's GPA.

Participation in the Graduation Exercises

HCC holds two student graduation ceremonies each year, one in December for summer and fall graduates, and one in May for spring graduates. Candidates for degrees and certificates are encouraged to attend the graduation ceremonies. Students who complete course requirements in summer 2020 may participate in the fall 2020 ceremony.

Records and Transcripts

A transcript of college credits is an official copy of the student's permanent record bearing the HCC seal and the signature of the Registrar. Students may request an official transcript online, by phone, or by ordering and picking up in person at a specific campus location (see website for more information).

It is highly recommended that transcripts be sent electronically to colleges and universities to expedite processing. There is a charge for transcript processing. All admissions information must be on file and all holds cleared before a student's record will be released. A student should allow a week for delivery following the transcript request. Additional time should be allowed at the close of a semester. Students needing a transcript should allow one week after the end of a semester to ensure all grades have been entered for the term.

Students should request transcripts of work completed at another institution from that institution.

For more information on ordering official transcripts from HCC, including fees and campus pick up locations, please visit www.hccs.edu/resources-for/current-students/transcripts. Certain notations required by law are included on transcripts when applicable, such as student discipline information, in addition to grades.

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) of 1974 was established to protect the privacy rights of all students and applies to any educational facility receiving federal funds. FERPA prevents the release of certain information held within student records. HCC complies with the FERPA when collecting, maintaining, and releasing student records.

Release of Student Records/Information

FERPA affords students in "attendance" at Houston Community College (HCC) certain rights with respect to their education records. "Attendance" is defined by HCC as beginning on the first day of the term in which a student is enrolled. These student rights, which are described on the Board policies site at FJ(Local) and (Legal), include:

- The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. A student should submit to the Registrar a written request that identifies the record(s) the student wishes to inspect. The College Official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College Official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
- The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the College to amend a record should write the College Official responsible for the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. See policy FJ(LOCAL) and (LEGAL) available at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

FERPA also designates certain information related to a student as “Directory Information.” FERPA gives the College the right to disclose such information to anyone inquiring without having to ask a student for permission, unless the student specifically requests in writing that all such information not be made public without written consent (see location of HCC Confidentiality Form below), except by the National Student Clearinghouse, to loan guarantors.

Houston Community College has designated the following as “Student Directory Information:”

- Student’s name;
- Address and telephone number;
- Date of birth;
- Major field of study;
- Enrollment status (full/part-time);
- Classification;
- Dates of attendance at HCC;
- Number of semester hours completed and in progress;
- Student classification;
- Degrees earned and dates awarded; and
- Most recent previous educational institution attended.

If a student does not want directory information released, the student must complete a confidentiality request form and submit to the Enrollment Services Office.

The Confidentiality Form is located at:

www.hccs.edu/media/houston-community-college/district/pdf/confidentiality-form.pdf.

Release of any additional information pertaining to student records must be authorized by the student (i.e., grades, transcripts). If a student wishes to authorize HCC to release information to another person, the student must complete an Authorization to Release Information form and submit with proper identification to the Enrollment Services Office at the College. The form will specify duration and information allowed to be released.

The Authorization to Release information form is located at:

www.hccs.edu/media/houston-community-college/district/pdf/ferpa/FERPA-Release-Form.pdf.

If a student is not able to sign the Authorization to Release Information form in person at the Enrollment Services Office, the student are asked to complete the FERPA Notary Form. The FERPA Notary Form must be notarized and is located at:

www.hccs.edu/media/houston-community-college/district/pdf/ferpa/FERPA-Notary-Form.pdf.

A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. For more information, visit www.studentprivacy.ed.gov or write to the office that administers FERPA at the following address:

U.S. Department of Education
Student Privacy Policy Office
400 Maryland Avenue, SW
Washington, DC 20202-8520
FERPA.Complaints@ed.gov

ACADEMIC SUPPORT

Freshman Success Courses (FSC)

All students who attend Houston Community College for the first time and have twelve college level semester credit hours (SCH) or fewer must enroll in a Freshman Success Course (FSC) their first semester. Houston Community College offers two forms of this course. The Introduction to Health Professions (HPRS 1201) course is designed for students pursuing a degree in Health Sciences, and the Learning Frameworks (EDUC 1300) course is designed for students pursuing all other majors. This course is designed to provide career assessment and career exploration opportunities to assist students in deciding on a career path. Additionally, students study research and theory in the psychology of learning, cognition, and motivation—factors that impact learning and the application of learning strategies.

For more information, consult the Class Schedule at www.hccs.edu/continuing-education/current-schedule.

Service Learning

The Service Learning program at HCC provides civic engagement opportunities for students enrolled in courses with a community service component. However, these opportunities are also available to any student desiring to volunteer his/her time to assist in community outreach efforts. The program advocates a balanced service learning approach, meeting the needs of the community while maintaining an academically rigorous campus environment.

A course designated as having a service-learning component is one that provides students with an opportunity to apply what is learned in the classroom to a practical experience in the community. Often partnering with non-profit organizations and community service sections of corporations, service learning enriches the educational experience for students by unveiling the relevancy of coursework to real life scenarios in the community. Service learning improves retention rates of students, increases their sense of civic responsibility, and deepens their understanding of community issues. Service learning also allows students to explore roles and activities that will help them develop valuable knowledge and skills and explore possible career options. For additional information regarding Service Learning opportunities, visit www.hccs.edu/departments/division-of-instructional-services/service-learning.

Supplemental Instruction

Supplemental Instruction (SI) is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided to all HCC students, at no cost, by students who have already succeeded in completion of the specified course, and students who attend SI sessions earn higher grades than those who do not attend. For additional information regarding Supplemental Instruction opportunities, visit www.hccs.edu/resources-for/current-students/supplemental-instruction.

Tutoring in our Academic Success Centers and/or Online

One important key to success in college is learning to use available resources. HCC provides many tutoring opportunities for students in most all areas of study. Whether a student prefers real-time, face-to-face interaction, or the privacy and convenience of working with an online or virtual tutor, HCC provides multiple options for support. In addition, HCC provides access to its physical and virtual Academic Success Centers staffed with experts ready to assist students with writing assignments, math problems, and most subjects.

General information: www.hccs.edu/tutoring

Tutoring schedules: www.hccs.edu/findatutor

Online tutoring: www.hccs.upswing.io

Call 713-718-8184 to schedule an appointment to virtually meet with a tutor.

ADULT EDUCATION PROGRAM

Additionally, HCC offers Adult Education programs described below and www.hccs.edu/changemylife.

Adult Education & Literacy Programs

Adult Education courses are grant supported through the support of the Texas Workforce Commission. Adult Education students can choose from the following three areas below:

- **HSE (High School Equivalency Student)**
Students seeking a certificate of High School Equivalency (GED, Hi-SET, TASC).
A student who wants to prepare to take one of the three Texas-approved high school equivalency exams. These exams include the GED (General Educational Development), the TASC (Test Assessing Secondary Completion), or the Hi-SET (High School Equivalency Test). Upon successful completion of all parts of one of these three accepted exams, the student will receive the certificate of high school equivalency issued by Texas Education Agency.
- **ESOL (English for Speakers of Other Languages)**
Students wanting to speak, read, and write English, and whose first language is not English. A learner who wants to achieve competence in comprehending, speaking, reading, and writing English. ESOL students can continue to study for their High School Equivalency and/or transition to postsecondary education and training or employment.
- **Career4U Academy**
The Adult Education & Literacy program offers five Career4U Academies. These academies allow students to attend college without a TSI test and earn a certificate in the sectors of Healthcare, Information Technology, Business, Construction Trades, and Transportation. This student will establish a clear path toward his/her educational and employment goals by studying basic skills, English as a Second Language, and/or high school equivalency, along with a post-secondary Workforce Certificate. Pay a \$20 processing fee, and Adult Education will sponsor the first two classes, and financial aid pays for the completion of the program. For information about Adult Education call the HCC AEL Hotline at 713-718-5381 or visit www.hccs.edu/changemylife.

Workforce and Career Training Program (WCTP)

Workforce and Career Training Program (WCTP) is a collaborative effort by HCC and a number of high-profile nonprofit organizations to assist underemployed or unemployed individuals. All WCTP training integrates career training with Adult Education classes. Financial aid is regularly available. All WCTP programs also can be configured to accommodate students whose second language is English. To find out more, email hcc.wctp@hccs.edu, or call 713-718-2779, or visit www.hccs.edu/programs/adult-education/workforce-career-training.

IET/EL Civics offerings provide advanced English Language Learners with tuition assistance for concurrently enrolling in ESOL courses that are integrated with Level One Certificate career programs.

Ability to Benefit Programs

The Adult Education & Literacy office has arrangements that will allow students who do not have a high school diploma or Certificate of High School Equivalency (TxCHSE) certificate to enroll at HCC and receive federal student aid including Pell Grants. Students need to demonstrate that they have the “ability to benefit” from postsecondary education and training and can meet certain additional requirements. More information is available at www.hccs.edu/programs/adult-education/ability-to-benefit-pell-grant-option.

Adult High School

Adult High School (AHS) is a credit recovery program for students seeking credit recovery and/or original credit toward their high school graduation requirements (students recovering/completing credit receive a high school diploma). Current high school students will need a referral from their high school counselor before registering for any AHS class. For more information, including AHS locations and courses, call 713-718-7611 or visit www.hccs.edu/programs/adult-education/adult-high-school.

STUDENT SERVICES

The mission of the Student Services Division is to foster a learning environment that supports students in their educational journeys. This includes engaging students in innovative co-curricular programs and providing exceptional support services to promote their intellectual and social development.

Student Services Contact Center

The Student Services Contact Center provides information and registration assistance to future, current and returning Houston Community College students. Students may email inquiries online to www.student.info@hccs.edu, or chat live via our homepage with a Student Information Representative regarding registration, admissions, academic, and student services. Information and answers to frequently asked questions can be found 24 hours a day, seven days a week through our Ask HCC Knowledgebase. More information regarding the Student Services Contact Center can be found at www.hccs.edu/support-services or by calling 713-718-2000 (select Option #1) from 8 a.m. - 7 p.m., Monday - Friday excluding holidays and closures for professional development.

Student Orientation

New students entering as freshman or transferring to HCC with less than 12 semester credit hours are required to attend New Student Orientation (NSO). NSO sessions are offered at various campuses and times to meet students' needs. For more information about NSO, please go to the "Student Sign-In" section of www.myeagle.hccs.edu, login to the student account, and view Student Center.

Before signing-up for an NSO session, students must complete the following:

- Provide proof of bacterial meningitis vaccination to the Admissions & Records Office. For more information on requirements, exemptions, and required documentation, visit www.hccs.edu/applying-and-paying/meningitis.
- Submit official high school transcripts to Admissions & Records Office. For information on how to submit transcripts to HCC, visit www.hccs.edu/resources-for/current-students/transcripts.
- Submit SAT and/or ACT test scores to Admissions to determine placement or waivers.
- Complete the Texas Success Initiative (TSI) Assessment to determine college readiness, unless the student qualifies for an exemption. A list of TSI exemptions is available at www.hccs.edu/applying-and-paying/tsia-exemptions. If a student is not exempt from the TSI, that student must first take the Pre-Assessment Activity (PAA) test. For more information on the TSI and PAA, visit www.hccs.edu/departments/division-of-instructional-services/hcc-texas-success-initiative-assessment.
- Complete the Career Assessment through the Career Coach website at www.hccs.emsicc.com. The Career Assessment is a sixty-question assessment to give students insight of their potential academic pathways and career options.

During Orientation students will:

- Learn about the academic programs, academic and student support resources, requirements, and student life;
- Become familiar with financial services and payment;
- Receive advising and a recommended course schedule for their first semester; and
- Enroll in courses.

After orientation, students need to:

- Get an HCC Student ID (see Student Identification Card section below); and
- Purchase textbooks (see Bookstore section of this Handbook).

Students should note that certain Health Sciences programs and other separately accredited programs may have separate orientation sessions.

For International student orientation information, please see the International Services and Programs: Check-in and Orientation for International Students section of this Handbook or visit www.hccs.edu/support-services/international-students/orientation.

For potential and returning students of the Adult Education program, Orientation, and Registration must be completed at www.hccs.edu/programs/adult-education/take-a-txchse-or-esl-class/orientation-registration-schedule. Call 713-718-5381 for more information.

Student Identification Card

Student identification (ID) cards are required once a student has registered and paid for classes. The card will be needed for library and computer lab usage, admission to college activities, and voting in campus elections. ID cards are non-transferable and are to be held only by the students to whom they were issued. Students may obtain their HCC ID card by visiting the West Loop Campus on Tuesday, Wednesday, or Thursday from 3 p.m. to 6 p.m. Student IDs may also be obtained at any of the other campuses operating a photo ID station. Check with the Campus Manager for the location and hours of campus photo ID stations. Students are always required to be in possession of their ID card. All ID cards are the property of HCC and must be shown when requested by a representative of HCC. If students lose their ID cards, they should report it to the HCC Police Department by calling 713-718-8888 as soon as it is discovered as missing. To obtain a replacement ID card, students must initiate the process at the college campus they attend. A nominal fee will be charged for the replacement of lost ID cards. For information on how and where to get a student ID, visit www.hccs.edu/support-services/get-your-student-id.

Advising Services

Advisors provide one-on-one advising support for students, assist with pathway planning, and provide information about institutional and external resources available to students.

HCC requires all new students to enroll in a Student Success Course the first semester. The course assists students with identifying a program or area of study and plan their degree path. Once a student has selected a program of study (major), the student is assigned to an Academic Advisor based on his/her declared program of study. If a student plans to transfer to a four-year college or university, it is important to identify an institution(s) to ensure the student is completing the appropriate requirements to transfer. All students are assigned an Academic Advisor, excluding transient students.

Please visit www.hccs.edu/support-services/advising for more information regarding advising services and contacting an advisor.

International students can locate their DSO/International Student Advisor by visiting: www.hccs.edu/support-services/international-students/international-advisors.

Counseling Services

The mission of the HCC Counseling Department is to provide holistic support for students pursuing their educational goals. In order to accomplish this mission, HCC will provide a full range of

professional services, including personal and mental health counseling, substance abuse counseling, ADA and Title IX accommodations, career counseling, academic skills enhancement, outreach programming, consultation, and crisis intervention. Counselors are available by appointment during the following hours:

Monday-Thursday 8 a.m. - 6:30 p.m.

Friday 8 a.m. - 5 p.m.

Walk-in-hours vary across campuses.

To see a list of HCC counselors and their contact information, please visit

www.hccs.edu/support-services/counseling.

Information regarding ADA counselors is located in the Ability Support Services: ADA Counselors section of this Handbook below.

Information regarding Title IX contacts is located in the Equal Educational Opportunity Statement section of this Handbook.

Ability Support Services

Services for Students with a Qualified Disability

Houston Community College (HCC) views equal access as a shared responsibility between HCC and the student. HCC recognizes students with disabilities as a valued element of diversity and ensures that no academically qualified student with a disability will be denied access to or participation in the services, programs, and activities of HCC. HCC makes its campuses and programs accessible to individuals with disabilities.

ADA Accommodation Process for HCC Students

The Americans with Disabilities Act, as amended, prohibits discrimination against individuals with disabilities and requires postsecondary institutions to provide accommodations when a student discloses a disability. In college, students with disabilities are covered under Section 504 of the Rehabilitation Act, which also prohibits discrimination against individuals with disabilities, and under the Americans with Disabilities Act. HCC's obligations under these laws are different than what students will have experienced during high school. HCC's objective of reasonable accommodations in college is to accommodate the functional limitations of the student while maintaining the integrity of college courses and programs. Colleges provide reasonable accommodations, and not modifications, to courses in accordance with federal law.

Student's Responsibility

Obtaining reasonable accommodations is a process that is voluntary on behalf of the student and is interactive. It is the student's responsibility to self-identify, disclose his/her disability or condition to the Ability Services Office, provide the appropriate documentation from a qualified professional, usually a physician or clinician, with a diagnosis of his/her disability(s), and request reasonable accommodations. The Ability Services Office, in communication with the student and instructor if necessary, will issue a letter detailing the student's approved reasonable accommodations. Once the ADA accommodation letter is received by the student, the student should contact his/her instructors at the start of the semester and present the letter to them. Accommodation letters are not retroactively applied. It is the student's responsibility to communicate his/her questions or concerns associated with his/her accommodation letter to the Ability Services Office in a timely manner. Due to high demands for services, HCC strongly encourages students to request accommodations before the start of each academic term. Failure

to provide sufficient documentation or timely request accommodations may delay the delivery of accommodations. Returning students should contact the Ability Services Office at the beginning of each semester to receive their reasonable accommodation letters. Additional documentation may be requested if students request to change their existing accommodations.

Online Students and ADA Accommodations

Students enrolled in all online classes may utilize the same or comparable support services that are afforded to all HCC students. Students only enrolled in online classes may request their accommodation in the same manner as students taking classes on the college's premises. Students can schedule the required appointments with any of the Ability Services Offices. Although we recommend face-to-face appointments, these appointments may be done via telephone, video conference, or in another format that suits both the Ability Services Office and the student. Once the student receives the accommodation letter, the student must still sign the letter and then present it to the online instructor for the courses in which the student desires accommodation—normally via e-mail. Students are urged to follow-up with the instructor regarding the accommodation(s) and determine whether technical support will be needed to implement the accommodation(s). If the student or instructor needs assistance with this process, they may contact the Ability Services Office that provided the accommodation letter.

Dual Credit Students and ADA Accommodations

Students enrolled in dual credit courses may utilize the same or comparable support services that are afforded to all HCC students. Students are required to self-disclose with the appropriate HCC Ability Services. Coordination of required accommodations will be afforded through a collaborative effort between HCC and the student's governing high school institution, such as his/her school district. Dual credit students may request accommodations in the same manner as other HCC students. Students can schedule the required appointments with the Ability Services Office they are referred to by their high school. Although we recommend face-to-face appointments, these appointments may be done via telephone, video conference, or in another format that suits both the Ability Services Office and the student. Once the student receives the accommodation letter, the student must sign the letter and present it to the instructor—whether in person or by e-mail. Students are urged to follow-up with the instructor regarding the accommodation(s) and determine whether technical support will be needed to implement the accommodation(s). If the student or instructor needs assistance with this process, they may contact the Ability Services Office that provided the accommodation letter.

Examples of Reasonable Accommodations

Examples of accommodations students have received include, but are not limited to, extra time for testing, use of a tape recorder in classroom, Sign Language interpretation or CART services, preferential seating in the classroom, and alternate textbooks.

ADA Counselors

The point of contact for the HCC students with a qualified disability seeking accommodations under the ADA is the Ability Services Office. The Ability Services Offices are located at each of the six colleges. For the list of ADA counselors and their contact information, visit

www.hccs.edu/support-services/ability-services.

Students who are only enrolled in online classes can contact any of the ADA counselors to request ADA accommodations.

Grievance and Appeal Process

Reports of discrimination based on disability may be directed to the ADA/Section 504 coordinator. HCC designates the following person to coordinate its efforts to comply with Title II of the Americans with Disabilities Act of 1990, as amended, which incorporates and expands the requirements of Section 504 of the Rehabilitation Act of 1973, as amended:

David Cross, Director EEO/Compliance, Title IX Coordinator/Section 504 Coordinator
Office of Institutional Equity
3100 Main, Suite 702
Houston, TX 77002
713-718-8271 or institutional.equity@hccs.edu

More information is also available at the Office of Institutional Equity (OIE) website:
www.hccs.edu/departments/institutional-equity.

A student who is dissatisfied with the outcome of the investigation may appeal through the applicable grievance policy beginning at the appropriate level.

A student also has the right to file a complaint with the U.S. Department of Education, Office for Civil Rights.

Testing

The Testing Center is responsible for the administration of various assessment tests and providing accommodations to those who qualify. Assessment tests are given to incoming and current students for the purpose of determining course placement. Testing schedules will vary, and not all tests are available at each college. For a list of testing center locations and hours of operation visit www.hccs.edu/resources-for/current-students/testing-services.

Special accommodations at testing centers are available for those who qualify. HCC students with a qualified disability seeking accommodations under the Americans with Disabilities Act (ADA) should contact one of the Ability Services Offices located at each of our six colleges. These counselors can give students information about testing accommodations. For the list of counselors and their contact information visit www.hccs.edu/support-services/ability-services.

Child Care, Minors, and Relatives on Campus

HCC's Central College normally offers childcare through a private vendor at a discounted rate for all HCC full- and part-time students and staff at the YMCA at HCC Child Development Lab School. The center typically serves children six weeks to five years of age, Monday thru Friday, 7 a.m. - 5:30 p.m. The Lab School's staff are not supervised by HCC but are expected to follow the guidelines of developmentally appropriate practices and state licensing.

For more information, call 713-718-5437 for enrollment information.

The YMCA also runs a drop-in childcare center during limited hours for the children of students at HCC's Southeast College. For more information on the YMCA, please see the Houston Community College section at of www.ymcahouston.org/programs/child-care/early-care/locations.

Childcare assistance is also available through Workforce Solutions. For more information on eligibility criteria, visit www.wrksolutions.com/for-individuals/financial-aid/financial-aid-for-child-care.

Otherwise, as stated in Board Policy GDA(LOCAL), minors and relatives requiring special care shall not be permitted on College property unless they are directly supervised by a parent, legal guardian, or responsible adult. Minors and relatives of College employees requiring special care shall not be allowed in college work areas. Minors and relatives of enrolled students requiring special care shall not be permitted in classrooms unless they are invited by the classroom instructor for instructional purposes.

Relatives requiring special care shall mean any person connected with another by blood or affinity that requires continuous health or medical-related assistance due to a chronic physical, developmental, behavioral, or emotional condition.

The parent, legal guardian, or responsible adult must be present at all times whenever the minor or relative is on College property. These requirements shall not apply to minors enrolled in courses or to minors participating in College-sponsored events or activities.

The College shall not be responsible for the care and supervision of minors or relatives of employees or enrolled students and shall not be liable for any injury or harm to minors or relatives that result from the negligence of care by the responsible party.

Alumni Association

The HCC Alumni Association is open to all graduates of HCC certificate and degree programs, former and current students who have successfully completed at least twelve hours at Houston Community College. The mission of the association is to promote meaningful engagement and continuing relationships between HCC and its alumni through programming and membership. The HCC Alumni Association strives to support, serve, inform, and involve alumni of the College, ensuring they have a lifetime connection to HCC and its mission.

For additional information, visit www.hccs.edu/alumni.

HCC LIBRARIES AND LEARNING RESOURCES

HCC Libraries are welcoming spaces to study and connect to resources and learning. Libraries are normally open seven days a week, subject to special circumstances such as the COVID-19 Emergency, and are here to help students succeed. The HCC library system consists of nine libraries and six electronic resource centers (ERCs). Students have access to more than 580,000 electronic, print, and multi-media resources. The catalog is updated frequently and provides easy access for navigating library resources. Eagle Library Search provides access to the HCC online catalog and more than 100 of the HCC licensed databases in a single search. HCC's online library catalog, Eagle Library Search and databases are accessible on and off campus. HCC librarians guide students to the resources they need through reference, course-related library, and webinars. For more information regarding all of HCC's Library resources, services and locations, please visit www.library.hccs.edu.

More Than Books and Databases

HCC Libraries provides access to computers, printing, photocopying, scanning, DVDs, streaming video, Chromebooks, study rooms, 3D printing, and one-button studio access in certain locations. Assistive technology includes laptops with ADA software installed, TOPAZ video magnifiers, purple phones, and more. More information regarding these resources is available at www.library.hccs.edu/accessibility.

Logging into Databases and Library Account

HCC licensed databases can be accessed anywhere using a student's HCC ID ("W" number) and the same password used to access a student's HCC email, student account, and computers. Library accounts are used to request items from any HCC library and renew items. To login to a student's library account, a student should use his/her first name and last name, leaving a space between. A student's password will be his/her library barcode number from his/her student ID card. For more information, go to www.library.hccs.edu/howdoi.

Checking Out Materials

A student ID card is a library card. Library material may be checked out for three weeks and renewed twice. Students can renew twice by telephone or the library website.

Overdue Library Materials

The card inside books shows when materials are to be returned. If a student fails to return materials, a "hold" status is reported and reflected on their student record(s). A hold will affect a student's ability to register for additional courses or obtain a transcript. Students will be blocked from further borrowing until the materials due are returned to the library. Lost, damaged, and stolen items are the responsibility of the borrower.

Materials from Other Libraries

In the event the HCC Libraries do not own a particular item student need for their research, students, faculty, and staff have full privileges to the TexShare Card Program and to the interlibrary loan program which expands access to the collections of all participating libraries. Students will be subject to the loan rules of each individual institution—both as to the number of items they may check out and how long they may keep them out. Students will be responsible for any overdue fines or lost book fees that a particular library may charge.

BOOKSTORE

Students may purchase textbooks, study aids, and a wide range of novelty items and apparel at the college bookstore. Students are encouraged to purchase books prior to the first day of class and can locate their course materials online at www.hccs.bncollege.com. Students should bring a copy of their class schedule to ensure that they are purchasing the correct texts. The bookstore will issue full refunds for textbooks during the first week of each term, provided the textbook is in original condition as when purchased and the original receipt is presented with request. For more information, visit www.hccs.bncollege.com. Students may also purchase their required texts at other retailers.

For more information regarding HCC's policies regarding textbooks, please see Board Policies EDA(LEGAL) and EDA(LOCAL) located at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-e.

VETERAN SERVICES

Veteran & Military-Affiliated Students

Veteran and/or Military-Affiliated Students who plan to use VA/GI Bill and/or State of Texas Hazlewood Act educational benefits must follow the steps outlined in the applicable HCC enrollment checklist described elsewhere in this Handbook. Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

Residency & Tuition / Veteran & Military-Affiliated Students

Military personnel, as defined by Texas Education Code Section 54.241, their spouses and dependent children may be entitled to pay tuition and fees at an institution of higher education at the rates provided for Texas residents in certain circumstances and regardless of the length of time the person or persons has/have resided in the state. For more information on Exemptions and Waivers, visit www.hccs.edu/resources-for/current-students/student-financial-services/waivers-and-exemptions.

Veteran and/or Military-Affiliated students may be required to file a “Letter of Intent” with the institution to establish residency and reside in Texas while enrolled at the respective institution. In such cases, the “Letter of Intent/Non-Resident Waiver” form should be submitted to the HCC District Office of Veteran & Military-Affiliated Student Success (VMASS) prior to the start of the enrollment term, but no later than the College’s Census Date (refer to HCC Academic Calendar for respective date(s)). Additional documentation that may be required includes, but is not limited to: Military Identification Card, Official Military Orders, DD Form-214, or other official substantiating documentation.

For requirements on resident tuition, Military personnel, Veterans and/or Military-Affiliated students should check with the HCC VMASS District Office and refer to the applicable statutes found in the Texas Education Code at www.statutes.capitol.texas.gov and Texas Higher Education Coordinating Board Rules at www.theccb.state.tx.us.

The HCC VMASS District Office is located at 3220A Main Street and can be contacted by phone at 713-718-8522.

Applying for Education Benefits / Veteran & Military-Affiliated Students

Students applying for Federal VA education benefits should submit the following documents to the HCC VMASS District office:

1. Complete the appropriate application for Educational Benefits to obtain the appropriate Certificate of Eligibility (COE) and submit a copy of it.

Application for VA Education Benefits (VA Form 22-1990)

www.va.gov/education/apply-for-education-benefits/application/1990/introduction

Application for VA Education Benefits under the National Call to Service Program (VA Form 22-1990N)

www.va.gov/education/apply-for-education-benefits/application/1990N/introduction

Application for Family Member to Use Transferred Benefits (VA Form 22-1990E)

www.vets.gov/education/apply-for-education-benefits/application/1990e/introduction

Dependents' Application for VA Education Benefits (VA Form 22-5490)

www.va.gov/education/apply-for-education-benefits/application/5490/introduction

Dependents' Request for Change of Program or Place of Training (VA Form 22-5495)

www.va.gov/education/apply-for-education-benefits/application/5495/introduction

Request for Change of Program or Place of Training (VA Form 22-1995)

www.va.gov/education/apply-for-education-benefits/application/1995/introduction

Disabled Veterans Application for Vocational Rehabilitation (VA Form 28-1900)

www.ebenefits.va.gov/ebenefits/about/feature?feature=vocational-rehabilitation-and-employment

2. Submit the DD-214 member 4, 2, or 7. DD-214 member 1 is not acceptable.
3. Submit official transcripts from all schools attended, including military technical schools and/or non-accredited schools:

To request military transcripts for Army, Navy, Marines, and Coast Guard:

www.jst.doded.mil

To request Community College of the Air Force transcripts:

www.airuniversity.af.edu

The HCC VMASS District Office is located at 3220A Main Street and can be contacted by phone at 713-718-8522.

Hazlewood Act Eligibility & Required Documentation / Veteran & Military-Affiliated Students

The Hazlewood Act is a State of Texas benefit that provides qualified Veterans, spouses, and/or dependent children with an education benefit of up to 150 hours of tuition exemption, including most fees, at public institutions of higher education in Texas. This does NOT include living expenses, books, or supply fees.

For more information, please see www.tvc.texas.gov/education/hazlewood-act.

To be eligible, a Veteran must:

- At the time of entry into active duty in the U.S. Armed Forces, have designated Texas as Home of Record; or entered the service in Texas; or was a Texas resident;
- Have received an honorable discharge or separation or a general discharge under honorable conditions as indicated on the Veteran's Certificate of Release or Discharge from Active Duty (DD Form 214);
- Served at least 181 days of active duty service (excluding training);
- Currently reside in Texas;
- Have no federal Veteran's education benefits, or have no federal Veterans education benefits dedicated to the payment of tuition and fees only (such as Chapter 33 or 31, for the term or semester enrolled that do not exceed the value of Hazlewood benefits);
- Not be in default on a student loan made or guaranteed by the State of Texas;
- Enroll in classes for which the College receives tax support (i.e., a course that does not depend solely on student tuition and fees to cover its cost), unless the College's governing board has ruled to let Veterans receive the benefit while taking non-funded courses; and

- Meet the GPA requirement of the institution’s satisfactory academic progress policy in a degree or certificate program as determined by the institution’s financial aid policy and, as an undergraduate student, not be considered to have attempted an excessive amount of credit hours.

Required Hazlewood Documents for Veterans

To comply with the requirements of the Texas Veterans Commission, during or before registration, Veterans or qualifying dependents must present the following documents to the HCC VMASS District office:

- The member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of educational benefits.
- Provide proof of eligibility or ineligibility for Chapter 33, from VA office in Muskogee, OK, if the Veteran served after 09/11 and separation. In the event the Veteran is eligible for chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Veterans may request a copy of their benefits eligibility letter by submitting a request through the VA’s Ask a Question website at www.benefits.va.gov/gibill.
- A completed formal application for Hazlewood Act benefits. Applications are available at the HCC VMASS District office or a student may also download the application from the Texas Veterans Commission website at www.tvc.texas.gov/education/hazlewood-act.
- Veterans must also provide a copy of their Hazlewood Online Database Report available at www.hazlewood.tvc.texas.gov/students.

NOTE: Veterans may use the Hazlewood Exemption in conjunction with other VA education benefits and Pell Grant, if eligible. However, compliance with the “default loan” clause will be verified by the school.

For additional support and/or information, please contact VMASS by phone at 713-718-8522, on the website at www.hccs.edu/support-services/veteran-affairs, or visit the District Office at 3220A Main Street.

Spouses and/or Children Required Hazlewood Documents

The military member’s 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

A letter from the Department of Veterans Affairs Office stating the parent or spouse died as result of service-related injuries or illness, is missing in action, or is considered totally disabled for purposes of employability as a service-related injury or illness.

Provide proof of eligibility or ineligibility for Chapter 33 from the VA office in Muskogee, OK, if the Veteran served after 09/11. In the event the Veteran is eligible for Chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Please request an education benefits letter by calling 1-888-442-4551.

A completed formal application for Hazlewood Act benefits. Applications are available at the Veteran Services department. Applications are also available at the Texas Veterans Commission website at www.tvc.texas.gov/education/hazlewood-act.

Students must provide a copy of their Hazlewood Online Database Report available at www.hazlewood.tvc.texas.gov/students.

Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

Transferability of Benefits (Legacy) Documents

Eligible Veterans may assign unused hours to a child under certain conditions. Applications are available at the Veteran Services department and are also available at the Texas Veterans Commission website at www.tvc.texas.gov/education/hazlewood-act.

- The following documents are required:
 - All transcripts from any previously attended institutions.
 - Copy of applicable Hazlewood Online Database Report available at www.hazlewood.tvc.texas.gov/students.
- Copies of birth certificate, marriage certificates, or tax returns may be requested.

NOTE: The Veteran's member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

Transfer / Veteran & Military-Affiliated Students

Transfer students should submit all academic transcripts from both accredited and non-accredited schools (to include military technical school credits/transcripts).

All academic transcripts (from both accredited and/or non-accredited schools) should be received and evaluated by HCC prior to selecting courses (when possible).

Further information is available at VMASS Resource Centers on campus, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

Priority Enrollment / Veteran & Military-Affiliated Students

Houston Community College offers priority registration to Veteran & Military-Affiliated students prior to the general student population. Students should refer to the HCC Academic Calendar at www.hccs.edu/student-experience/events-calendar to find the appropriate Priority Registration date(s).

Veteran & Military-Affiliated students choosing to exercise "Priority Enrollment" must provide appropriate documentation to HCC VMASS District office to ensure the respective student is identified within the HCC student information system prior to the start of each term.

Further information is available at VMASS Resource Centers on campus, at the District Office at 3220A Main Street, on the website at www.hccs.edu/support-services/veteran-affairs, or by phone at 713-718-8522.

INTERNATIONAL SERVICES AND PROGRAMS (ISP)

Contacting International Student Services and Programs

Individuals seeking to enroll at HCC as F-1 students should contact International Services and Programs at 713-718-8521, or biss.international@hccs.edu, or visit the office at 3200 Main Street, Houston, Texas 77002 (street level of the parking garage) during normal business hours, Monday-Friday, 8 a.m. to 5 p.m. Prospective students may also learn more at www.hccs.edu/international.

F-1 International Students

Houston Community College (HCC) considers students holding a non-immigrant visa to be an international student. Prospective students maintaining any other type of visa status, except F-2 and B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should contact for the Office of International Services and Programs for admission instructions and meet the published application deadline.

International students who want to study in the U.S. with an F-1 status must obtain a Student and Exchange Visitor Information System (SEVIS) Certificate of Eligibility, also referred to as a SEVIS Form I-20, from HCC. HCC has been approved by the U.S. Department of Homeland Security (DHS) to issue SEVIS Form I-20s required to obtain F-1 student status. The individual must then use the SEVIS Form I-20 to apply for an F-1 student visa (if outside the U.S.) or a change of non-immigrant classification to F-1 (if inside the U.S.). U.S. federal regulations require all applicants to provide certain documentation and information to the college issuing the SEVIS Form I-20 before it can be issued to a student. To apply for a SEVIS Form I-20, please refer to the “International Students” section of the HCC website (see link below) and follow the outlined application guidelines.

An international student under the age of eighteen who wishes to gain admission to HCC must provide documentation proving that he/she has achieved the equivalency of a U.S. high school diploma in his/her country by completing a transcript evaluation with an approved evaluation agency. F-1 students must maintain full-time status, which is defined as being enrolled in a minimum of twelve semester credit hours for the spring and fall semesters or a minimum of nine semester credit hours for the summer term, provided in that case that summer is the initial semester of enrollment at HCC.

International Student Advisors/Designated School Officials (ISA/DSO) report all changes in enrollment status pertaining to F-1 internationals (both students and alumni) to DHS as required by U.S. federal law.

F-1 international students must adhere to the U.S. federal regulations governing their nonimmigrant status while studying in the U.S. Non-compliance could jeopardize an F-1 international student’s ability to remain in the U.S and complete his/her studies at HCC. Students with questions may schedule an appointment with International Services and Programs (ISP) to discuss their options.

For more information, see www.hccs.edu/international.

Full-Time Enrollment Requirements for International Students

In order to maintain their visa status students must comply with requirements set by HCC and/or the federal government. Effective Fall 2017, F-1 international students must earn letter grades (A, B, C, D or F). A grade of a “W” (withdrawn) or “FX” (failing due to non-attendance) will not count towards the full-time enrollment requirement. “W” or “FX” is not considered a valid letter grade and demonstrates the student is not maintaining F-1 immigration status.

F-1 students must maintain at least twelve credit hours during the fall and spring semesters (nine credit hours during the summer, provided this is their first semester of attendance at HCC). In a manner consistent with federal requirements, international students holding an F-1 visa are limited to no more than the equivalent of one class or three credit hours of distance education (online class) per semester that will count towards the full-time status.

Concurrent Enrollment for F-1 International Students

An F-1 student maintaining his/her F-1 status at another educational institution and wishing to be concurrently enrolled at HCC must obtain a letter from the ISA/DSO at his/her parent institution confirming permission to take classes at HCC under the F-1 status. F-1 students maintaining status at other educational institutions are not eligible to work on the HCC campus until the student has received a SEVIS Form I-20 from HCC and approval to work on campus from an HCC ISA/DSO.

For more information, see www.hccs.edu/support-services/international-students.

Summer International Transient Students

Students who are attending another college or university and wish to take summer classes at HCC must provide a letter from the ISA/DSO at their parent institution that indicates they are maintaining their F-1 status and have been given permission to enroll at HCC.

English Proficiency and Course Placement

International students planning to enroll in academic programs must demonstrate English language proficiency. This can be accomplished by taking one of the following exams: TOEFL, IELTS, PTE Academic, ACCUPLACER (ESL), or an approved Texas Success Initiative (TSI) test. Students who have not taken an English language proficiency test will be administered the ACCUPLACER (ESL) test by HCC to determine the student's English language proficiency. Scores on the exams must meet state and institutional requirements for placement into college-level classes. Students who do not meet these requirements will be required to enroll in the Intensive English program. For more information, please visit www.hccs.edu/support-services/international-students/foreign-credentials.

International Transfer Students

A transfer student is any student who has previous college work and plans to pursue a certificate or degree at HCC. HCC admits transfer students who already have established F-1 status while attending other colleges and universities.

A transfer student may be admitted to either an academic program or the Intensive English program. Students planning to transfer to HCC must submit a complete application to the Office of International Services and Programs. For more information, please refer to the "New Students" section of www.hccs.edu/international.

Transfer Credit from Foreign Institutions

Students petitioning to receive transfer credit from foreign institutions must first have their transcripts evaluated by an approved evaluation agency. For a list of approved evaluation agencies, students may visit www.hccs.edu/support-services/international-students/foreign-credentials.

Check-in and Orientation for International Students

F-1 students new to the U.S. are required to report to our office for further instructions upon arriving in the country. Each semester, all incoming students (new, transfer, change-of-status, and reinstatement) are required to attend mandatory student orientation to learn more about adjusting to life in Houston and at HCC. Please visit www.hccs.edu/support-services/international-students/orientation.

F-1 Student Health Insurance

F-1 students at HCC are enrolled in the College's mandatory student health insurance for a fee upon registration. They cannot opt out of the plan unless a waiver of coverage is approved upon condition that the student has an acceptable alternative insurance plan. For more information, please visit www.hccs.edu/support-services/international-students/health-insurance.

Training Programs

Instructional programs and/or customized training are conducted through workforce partnerships to help students gain specific skills.

English for Speakers of Other Languages (ESOL) training and development for certificates and/or degrees are conducted through credit programs and continuing Education (CE).

For more information, see www.hccs.edu/corporate-college.

J-1 Visa Program

HCC is awarded the J-1 visa sponsorship through the U.S. Department of State. Only a few community colleges in the nation are eligible to host under the J-1 visa.

The J-1 program enables foreign nationals to come to the U.S. to teach, study, conduct research, demonstrate special skills, or receive on the job training for periods ranging from a few weeks to several years. The exchange of professors and research scholars promotes the exchange of ideas, research, mutual enrichment and linkages between research and academic institutions in the U.S. and foreign countries.

For more information about the J-1 Visitor Program or international initiatives, please contact the International Services and Programs (ISP) director at isp@hccs.edu.

Houston Community College (HCC) considers students holding a nonimmigrant visa to be international students. Prospective students maintaining any other type of visa status, except B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should call the program of choice for admission instructions and meet all applicable application and enrollment deadlines.

CENTERS OF EXCELLENCE

HCC's fourteen Centers of Excellence focus on top-notch faculty and industry best practices to give students the skills they need for a successful career. The programs range from manufacturing and global energy to logistics, engineering, fashion design and information technology. For more information, please visit www.hccs.edu/centers.

HCC GUARANTEE OF EDUCATIONAL EXCELLENCE

Houston Community College is committed to excellence in education. As an expression of this commitment, HCC guarantees its graduates both transfer credit and entry-level job skills. Such guarantee is a statement of confidence in the administration, faculty, and staff, as well as a commitment to the College's educational mission to empower students so they may achieve their highest potential.

This guarantee is expressly subject to and limited to special conditions identified in the following sections on job competency and transfer credit. The HCC obligation under this guarantee is limited to providing additional courses under the conditions prescribed in these sections.

Transfer Credit

HCC guarantees to those students earning the Associate of Arts, Associate of Arts in Teaching, and the Associate of Science degrees that their required courses will transfer to all public-supported Texas colleges and universities, subject to appropriate documentation. If these courses are rejected by the qualifying senior institution of the student's choice, HCC will offer the student an alternate tuition-free course that will transfer.

Transferability means the acceptance of HCC credit toward a specific major and degree at a specific institution, as defined by the student's transfer/degree plan. However, no institution of higher education shall be required to accept in transfer, or apply toward a degree program, more than sixty-six semester credit hours of lower-division academic credit. Institutions of higher education may choose to accept additional credit hours by agreement. The transfer guarantee of academic courses is subject to the following conditions:

- The student must file a written transfer/degree plan by the time the student has completed twelve semester hours or the equivalent at HCC. The transfer/degree plan must include the following: a) the specific institution to which the student plans to transfer, b) the bachelor's degree and major the student plans to pursue, and c) the date such decision was made.
- Courses must be identified by the receiving institutions as transferable and applicable toward a specific major. The receiving institution determines the following:
 - Total number of credits accepted for transfer;
 - Grades required;
 - Relevant grade point average; and
 - Duration of transferability.
- Required courses must have been taken at HCC no earlier than three years before the attempt to transfer.

If the above terms and conditions have been met and courses are not accepted by a receiving institution in transfer, the following terms and conditions are applicable:

- The student must submit to HCC a Notice of Transfer Credit Denial from the receiving institution (within ten days of denial) so the resolution process may begin.

- If transfer credit denial is not resolved, tuition-free transfer courses (semester hour for semester hour) must be taken within a one calendar year period.
- Although courses are tuition-free, students will be responsible for any fees or course-related expenses, other than the course-required books which HCC is responsible for providing at no cost to the student. The fees students are responsible for include General Fees, Technology Fees, Student Activity/Services Fees, Recreation Fees, and Out-of-District fees.

Job Competency

HCC guarantees that graduates earning workforce certificates or degrees will possess the job skills required for entry-level employment in the occupational field for which they have been trained. (This guarantee does not imply the graduate will pass any licensing or qualifying examination for a particular career.)

Any HCC workforce program certificate or degree graduate whom the employer determines is lacking in the technical or general educational skills necessary for entry to the position shall be provided up to nine tuition-free credit hours. A program of instruction must be designed to meet specific occupational competencies identified in technical courses which are competency-based and emphasize the acquisition of the skills necessary for immediate employment and/or career advancement. Program competencies are identified in the course syllabus provided to each student.

- This guarantee applies only to certificates and degrees of at least thirty semester hours or 360 contact hours.
- All course work in question must have been taken at HCC and taught by HCC instructors.
- The graduate must have earned the AAS or certificate in a workforce program listed in the HCC catalog no earlier than one year prior to the beginning date of the employment in question.
- The graduate must have completed the degree within a five-year period beginning at the point of first enrollment.
- The graduate must be employed full-time within twelve months of graduation and in a position directly related to the specific program completed at HCC.
- Within ninety days of the graduate's initial date of employment, the employer must certify in writing that the graduate lacks entry-level skills identified by HCC as program-exit competencies. The employer must specify the areas of deficiency.
- The employer, graduate, and HCC personnel will develop a written retraining plan. The retraining will be limited to nine credit hours or 360 contact hours related to the identified skill deficiency.
- The retraining must be completed within one calendar year from the time the plan is agreed upon.
- Although retraining is tuition-free, the graduate (or employer) is responsible for the cost of insurance, uniforms, fees, and any other course-related expenses. HCC is responsible for the cost of books required for the course work.

TRANSFER INFORMATION AND CREDIT

Transfer Policy

HCC analyzes credit accepted for transfer in terms of level, content, quality, comparability, and degree program relevance. Transfer of credit from one institution to another involves at least three considerations:

- The educational quality of the learning experience which the student transfers;
- The comparability of the nature, content, and level of the learning experience to that offered by the receiving institution; and
- The appropriateness and applicability of the learning experience to the programs offered by the receiving institution, in light of the student's educational goals.

Accreditations Accepted in Transfer

HCC accepts college level credit in transfer from colleges and universities accredited by any of the six regional accreditation bodies: Middle States Association of Colleges and Schools, New England Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and the Western Association of Colleges and Schools.

In addition, HCC accepts college level credit in transfer from colleges and universities by any of the following national accreditation bodies: Accreditation Commission for Acupuncture & Oriental Medicine, Accrediting Bureau of Health Education Schools, Accrediting Commission for Career Schools and Colleges, Accrediting Council for Continuing Education & Training, Accrediting Council for Independent Colleges and Schools (prior to 12/31/2016), American Board of Funeral Service Education, Association of Advanced Rabbinical & Talmudic Schools Accreditation, Association of Biblical Higher Education, Commission of Accrediting of the Association of Theological Schools, Council on Occupational Education, Distance Education Accrediting Commission, National Association of Schools of Theatre, and Transnational Association of Christian College and Schools.

Students Transferring to HCC from Other Colleges/Universities

Transfer students are students who have previous college work and plan to pursue a certificate or degree at HCC. HCC evaluates, accepts, and awards credit for transfer course work, experiential learning, advanced placement, and professional certificates that is consistent with the HCC mission and for which HCC can ensure that the course work and learning outcomes are at the collegiate level and comparable to HCC certificate and degree programs. Transfer students are required to send official transcripts from each previously attended college or university. Transfer work is evaluated within the first semester of attendance. If students submit their prior college work after the start of their first semester, their credit will not be posted until the official transcript arrives.

Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is a process for assessing learning gained outside a traditional academic environment. This could be learning acquired through military service, work experience, employer training programs, independent study, non-credit courses, open courseware, volunteer or community service. Prior Learning Assessment (PLA) is a means of evaluating what a student already knows at the college-level derived from these experiences for college credit, certification, or advanced standing toward further education or training. See PLA website for more information www.hccs.edu/resources-for/current-students/prior-learning-assessment.

To be eligible to earn PLA credit, a student must meet all Houston Community College admissions requirements. This includes having a term activated semester credit account. PLA credit is awarded only when it applies to an HCC program of study. The student should not have previously taken or attempted the course (by title) that is the same as the PLA credit for which they are applying. PLA credit cannot be applied to any Cooperative Education/Internship Program or Capstone course.

To commence the PLA process, students must first speak with their Pathway and Case Management Advisor. If it is determined that they are eligible for PLA, the student will begin the PLA process.

NOTE: A minimum of 25 percent of the credits for the HCC certificate or degree must be completed at HCC (in fulfillment of the residency requirement). Please note that credit earned by Advanced Placement (AP) exams do not count toward the residency requirement.

Credit by Examination

HCC awards credit for qualified scores on nationally standardized examinations for the following instruments: College Board Advanced Placement (AP) Examinations, the College Level Examination Program (CLEP), International Baccalaureate (IB) exams, and the Defense Activity for Non-Traditional Education Support (DANTES) subject exams, Sophia Learning exams (with ACE evaluation), Learning Counts exams (with ACE evaluation), Assessment and Learning in Knowledge Spaces (ALEKS with ACE evaluation) and Straighter Line (with ACE evaluation). Credit earned through these examinations will be recorded by the Registrar only after the student has completed six semester hours at HCC. Official test scores must be sent from the testing agency to the HCC Office of Admissions and Records. Contact the Testing Office for examination schedules and availability of the CLEP. Questions regarding credit received for the above national exams should be directed to the Advising Office.

More information on is available at www.hccs.edu/support-services/transfers/transferring-credits.

Students Transferring from HCC to Other Colleges/Universities

HCC recommends the following steps to students considering transferring to other colleges/universities:

- Meet with a HCC advisor at a student's community college campus to discuss academic goals, plans, and questions. For instance, the student should consider completing an associate degree before transferring. Some universities give preferential treatment in admission decisions, if a student transfers after completing an associate degree. Research indicates that students who have completed the associate degree perform better after transfer than those who did not complete the associate degree.
- If a student needs to transfer to another institution before the completion of an HCC associate degree, the student may be able to "transfer back" to HCC college credits from another institution in order to fulfill associate degree requirements. In most cases, a student can "transfer back" up to 42 college-level semester hours of credit within three years of leaving HCC to complete associate degree requirements. (Note: all graduation requirements must be fulfilled. See HCC catalog at www.hccs.edu/programs/catalog for more information.)
- HCC also recommends that students obtain a transfer plan from their HCC advisor. A transfer plan lists the university-required courses which can be taken at HCC toward a student's university bachelor's degree's major. If students are undecided about their choice of university or their choice of major, see an HCC career counselor for more help. To locate a counselor, go to www.hccs.edu/support-services/counseling/counselors-hcc.

For more information, see the “If You are Transferring from HCC” section of www.hccs.edu/support-services/transfers.

For a list of universities in which HCC has established articulation agreements, visit www.hccs.edu/support-services/transfers/agreements.

Transfer Dispute Resolution

If a student is informed by a Texas public college or university that it will not accept the transfer of any HCC academic course credit, the student may have a case for a transfer dispute which will ultimately be resolved by the Texas Higher Education Coordinating Board (THECB). Students should be cautioned that workforce course credits may or may not be transferable, depending upon the program and articulation agreements between HCC and the college or university involved.

Institutions of higher education, however, may choose to accept additional credit hours by agreement. If the student wishes to transfer credit later to work on a bachelor’s degree, the student should consult with an HCC program or advisor. Rules and procedures for the resolution of transfer disputes regarding lower-division courses have been formulated by the THECB as follows:

If an institution of higher education refuses to accept course credit earned by a student at another institution of higher education, the receiving institution shall provide written notice to the student and to the sending institution that transfer of course credit has been denied, along with the reasons for denial. Students may dispute the denial of transfer credit by contacting a designated official at either the sending or receiving institution.

The two institutions and the student shall attempt to resolve the dispute in accordance with THECB rules and guidelines.

If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days of the date the student received written notice of denial, the institution denying the course credit transfer shall notify the Commissioner of Higher Education of the unresolved dispute and the reasons for the continued denial of course credit transfer.

The Commissioner or a designee shall make the final determination in an unresolved dispute concerning the transfer of course credit and provide written notice of the determination to the involved student and institutions.

Transfer Limitation

Students who intend to transfer to baccalaureate degree programs should be aware of possible limitations on lower division course work. Most universities will generally not accept in transfer more than sixty-six semester credit hours of lower division academic credit; however, institutions may choose to accept additional hours by agreement.

CAREER AND JOB PLACEMENT

Career & Job Placement Services' offices are located at all main campuses as well as some satellite campuses. Career & Job Placement Services assists current and former HCC students with a variety of services including administering career assessments and providing placement services by connecting students with companies seeking talent for full or part-time employment jobs, as well as co-op/internship and externship opportunities. Career & Job Placement Services also assists students with developing career goals, resume writing, and interviewing, thus improving a student's overall competitiveness and job readiness skills.

Career & Job Placement Services connects students with their field(s) of interest by hosting professional development workshops with employers, as well as Industry-Focused Career Fairs throughout the year. HCC Career Fairs are held at all main campuses and some satellite locations.

To find an HCC Career Center location at each of the six colleges, visit www.hccs.edu/support-services/career-planning/contact-career-centers.

Office Hours:

Monday – Thursday: 8 a.m. - 6:30 p.m.
Friday: 8 a.m. - 5 p.m. (by Scheduled Appointment)

Drop-In Hours (Just Walk-In!):

Monday – Thursday: 10 a.m. - 12 p.m., 2 p.m. - 4 p.m.

For more information, please visit www.hccs.edu/support-services/career-planning.

HCC CareerHub

Students can interact with companies in their field of interest by using HCC's job search tool, CareerHub, which transforms students' career development experience in the following ways:

- Download the CareerHub App to view or apply for jobs from a mobile phone;
- Receive email or text notifications for jobs related to career interests;
- Upload a resume to the CareerHub Resume Book for employers to view;
- Apply for jobs in CareerHub and have a resume sent directly to the company;
- Record a mock interview in CareerHub, and then send it to Career Services for feedback; and
- Schedule resume writing and other appointments with any Career Center in the HCC System.

Students can login to this new tool with their current MyEagle credentials at www.myeagle.hccs.edu.

STUDENT ACTIVITIES

The Student Life and Recreational Sports Offices offer activities and programs that extend students' personal and intellectual growth. Some of the activities include student government, student associations, clubs, and organizations relating to student interests, honor societies, student publications (The Egalitarian and organization newsletters), recreational and intramural sports, as well as cultural, social, educational, and leadership development activities. Certain qualifications for participation may apply to certain activities. To get involved and find out more, visit www.hccs.edu/student-experience/student-life-on-campus.

HEALTH AND SAFETY INFORMATION

Health Services

HCC does not operate a Student Health Center; however, HCC is concerned about the health and welfare of its students and provides important health information to students. For information about student health insurance programs, visit www.hccs.edu/resources-for/current-students/student-health-insurance. Other health information can be found at the following:

- Bacterial Meningitis Vaccination
www.hccs.edu/applying-and-paying/meningitis
- Counseling, Mental Health, and Suicide Prevention
www.hccs.edu/support-services/counseling

Drug & Alcohol Abuse Prevention

www.hccs.edu/support-services/drug--alcohol-abuse-prevention

Alcohol and Controlled Substances Policy and Procedures

Alcohol shall be defined as use, consumption, possession, furnishing, manufacturing, or distributing of alcoholic or intoxicating beverages (except as expressly permitted by College regulations. A student shall be prohibited from using or being under the influence of intoxicating beverages at HCC. Both open containers and/or public intoxication are prohibited. Additionally, alcoholic beverages may not, in any circumstance, be used by, possessed by, or distributed to any person under age 21.

Controlled substances are those defined in the Texas Controlled Substances Act, as codified at Texas Health and Safety Code Section 481.001 *et seq.*, including, but not limited to, such substances as marijuana, hashish, heroin, cocaine, LSD, PCP, methamphetamine, anabolic steroids, human-growth hormones, and fentanyl.

1. Purpose:

Houston Community College is committed to providing its students and employees a drug- and alcohol-free workplace and learning environment to promote the reputation of HCC and its employees as responsible citizens of public trust, and to provide a consistent model of substance-free behavior for students. All employees and students are informed of the program and policy regarding the use of alcoholic beverages and controlled substances by means of the website, Student Handbook, and email.

2. Policy:

Houston Community College standards of conduct for all employees and students clearly prohibit the unlawful possession, use, or distribution of illicit drugs and alcohol on the campus, at College-

sponsored events, on any HCC premises, or as part of any of the school's activities. Students and employees who violate this policy will be subject to arrest and disciplinary action by the College imposed through established due process procedures as set forth in applicable law, applicable HCC Board Policy (referenced at the end of this section), and the Student Code of Conduct and Disciplinary Procedures.

Students

As a condition of enrollment, all students are required to follow HCC policy and regulations concerning alcohol and other drugs. The unlawful manufacture, distribution, dispensation, possession, sale, offer to sell, purchase, or use of a controlled substance or alcohol on campuses, at teaching sites, in vehicles, and on other property owned, leased, or under control of HCC, and at all on-campus and off-campus College-sponsored activities is prohibited. Students who violate the applicable HCC Board Policies and/or the Student Code of Conduct and Disciplinary Procedures regarding drugs and alcohol on campus will be subject to disciplinary action including but not limited to: referral to drug and alcohol counseling or rehabilitation programs, student assistance programs, suspension, expulsion, and/or referral to appropriate law enforcement officials for prosecution.

College Employees

While at work, each College employee has a responsibility to deliver service in a safe, efficient, and conscientious manner. Therefore, the use, sale, distribution, manufacturing, or possession of alcohol, or any drugs, including prescription medication used in an unauthorized manner, is strictly prohibited and may result in disciplinary action up to, and including, termination.

Each employee has access to HCC employee rules and regulations governing employee conduct in the HCC General New Employee Orientation Booklet (GNEO). These rules and regulations are in effect when on campus in any capacity and participating in any HCC (or College) sponsored activity, either on campus or at an off-campus event.

College employees are subject to disciplinary actions as outlined in the HCC/TE policies and regulations, found in Board Policies at DH(LOCAL), DH(LEGAL) and DI(EXHIBIT) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-d.

3. State and Federal Statutes:

Houston Community College provides notice of the federal and state laws and regulations, including legal sanctions, which govern alcoholic beverages and controlled substances. The laws are listed and can be found at the following location:

www.hccs.edu/support-services/drug-alcohol-abuse-prevention/standards-of-conduct-drugs-and-alcohol-abuse

4. Health Risks:

Houston Community College recognizes that drug and alcohol use is a health problem with serious consequences that affect students and their ability to reach their goals.

Health risks associated with drug and alcohol use can be found on the College Drinking, Change the Culture website and DEA-United States Drug Enforcement Administration websites:

www.collegedrinkingprevention.gov and www.dea.gov/factsheets

5. Prevention Program:

HCC has established a Drug and Alcohol Prevention Program to inform its faculty, staff, and students about the dangers of drug and alcohol abuse, penalties that may be imposed for drug and alcohol abuse violations, and available resources to combat drug and alcohol-related issues.

The following approaches and program activities and services constitute HCC's effort to prevent drug and alcohol abuse on the part of students. The Student Services division provides oversight for the content and timelines of the programs for students.

- a. Individual counseling services using Motivational/Feedback techniques
- b. Use of the Brief Alcohol Screening and Intervention for College Students (BASICS) administered by trained counselors
- c. To provide students individualized feedback HCC uses the following web-based surveys:
Alcohol eCheckUp To Go
www.echeckuptogo.com/programs/alcohol and
Marijuana eCheckUp To Go
www.echeckuptogo.com/programs/marijuana
- d. Educational Awareness Programs – At least one workshop, seminar, or presentation at event per college during the academic year open to students, faculty, and staff.
- e. Informational Services – Counseling offices provides readily available brochures and information sheets on alcohol and drug use to students.
- f. Referral Services – A list of referral services specialized in providing services and assisting individuals with substance use related issues.

6. Biennial Review:

On a biennial basis, a committee chaired by the Associate Vice Chancellor of Student Success and comprised of representatives from the police department, human resources, counseling, financial aid, and student life will conduct a review of the program to assess the following:

- a. Determine the effectiveness of the program and implement necessary changes.
- b. Determine the number of drug and alcohol-related violations and fatalities that occur on HCC campuses.
- c. Determine the number and type of sanctions that are imposed.
- d. Ensure that sanctions are consistently enforced.

For more information, see Board Policies FLB(LOCAL), FLBE (LEGAL) and FLBE (LOCAL) at www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

Police Services and Campus Safety

The HCC Police Department (HCCPD) is comprised of sworn police officers, licensed by the State of Texas, and civilian security officers, all who are here to assist students and staff and provide a safe learning environment. HCCPD accepts all reports of criminal incidents occurring on campus, is responsible for campus law enforcement requirements, emergency response, and the investigation of any campus crime. The department has a working relationship with the Houston Police Department, Harris County Sheriff Department, Fort Bend County Sheriff's Department, and the Stafford Police Department to provide assistance with incidents that require special resources. HCCPD may investigate violations of the law or College rules and regulations. Administrative violations may be adjudicated in the HCC discipline process via the Student Code of Conduct. Violations which rise to violations of the law will/may be adjudicated by the appropriate court system.

In the event of an Emergency on campus please call HCCPD at 713-718-8888 or dial 911.

HCCPD provides the following services:

- **Parking Passes** – Parking passes are available online annually after August 1 and are required to be displayed on all cars parked on campus. More information about parking passes can be found in a student's myeagle account.
- **Campus Escorts** – HCCPD will provide a safety escort to all students, faculty, or staff upon request. Campus escorts may be scheduled by calling 713-718-8888.
- **Vehicle Assists** – Vehicle assistance is provided through a contractor for jump-starts, car unlocks, and other disabled vehicle situations on most college campuses. Officers will assist students in calling a service provider. **PLEASE NOTE: All vehicle assist services must be paid for by the requester at the time the service is provided.**
- **Disabled Vehicles** – Disabled vehicles may not remain on College property. To request assistance, call 713-718-8888.
- **Lost and Found** – HCCPD maintains the Lost and Found service. If a student finds an item on campus, it should be brought to 3821 Caroline Street or turned in to a police officer. HCCPD will hold found items for ninety days (with some exceptions of items being disposed of sooner). To recover lost items, **call HCCPD at 713-718-8888 and an officer will be assigned to your inquiry.**
- **Crime Statistics** – HCCPD also makes available information related to campus crime statistics. This information may be found by visiting www.hccs.edu/departments/police/crime-statistics-information.
- **Safety Tips and Crime Prevention Information** – Resources are available at www.hccs.edu/departments/police/crime-prevention-safety to include active shooter training, domestic violence information, general safety tips, and much more.

To report that you have witnessed or been the victim of a crime, call HCCPD at 713-718-8888.

Campus Carry

On June 13, 2015, Governor Abbott signed into law Senate Bill 11 which added Section 411.2031 to the Texas Government Code and authorized License to Carry (LTC) holders to carry a concealed handgun on the campus of a public or private university in Texas, subject to rules and regulations adopted by the institution.

HCC has designated certain areas as weapons-free zones, in which concealed carrying of handguns by licensed individuals is prohibited. Signage is posted to mark these areas as weapons-free zones, and conform to applicable law. These designated areas may change daily based on the current use of a facility. When on campus, students, faculty, staff, and visitors should look for Section 30.06 signs which indicate the areas that are designated as weapons-free zones.

Open carry of handguns (or other firearms) on a college campus continues to be prohibited.

For more information, please reference Texas Penal Code Sections 30.06 and 46.035(b)(2).

For detailed information, visit www.hccs.edu/departments/police/campus-carry.

Weapons on Campus

HCC prohibits the use, possession, distribution, sale, or display of any firearms, location-restricted knives, clubs, or other prohibited weapons, as defined by the College's regulations and/or applicable state law, on College property or at a College-sponsored or -related activity, unless written authorization is granted in advance by the Chancellor or his designee. Students are encouraged to review the "Prohibited Weapons" definition in the Student Code of Conduct and Board Policies CHF(LOCAL), CHF(LEGAL), GFA(LEGAL), GFA(REGULATION) and FLB(LOCAL), and any other relevant Board Policies for more information.

Visible display of handguns on any HCC campus is prohibited, with the exception of licensed peace officers. License to Carry holders would be considered in violation of College regulations and state law if their handgun is plainly visible and they refuse to conceal it, or they are carrying a handgun in a designated weapons-free zone (as marked by Section 30.06 signage).

Students are encouraged to call HCCPD at 713-718-8888 if they see any individual **intentionally** displaying a weapon or they feel threatened.

STUDENT RIGHTS AND RESPONSIBILITIES

Freedom of Inquiry and Expression

Educational institutions exist for the transmission of knowledge, the pursuit of truth, the development of students, and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. Students and student organizations will be free to examine and discuss all questions of interest to them and to express opinions publicly and privately. They will be free to support causes in a manner which complies with laws, policies, and regulations that relate to student activities and conduct. At the same time, it should be made clear to the educational and the larger community that in their public expressions or demonstrations, students or student organizations speak only for themselves. Recognized student organizations will be allowed to invite and to hear any person of their choosing when the purpose of such an invitation is consistent with the College's policies, regulations, and the law. By law, the College does not advocate on behalf of particular political agendas or candidates. Hate messaging will not be tolerated and may result in disciplinary action.

Student Concerns

Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. In order to ensure that commitment, the College has developed procedures for students to address their concerns within the College community. A student who has an unresolved disagreement with a faculty or staff member, another student, or a student group, or is dissatisfied with the service he/she received, may initiate an attempt to address a concern without prejudicing his/her status with the College. It is the goal of HCC to assist all students in efficiently resolving their concerns.

Students should refer to the HCC policy or process for specific types of concerns:

- Discrimination, Harassment and Retaliation (see Board Policies FFDA and FFDB):
www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f
- Financial Aid Satisfactory Academic Progress Appeals:
www.hccs.edu/applying-and-paying/financial-aid
- Grade Appeals:
www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures
- Student Conduct (Board Policy FLB(LOCAL)):
www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f
- Student Code of Conduct:
www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/

Formal complaints not related to the issues noted above should follow the Non-Academic Student Complaint Policy (see Board Policy FLD(LOCAL)) at
www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f.

Students who have not been able to resolve their concern informally, may file a formal written complaint. Refer to one of the processes listed above based on the type of concern a student has and then submit a formal complaint at:

www.publicdocs.maxient.com/reportingform.php?HoustonCC&layout_id=5

For assistance in determining the correct procedure to follow, or to identify the appropriate Dean or supervisor for informal resolution, students can contact the Dean of Student Success at their campus for assistance at

www.hccs.edu/about-hcc/procedures/student-rights-policies-procedures/student-complaints/speak-with-the-dean-of-students.

Per the Texas Higher Education Coordinating Board's (THECB) rules codified under Title 19 of the Texas Administrative Code, Sections 1.110 – 1.120, after exhausting the institution's grievance/complaint process, current, former, and prospective students may initiate a complaint with THECB. Refer to THECB website for details on this process at:

www.thecb.state.tx.us/index.cfm?objectid=989FE9A0-2213-11E8-BC500050560100A9

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) publishes a Policy Statement on Complaint Procedures Against SACSCOC or Its Accredited Institutions. Students, employees, or others may initiate a complaint on alleged violations of SACSCOC Principles of Accreditation, the Core Requirements, and policies or procedures, as well as address possible violations of an institution's own policies and procedures, if related to the Principles. Refer to the Policy Statement for details on this process at www.sacscoc.org/app/uploads/2020/01/ComplaintPolicy-1.pdf.

DEGREE AND CERTIFICATE OPTIONS

Houston Community College offers the following awards to students once they have chosen their career paths and completed all necessary course and residency requirements. Students can obtain more information about specific options and their choices by consulting their academic advisor.

Associate of Arts – AA Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior for those who declare a major in the liberal or fine arts. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives.

Associate of Arts in Teaching – AAT Degree

This degree is a state-approved collegiate degree program consisting of lower-division courses intended for transfer to baccalaureate programs that lead to initial Texas teacher certification in grades Pre-K to 6 or 4-8. The degree includes 42 hours of the core curriculum and 18 hours in courses related to teaching.

Associate of Science – AS Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior for those who declare a major in the sciences, as math, engineering, biology, chemistry and others. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives relevant to the student's career path.

Associate of Applied Science – AAS Degree

This degree is specifically for students seeking technical career skills for work in a specific field or industry. The emphasis is on practical and applied skills, but does include 15 hours of general education core classes. It is primarily designed for work, not transfer, although general education core classes will transfer.

Certificates – Level One, Level Two, and Continuing Education

Certificates in a specialized career field will help a student gain skill for job advancement. Most certificates are designed to be stackable (Level One to Level Two) to help a student complete an AAS degree if so desired.

Occupational Skills Award – OSA

An OSA award prepares a student to enter a high-demand career field with minimal training.

Enhanced Skills Certificate – ESC

The certificate is pursued simultaneously with an AAS degree and offers specialization in a career field with targeted training.

Advanced Technical Certificate – ATC

After the student completes an Associate's or Bachelor's degree, the advanced technical certificate provides specialized career field training.

Institutional Certificate – IC

The certificate is for continuing education students seeking to gain in-demand technical career skills in a short period of time.

DEGREE AND CERTIFICATE REQUIREMENTS FOR GRADUATION

Houston Community College (HCC) offers various degrees and courses to serve the needs of its individual students. Students interested in academic transfer degrees (AA, AS, and AAT) may study courses and earn degrees that will transfer to four-year universities, while students interested in pursuing work or advancing in their workplace skills may earn AAS degrees or Certificates that improve employability. In addition, HCC also offers continuing education (CE) courses to enhance lifelong learning.

Students should work with an advisor at the beginning to help identify their program of study, take courses in the prescribed sequence or pathway, and choose their elective credits based on any transfer plans of their intended four-year university. Before the final semester, the student should again work with their advisor to assure that all requirements are met in order to file for graduation. In general, working closely with an advisor will create the seamless path to completion.

Core Curriculum

The core curriculum is designed to provide students with the foundational knowledge and transferable skills that are needed for future careers and work in a technological and global society. In addition, the core curriculum helps individual students to develop personal skills of critical thinking, communication, empirical and quantitative reasoning, teamwork, personal responsibility, and social responsibility. Core educated individuals are guided by a strong sense of values, ethics, and civic engagement. The Texas Higher Education Coordinating Board approved a 42-semester credit hour (SCH) core curriculum for undergraduate students in Texas which was implemented in fall of 2014 for all public colleges and universities offering academic degrees. It included the following statements of purpose, the six core objectives, and the foundational component areas.

Statement of Purpose

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives

- Critical Thinking Skills—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Communication Skills—to include effective development, interpretation and expression of ideas through written, oral and visual communication
- Empirical and Quantitative Skills—to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- Teamwork—to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
- Personal Responsibility—to include the ability to connect choices, actions, and consequences to ethical decision-making.
- Social Responsibility—to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

Foundational Component Areas

- **Communication**—(6 SCH) Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.
- **Mathematics**—(3 SCH) Courses in this category focus on quantitative literacy in logic, patterns and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate qualitative tools to everyday experience.
- **Life and Physical Sciences**—(6 SCH) Courses in this category focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.
- **Language, Philosophy & Culture**—(3 SCH) Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.
- **Creative Arts**—(3 SCH) Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.
- **American History**—(6 SCH) Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.
- **Government/Political Science**—(6 SCH) Courses in this category focus on consideration of the constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.
- **Social and Behavioral Sciences**—(3 SCH) Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals and groups.
- **Component Area Option**—(6 SCH)
 - A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundation component areas;
 - As an option for up to 3 SCH of the Component Area Option, an institution may select course(s) that (1) meet the definition specified for one or more of the foundational component areas and (2) includes a minimum of 3 core objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the Institution's choice.

General Associate Degree Requirements (for AA, AAT, and AS)

To be eligible for an Associate of Arts, Associate of Arts in Teaching, or an Associate of Science, a student must successfully:

1. Complete at least 60 hours, including 42 hours of core curriculum courses and 18 hours in the student's area of major and intended transfer major; for the Associate of Science, the student needs 6 additional hours of math and four additional hours of natural science.
2. Complete at least 25% of the semester hours toward the degree in the Houston Community College System. These hours may not be satisfied by credit by exam.
3. Have an overall 2.0 HCC grade point average.
4. Satisfy TSI requirements.
5. Resolve all financial obligations and return all college materials, including library books, to HCC prior to graduation.

General Associate of Applied Science Degree Requirements (AAS)

The Associate of Applied Science degree is designed for students who complete a college-level workforce education curriculum. The AAS degree prepares students for employment in a specific career, and the program pathway includes general education core requirements (15 hours) and specific applied or technical courses in the field.

AAS Requirements

To be eligible for an AAS degree, the student must successfully complete the following:

- 60 semester hours of credit and the prescribed curriculum for the two-year career and technology education program.
- Complete a minimum of 25% semester hours of credit toward the degree at HCC, 12 semester hours of which must be in the career and technology education program the student is pursuing. These hours may not be satisfied by Credit by Exam or Advanced Standing Credit.
- Have an overall 2.0 HCC GPA.
- Satisfy all TSI requirements.
- Resolve all financial obligations and return all materials to HCC prior to graduation.
- Multiple Associate of Applied Science degrees may be earned from HCC if all AAS program requirements are met, including earning at least 18 additional semester hours at HCC. Twelve of the hours must be earned in the major program of the additional degree.

The general education electives for each program must contain a minimum of 15 college credit hours. These must be taken from the following categories:

- Humanities/Fine Arts 3 SCH
- Social/Behavioral Science 3 SCH
- Math/Natural Science 3 SCH
- General Education Electives 6 SCH

Certificate Programs and General Requirements

Houston Community College awards certificates upon completion of courses that have been industry-validated and designed to develop and upgrade the skills in a specific occupation. These programs vary in length and time based on Level One or Level Two. To be awarded a certificate, a student must do the following:

- Fulfill all course requirements for the certificate, by completing 50% of the coursework at HCC.
- Earn a GPA of 2.0 in all courses required for the certificate.
- Apply for graduation before the announced deadline.
- Students who are pursuing an Advanced Technical Certificate must complete a related associate or bachelor's degree prior to enrollment.

Semester Credit Hour

A semester credit hour (SCH) is the amount of credit a student earns for successful completion of one contact hour (in class) and two preparation (out-of-class) hours per week for a semester. One semester hour equals 16 contact hours per semester, regardless of the duration of the course. Basically, for a one-semester credit hour course, you should invest one contact hour in class and two additional preparation or homework hours each week that take place out-of-class.

Example: 3 Credits (SCH) = 3 instructional hours in class (virtual or otherwise) and 6 hours out-of-class (homework etc.)

CORE CURRICULUM ELECTIVES FOR ACADEMIC DEGREE PROGRAMS

	Minimum SCH Required for the AA or AS Degree
Communication	6
Mathematics	3
Life & Physical Sciences	6
Language, Philosophy, & Culture	3
Creative Arts	3
American History	6
Government/Political Science	6
Social & Behavioral Sciences	3
Component Area Option	6
Total	42

	SCH
Communication - 6 SCH	
ENGL 1301 Composition I	3
ENGL 1302 Composition II	3
ENGL 2311 Technical & Business Writing	3
Mathematics - 3 SCH	
MATH 1314 College Algebra	3
MATH 1316 Plane Trigonometry	3
MATH 1324 Mathematics for Business & Social Sciences	3
MATH 1325 Calculus for Business & Social Sciences	3
MATH 1332 Contemporary Mathematics	3
MATH 1342 Elementary Statistical Methods	3
MATH 1350 Mathematics for Teachers I	3
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
MATH 2412 Pre-Calculus Math	4
MATH 2413 Calculus I	4
PHIL 2303 Introduction to Formal Logic	3
PSYC 2317 Statistical Methods in Psychology	3
Life & Physical Sciences - 6 SCH	
ANTH 2301 Physical Anthropology (Lecture)	3
ASTR 1303 Stars & Galaxies (Lecture)	3
ASTR 1304 Solar System (Lecture)	3

ASTR	1403	Stars & Galaxies (Lecture & Lab)	4
ASTR	1404	Solar System (Lecture & Lab)	4
BIOL	1306	Biology for Science Majors I (Lecture)	3
BIOL	1308	Biology for Non-Science Majors I (Lecture)	3
BIOL	1309	Biology for Non-Science Majors II (Lecture)	3
BIOL	1322	Nutrition & Diet Therapy	3
BIOL	1407	Biology for Science Majors II (Lecture & Lab)	4
BIOL	2301	Anatomy & Physiology I (Lecture)	3
BIOL	2302	Anatomy & Physiology II (Lecture)	3
CHEM	1305	Introductory Chemistry I (Lecture)	3
CHEM	1311	General Chemistry I (Lecture)	3
CHEM	1405	Introductory Chemistry I (Lecture & Lab)	4
CHEM	1412	General Chemistry II (Lecture & Lab)	4
GEOG	1301	Physical Geography Earth Sciences for Non-Science Majors I	3
GEOL	1301	(Lecture)	3
GEOL	1305	Environmental Science (Lecture)	3
GEOL	1345	Oceanography (Lecture)	3
GEOL	1347	Meteorology (Lecture)	3
GEOL	1403	Physical Geology (Lecture & Lab)	4
GEOL	1404	Historical Geology (Lecture & Lab)	4
PHYS	1305	Elementary Physics I (Lecture)	3
PHYS	1401	College Physics I (Lecture & Lab)	4
PHYS	1402	College Physics II (Lecture & Lab)	4
PHYS	2325	University Physics I (Lecture)	3
PHYS	2326	University Physics II (Lecture)	3

Language, Philosophy, & Culture - 3 SCH

ENGL	2322	British Literature I	3
ENGL	2323	British Literature II	3
ENGL	2327	American Literature I	3
ENGL	2328	American Literature II	3
ENGL	2332	World Literature I	3
ENGL	2333	World Literature II	3
ENGL	2341	Forms of Literature	3
ENGL	2351	Mexican American Literature	3
HIST	2311	Western Civilization I	3
HIST	2312	Western Civilization II	3
HIST	2321	World Civilizations I	3
HIST	2322	World Civilizations II	3

HUMA	1305	Introduction to Mexican American Studies	3
HUMA	2319	American Minority Studies	3
HUMA	2323	World Cultures	3
PHIL	1301	Introduction to Philosophy	3
PHIL	1304	Introduction to World Religions	3
PHIL	2306	Introduction to Ethics	3
PHIL	2307	Introduction to Social & Political Philosophy	3
PHIL	2316	Classical Philosophy	3

Creative Arts - 3 SCH

ARTS	1301	Art Appreciation	3
ARTS	1303	Art History I	3
ARTS	1304	Art History II	3
ARTS	1313	Foundations of Art	3
DANC	1305	World Dance	3
DANC	2303	Dance Appreciation	3
DRAM	1310	Theater Appreciation	3
DRAM	2361	History of the Theater I	3
DRAM	2366	Film Appreciation	3
HUMA	1301	Introduction to Humanities I	3
HUMA	1311	Mexican American Fine Arts Appreciation	3
MUSI	1303	Fundamentals of Music	3
MUSI	1306	Music Appreciation	3
MUSI	1307	Music Literature	3
MUSI	1310	American Music	3

American History - 6 SCH

HIST	1301	United States History I	3
HIST	1302	United States History II	3
HIST	2301	Texas History	3
HIST	2327	Mexican American History I	3
HIST	2328	Mexican American History II	3
HIST	2381	African-American History	3
HIST	2382	African-American History II	3

Government/Political Science - 6 SCH

GOVT	2305	Federal Government	3
GOVT	2306	Texas Government	3

Social & Behavioral Sciences - 3 SCH

ANTH	2346	General Anthropology	3
ANTH	2351	Cultural Anthropology	3
ECON	1301	Introduction to Economics	3

ECON	2301	Principles of Macroeconomics	3
ECON	2302	Principles of Microeconomics	3
GEOG	1302	Human Geography	3
GEOG	1303	World Regional Geography	3
PSYC	2301	General Psychology	3
PSYC	2314	Lifespan Growth & Development	3
PSYC	2316	Psychology of Personality	3
PSYC	2319	Social Psychology	3
SOCI	1301	Introduction to Sociology	3
SOCI	1306	Social Problems	3
SOCI	2336	Criminology	3
TECA	1354	Child Growth & Development	3

Component Area Option - 6 SCH

Any course listed above, or:

ANTH	2101	Physical Anthropology (Lab)	1
ANTH	2302	Introduction to Archaeology	3
ARAB	1411	Beginning Arabic I	4
ARAB	1412	Beginning Arabic II	4
ARTS	1313	Foundations of Art	3
BIOL	1106	Biology for Science Majors I (Lab)	1
CHEM	1111	General Chemistry I (Lab)	1
CHIN	1411	Beginning Chinese I	4
CHIN	1412	Beginning Chinese II	4
COMM	1307	Introduction to Mass Communication	3
COMM	2311	Media Writing	3
COSC	1436	Programming Fundamentals I	4
EDUC	1300	Learning Framework	3
FREN	1411	Beginning French I	4
FREN	1412	Beginning French II	4
GERM	1411	Beginning German I	4
GERM	1412	Beginning German II	4
HIST	2382	African American History II	3
JAPN	1411	Beginning Japanese I	4
JAPN	1412	Beginning Japanese II	4
KORE	1411	Beginning Korean I	4
KORE	1412	Beginning Korean II	4
MATH	1351	Mathematics for Teachers II	3
MATH	2414	Calculus II	4
MATH	2415	Calculus III	4

MUSI	1303	Fundamentals of Music	3
KINE	1304 ¹	Personal/Community Health	3
KINE	1306 ¹	First Aid	3
PHIL	2303	Introduction to Formal Logic	3
PHYS	2125	University Physics I (Lab)	1
PHYS	2126	University Physics II (Lab)	1
PSYC	2320	Abnormal Psychology	3
PSYC	2330	Biological Psychology	3
SOCI	2301	Marriage & the Family	3
SOCI	2326	Social Psychology	3
SPAN	1411	Beginning Spanish I	4
SPAN	1412	Beginning Spanish II	4
SPCH	1311	Introduction to Speech Communication	3
SPCH	1315	Public Speaking	3
SPCH	1318	Interpersonal Communication	3
SPCH	1321	Business & Professional Communication	3

¹ AA and AS students may use either KINE 1304 or KINE 1306 to fulfill 3 SCH of the Component Area Option. A student cannot use both of these courses to satisfy the 6 SCH CAO requirement for the academic degree.

CORE CURRICULUM GENERAL EDUCATION ELECTIVES FOR WORKFORCE DEGREE PROGRAMS

	Minimum SCH Required for the AAS Degree
Humanities/Fine Arts	3
Social/Behavioral Science	3
Math/Natural Science	3
General Education Electives	6
Total	15

Humanities/Fine Arts Electives			SCH
ARTS	1301	Art Appreciation	3
ARTS	1303	Art History I	3
ARTS	1304	Art History II	3
ARTS	1313	Foundations of Art	3
DANC	1305	World Dance	3
DANC	2303	Dance Appreciation	3
DRAM	1310	Theater Appreciation	3
DRAM	2361	History of the Theater I	3
DRAM	2366	Film Appreciation	3
ENGL	2322	British Literature I	3
ENGL	2323	British Literature II	3
ENGL	2327	American Literature I	3
ENGL	2328	American Literature II	3
ENGL	2332	World Literature I	3
ENGL	2333	World Literature II	3
ENGL	2341	Forms of Literature	3
ENGL	2351	Mexican American Literature	3
HIST	1301	United States History I	3
HIST	1302	United States History II	3
HIST	2301	Texas History	3
HIST	2311	Western Civilization I	3
HIST	2312	Western Civilization II	3
HIST	2321	World Civilizations I	3
HIST	2322	World Civilizations II	3
HIST	2327	Mexican American History I	3

HIST	2328	Mexican American History II	3
HIST	2381	African-American History	3
HIST	2382	African-American History	3
HUMA	1301	Introduction to Humanities I	3
HUMA	1305	Introduction to Mexican American Studies	3
HUMA	1311	Mexican American Fine Arts Appreciation	3
HUMA	2319	American Minority Studies	3
HUMA	2323	World Cultures	3
MUSI	1303	Fundamentals of Music	3
MUSI	1306	Music Appreciation	3
MUSI	1307	Music Literature	3
MUSI	1310	American Music	3
PHIL	1301	Introduction to Philosophy	3
PHIL	1304	Introduction to World Religions	3
PHIL	2306	Introduction to Ethics	3
PHIL	2307	Introduction to Social & Political Philosophy	3
PHIL	2316	Classical Philosophy	3

Social/Behavioral Sciences Electives

ANTH	2346	General Anthropology	3
ANTH	2351	Cultural Anthropology	3
ECON	1301	Introduction to Economics	3
ECON	2301	Principles of Macroeconomics	3
ECON	2302	Principles of Microeconomics	3
EDUC	1300	Learning Framework	3
GEOG	1302	Human Geography	3
GEOG	1303	World Regional Geography	3
GOVT	2305	Federal Government	3
GOVT	2306	Texas Government	3
PSYC	2301	General Psychology	3
PSYC	2314	Lifespan Growth & Development	3
PSYC	2316	Psychology of Personality	3
PSYC	2319	Social Psychology	3
SOCI	1301	Introduction to Sociology	3
SOCI	1306	Social Problems	3
SOCI	2301	Marriage & the Family	3
SOCI	2336	Criminology	3
TECA	1354	Child Growth & Development	3

Math/Natural Science Electives			SCH
ANTH	2101	Physical Anthropology (Lab)	1
ANTH	2301	Physical Anthropology (Lecture)	3
ANTH	2302	Introduction to Archaeology	3
ASTR	1303	Stars & Galaxies (Lecture)	3
ASTR	1304	Solar System (Lecture)	3
ASTR	1403	Stars & Galaxies (Lecture & Lab)	4
ASTR	1404	Solar System (Lecture & Lab)	4
BIOL	1106	Biology for Science Majors I (Lab)	1
BIOL	1306	Biology for Science Majors I (Lecture)	3
BIOL	1308	Biology for Non-Science Majors I (Lecture)	3
BIOL	1309	Biology for Non-Science Majors II (Lecture)	3
BIOL	1322	Nutrition & Diet Therapy	3
BIOL	1407	Biology for Science Majors II (Lecture & Lab)	4
BIOL	2301	Anatomy & Physiology I (Lecture)	3
BIOL	2302	Anatomy & Physiology II (Lecture)	3
CHEM	1111	General Chemistry I (Lab)	1
CHEM	1305	Introductory Chemistry I (Lecture)	3
CHEM	1311	General Chemistry I (Lecture)	3
CHEM	1405	Introductory Chemistry I (Lecture & Lab)	4
CHEM	1412	General Chemistry II (Lecture & Lab)	4
COSC	1436	Programming Fundamentals I	4
GEOG	1301	Physical Geography Earth Sciences for Non-Science Majors I	3
GEOL	1301	(Lecture)	3
GEOL	1305	Environmental Science (Lecture)	3
GEOL	1345	Oceanography (Lecture)	3
GEOL	1347	Meteorology (Lecture)	3
GEOL	1403	Physical Geology (Lecture & Lab)	4
GEOL	1404	Historical Geology (Lecture & Lab)	4
MATH	1314	College Algebra	3
MATH	1316	Plane Trigonometry	3
MATH	1324	Mathematics for Business & Social Sciences	3
MATH	1325	Calculus for Business & Social Sciences	3
MATH	1332	Contemporary Mathematics	3
MATH	1342	Elementary Statistical Methods	3
MATH	1350	Mathematics for Teachers I	3
MATH	1351	Mathematics for Teachers II	3
MATH	2318	Linear Algebra	3

MATH	2320	Differential Equations	3
MATH	2412	Pre-Calculus Math	4
MATH	2413	Calculus I	4
MATH	2414	Calculus II	4
MATH	2415	Calculus III	4
PHIL	2303	Introduction to Formal Logic	3
PHYS	1305	Elementary Physics I (Lecture)	3
PHYS	1401	College Physics I (Lecture & Lab)	4
PHYS	1402	College Physics II (Lecture & Lab)	4
PHYS	2125	University Physics I (Lab)	1
PHYS	2126	University Physics II (Lab)	1
PHYS	2325	University Physics I (Lecture)	3
PHYS	2326	University Physics II (Lecture)	3
PSYC	2317	Statistical Methods in Psychology	3

General Education Electives

SCH

Choose (6 credits) from the entire list
above

Description of HCC's programs are available at www.hccs.edu/finder/

FIELD OF STUDY CURRICULA

A Field of Study (FOS) is a selection of lower-division courses that are guaranteed by state law to transfer and apply to a degree program. If a student takes all the courses in a FOS and then transfers to another Texas public institution of higher education, the FOS is guaranteed to transfer as a block and be applied to the appropriate major. If a student has completed the FOS, the Texas common core curriculum, and any university or college courses required of all students regardless of major, then the student is finished with all the lower-division courses for the degree program at any Texas public institution. If a student transfers with an incomplete FOS, then each completed FOS course is guaranteed to transfer and apply to the degree program, although the institution may require additional lower-division courses.

The Field of Study curricula that have been approved are incorporated into the associate degree plans for: Biology, Business, Communications, Computer Science, Criminal Justice, Drama, Engineering, English, History, Mathematics, Interdisciplinary Studies, Music, Government, and Psychology. FOS designations are also available for Economics and Sociology, an option in Multidisciplinary Studies.

Field of Study Curricula approved by the Texas Higher Education Coordinating Board are incorporated into maps. Houston Guided Pathways (GPS) maps include courses that apply to lower-level requirements in specified degrees across Houston GPS institutions without resulting in excess credit upon transfer. Courses are in the Lower-Division Academic Course Guide Manual (ACGM) and course numbers provided are those in the Texas Common Course Numbering System.

Field of Study Curricula Approved by the Texas Higher Education Coordinating Board

www.thecb.state.tx.us/institutional-resources-programs/public-universities-health-related-institutions/transfer-resources/field-of-study-curricula/

Currently approved (as of May 8, 2020):

Architecture *	Health & Wellness *
Biology	History
Business Administration and Management	Journalism
Communications	Mathematics
Computer Science / Information Technology	Mexican American Studies
Criminal Justice	Music
Drama	Nursing
Economics	Political Science * (Government)
Engineering	Psychology
Engineering Technology*	Radio and Television
English Language and Literature	Social Work*
Fine Arts	Sociology

**Houston Community College does not offer Field of Study Curricula for these programs at this time*

2020-2021 Academic Degrees and Certificates

Associate of Arts in ANTHROPOLOGY

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1342	Elementary Statistical Methods	3
Bachelor of Arts Transfer Specialization		
XXXX 1411 ²	Beginning Foreign Language I	4
Bachelor of Science Transfer Specialization		
ANTH 2346	General Anthropology	3
Semester Total		15-16⁷
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
ANTH 2301	Physical Anthropology (Lecture)	3
ANTH 2101	Physical Anthropology (Lab)	1
Bachelor of Arts Transfer Specialization		
XXXX 1412 ³	Beginning Foreign Language II	4
Bachelor of Science Transfer Specialization		
GEOG 1303	World Regional Geography OR	
PSYC 2301	General Psychology	3
MATH #3## ²	Mathematics Elective	3
Semester Total		14-16⁷
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
ANTH 2351	Cultural Anthropology	3
BIOL #3## ⁴	Biology Elective OR	
CHEM #3## ⁵	Chemistry Elective	3
Bachelor of Arts Transfer Specialization		
XXXX 2311 ³	Intermediate Foreign Language I	3
Bachelor of Science Transfer Specialization		
MATH #3## ²	Mathematics Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Creative Arts Elective	3
GOVT 2306	Texas Government	3
GEOG 1302	Human Geography OR	
SOCI 1301	Introduction to Sociology	3

Bachelor of Arts Transfer Specialization

ANTH 2302	Introduction to Archaeology OR	
ANTH 2346	General Anthropology	3
XXXX 2312 ³	Intermediate Foreign Language II	3

Bachelor of Science Transfer Specialization

ANTH 2302	Introduction to Archaeology	3
XXXX #3## ⁶	Approved Elective	3

Semester Total **15**

Total Minimum Credits for the AA Degree⁷ **60**

- 1 A list of electives appears in the Core Curriculum section of this catalog.
- 2 All four foreign language courses must be in one language: French or Spanish.
- 3 All four foreign language courses must be in one language: French or Spanish.
- 4 Biology electives: BIOL 1308, 1413.
- 5 Chemistry elective: CHEM 1305, 1405, or 1311.
- 6 Consult with an advisor to select an appropriate elective.
- 7 The BS Transfer Specialization has 61 semester credit hours.

**Associate of Arts in
 BUSINESS
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1324	Mathematics for Business & Social Sciences	3
BCIS 1305	Business Computer Applications	3
BUSI 1301	Business Principles	3
Semester Total		15
Second Semester - Spring		
ACCT 2301	Principles of Financial Accounting	3
ECON 2301	Principles of Macroeconomics	3
HIST #3## ¹	American History Elective	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
BUSI 2305	Business Statistics	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
ACCT 2302	Principles of Managerial Accounting	3
GOVT 2305	Federal Government	3
ECON 2302	Principles of Microeconomics	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
PHIL 2306	Introduction to Ethics	3
Semester Total		15
Second Semester - Spring		
XXXX #3## ¹	Life & Physical Sciences Elective	3
GOVT 2306	Texas Government	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Creative Arts Elective	3
MATH 1325 ²	Calculus for Business & Social Sciences OR	
PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology OR	
XXXX #3## ¹	General Education Elective	3
Semester Total		15
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Some transfer institutions require MATH 1325. Please consult with an advisor.

**Associate of Arts in
 COMMUNICATIONS**

Field of Study Curriculum

		FIRST YEAR	SCH
First Semester - Fall			
EDUC 1300	Learning Framework		3
ENGL 1301	Composition I		3
MATH 1332	Contemporary Mathematics OR		
MATH 1342	Elementary Statistical Methods		3
Advertising/Public Relations Specialization			
COMM 1307	Introduction to Mass Communication		3
COMM 2327	Introduction to Advertising		3
Journalism - Teacher Certification Specialization ⁴			
COMM 1307	Introduction to Mass Communication		3
COMM 1335	Introduction to Electronic Media OR		
COMM 2300	Media Literacy OR		
COMM 2302	Principles of Journalism		3
Mass Media Specialization			
COMM 1307	Introduction to Mass Communication		3
COMM 1335	Introduction to Electronic Media OR		
COMM 2300	Media Literacy OR		
COMM 2302	Principles of Journalism		3
Speech Communication Specialization			
SPCH 1311	Introduction to Speech Communication		3
COMM 1307	Introduction to Mass Communication OR		
XXXX #3## ^{1, 3}	Liberal Arts Elective		3
Semester Total			15
Second Semester - Spring			
ENGL 1302	Composition II OR		
ENGL 2311	Technical & Business Writing		3
HIST #3## ²	American History Elective I		3
XXXX #3## ²	Creative Arts Elective		3
XXXX #3## ²	Social & Behavioral Sciences Elective		3
Advertising/Public Relations Specialization			
COMM 2330	Introduction to Public Relations		3
Journalism - Teacher Certification Specialization ⁴			
COMM 2311	Media Writing		3
Mass Media Specialization			
COMM 2311	Media Writing		3
Speech Communication Specialization			
SPCH 1315	Public Speaking		3
Semester Total			15

SECOND YEAR

First Semester - Fall

XXXX #3## ²	Language, Philosophy, & Culture Elective	3
HIST #3## ²	American History Elective II	3
GOVT 2305	Federal Government	3
XXXX #3## ²	Life & Physical Sciences Elective	3

Advertising/Public Relations Specialization

COMM 2324	Practicum in Electronic Media OR	
COMM 2389	Academic Cooperative	3

Journalism - Teacher Certification Specialization⁴

EDUC 1301	Introduction to the Teaching Profession	3
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Mass Media Specialization

COMM 2324	Practicum in Electronic Media OR	
COMM 2389	Academic Cooperative	3

Speech Communication Specialization

SPCH 1318	Interpersonal Communication	3
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Semester Total **15**

Second Semester - Spring

XXXX #3## ²	Life & Physical Sciences Elective	3
GOVT 2306	Texas Government	3
XXXX #3## ²	Component Area Option	3

Advertising/Public Relations Specialization

XXXX #3## ^{1,3}	Liberal Arts Elective	3
COMM 2300	Media Literacy OR	
COMM 2305	Editing & Layout OR	
COMM 2311	Media Writing	3

Journalism - Teacher Certification Specialization⁴

COMM 1336	Video Production IOR	
COMM 2305	Editing & Layout OR	
COMM 2315	News Reporting	3
COMM 1336	Video Production IOR	
COMM 2305	Editing & Layout OR	
COMM 2315	News Reporting	3

Mass Media Specialization

COMM 1336	Video Production IOR	
COMM 2305	Editing & LayoutOR	
COMM 2315	News Reporting	3
COMM 1336	Video Production IOR	
COMM 2305	Editing & LayoutOR	
COMM 2315	News Reporting	3

Speech Communication Specialization

XXXX #3## ¹³	Liberal Arts Elective	3
SPCH 1321	Business & Professional Communication	3

Semester Total **15**

Total Minimum Credits for the AA Degree **60**

- ¹ Liberal arts electives include the following selections from the Core
- ² A list of electives appears in the Core Curriculum section of this catalog.
- ³ **Note:** Students transferring to a BA program in Communication(s) will need 6 hours of the same intermediate foreign language (LANG 2311 and 2312).
- ⁴ **Note:** Missing EDUC 2301 Introduction to Special Populations in Field of Study Journalism Teacher Certification Specialization.

**Associate of Arts in
 COMPUTER INFORMATION SYSTEMS**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1324	Mathematics for Business & Social Sciences	3
BCIS 1305	Business Computer Applications	3
HIST #3## ¹	American History Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
MATH 1325	Calculus for Business & Social Sciences	3
COSC 1436	Programming Fundamentals I	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
HIST #3## ¹	American History Elective	3
Semester Total		16
SECOND YEAR		
First Semester - Fall		
ACCT 2301	Principles of Financial Accounting	3
COSC 1437	Programming Fundamentals II	4
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
Semester Total		16
Second Semester - Spring		
MATH 1342	Elementary Statistical Methods OR	
ACCT 2302	Principles of Managerial Accounting	3
COSC 2425	Computer Organization	4
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2306	Texas Government	3
Semester Total		13
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**Associate of Arts in
 DANCE**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1332	Contemporary Mathematics	3
DANC 1201	Dance Composition - Improvisation	2
DANC 1245	Beginning Modern Dance	2
Semester Total		16
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3## ²	American History Elective	3
DANC 1241	Beginning Ballet	2
DANC 1247	Beginning Jazz Dance	2
DANC 1110	Tap Dance OR	
DANC 1128	Ballroom & Social Dance	1
DANC 1151	Freshman Dance Performance	1
DANC 1305	World Dance	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
DANC 2241	Intermediate Ballet	2
DANC 2247	Intermediate Jazz Dance	2
DANC 1112	Dance Practicum	1
Semester Total		14
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
DANC 2303	Dance Appreciation	3
DANC 2151	Sophomore Dance Performance	1
DANC 2245	Intermediate Modern Dance	2
Semester Total		15
Total Minimum Credits for the AA Degree		60

¹ American History Elective I (1301, 1302, 2301, 2328, & 2381)

**Associate of Arts in
 DRAMA
 General - Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
DRAM 1310	Theater Appreciation	3
DRAM 1120	Theater Practicum I	1
Semester Total		13
Second Semester - Spring		
ENGL 1302	Composition II	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
HIST #3## ¹	American History Elective	3
DRAM 1351	Acting I	3
DRAM 1330	Stagecraft I	3
DRAM 1121	Theater Practicum II	1
Semester Total		16
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #2## ¹	Social & Behavioral Elective	2
GOVT 2305	Federal Government	3
DRAM 1322	Stage Movement OR	
DRAM 1341	Stage Makeup OR	
DRAM 1342	Costume Technology OR	
DRAM 1352	Acting II OR	
DRAM 2331	Stagecraft II OR	
DRAM 2335	Theater Design	3
DRAM 2120	Theater Practicum III	1
Semester Total		15

Second Semester - Spring

HIST #3## ¹	American History Elective	3
GOVT 2306	Texas Government	3
DRAM 1322	Stage Movement OR	
DRAM 1341	Stage Makeup OR	
DRAM 1342	Costume Technology OR	
DRAM 1352	Acting II OR	
DRAM 2331	Stagecraft II OR	
DRAM 2335	Theater Desigr	3
DRAM 2361	History of the Theater I	3
DRAM 2355	Script Analysis	3
DRAM 2121	Theater Practicum IV	1

Semester Total 16

Total Minimum Credits for the AA Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**Associate of Arts in
 DRAMA
 Performance-Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
DRAM 1310	Theater Appreciation	3
DRAM 1120	Theater Practicum I	1
Semester Total		13
Second Semester - Spring		
ENGL 1302	Composition II	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
HIST #3## ¹	American History Elective	3
DRAM 1351	Acting I	3
DRAM 1330	Stagecraft I	3
DRAM 1121	Theater Practicum II	1
Semester Total		16
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #2## ¹	Social & Behavioral Elective	2
GOVT 2305	Federal Government	3
DRAM 1322	Stage Movement OR	
DRAM 1341	Stage Makeup OR	
DRAM 1352	Acting II	3
DRAM 2120	Theater Practicum III	1
Semester Total		15

Second Semester - Spring

HIST #3## ¹	American History Elective	3
GOVT 2306	Texas Government	3
DRAM 1322	Stage Movement OR	
DRAM 1341	Stage Makeup OR	
DRAM 1352	Acting II	3
DRAM 1322	Stage Movement OR	
DRAM 1341	Stage Makeup OR	
DRAM 1352	Acting II	3
DRAM 2355	Script Analysis	3
DRAM 2121	Theater Practicum IV	1
	Semester Total	16
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DRAMA

Design Technology - Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
DRAM 1310	Theater Appreciation	3
DRAM 1120	Theater Practicum I	1
Semester Total		13
Second Semester - Spring		
ENGL 1302	Composition II	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
HIST #3## ¹	American History Elective	3
DRAM 1351	Acting I	3
DRAM 1330	Stagecraft I	3
DRAM 1121	Theater Practicum II	1
Semester Total		16
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #2## ¹	Social & Behavioral Elective	2
GOVT 2305	Federal Government	3
DRAM 1322	Stage Movement OR	
DRAM 1342	Costume Technology OR	
DRAM 2331	Stagecraft II OR	
DRAM 2335	Theater Design	3
DRAM 2120	Theater Practicum III	1
Semester Total		15

Second Semester - Spring

HIST #3## ¹	American History Elective	3
GOVT 2306	Texas Government	3
DRAM 1341	Stage Makeup OR	
DRAM 1342	Costume Technology OR	
DRAM 2331	Stagecraft II OR	
DRAM 2335	Theater Desigr	3
DRAM 1341	Stage Makeup OR	
DRAM 1342	Costume Technology OR	
DRAM 2331	Stagecraft II OR	
DRAM 2335	Theater Desigr	3
DRAM 2355	Script Analysis	3
DRAM 2121	Theater Practicum IV	1
	Semester Total	16
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**Associate of Arts in
 ENGLISH
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Approved Mathematics Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
XXXX #3## ⁴	Liberal Arts Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
ENGL 2341	Forms of Literature	3
ENGL 23##	English Literature/Creative Writing Elective	3
ENGL 23##	English Literature/Creative Writing Elective	3
GOVT 2305	Federal Government	3
XXXX 1411	Beginning Foreign Language	4
Semester Total		16
Second Semester - Spring		
ENGL 23##	English Literature/Creative Writing Elective	3
XXXX 1412	Beginning Foreign Language I	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #1## ⁵	Transferable Elective	1
Semester Total		14
Total Minimum Credits for the AA Degree		60

- ¹ A list of electives appears in the Core Curriculum section of this catalog.
- ² Consult with an advisor to select an appropriate MATH course.
- ³ Students who complete a four-hour course should consult with an advisor to have the additional hour applied toward the one-hour transferable elective.
- ⁴ Liberal arts electives: ANTH (not 2301, 2101), GEOG (not 1301), HIST, HUMA, PHIL (not 2303), PSYC (not 2317), SOCI, or TECA 1354.
- ⁵ Consult with an advisor to select an appropriate elective.

**Associate of Arts in
 GOVERNMENT
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
XXXX 1411 ¹	Beginning Foreign Language OR	
SPAN 2313	Spanish for Native/ Heritage Speakers I	3-4
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
Semester Total		15-16
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST 1302	United States History II	3
XXXX 1412 ¹	Beginning Foreign Language OR	
SPAN 2313	Spanish for Native/Heritage Speakers I	3-4
GOVT 2304	Introduction to Political Science	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
Semester Total		15-16
SECOND YEAR		
First Semester - Fall		
XXXX #3## ²	Language, Philosophy, & Culture Elective	3
XXXX #3## ³	Liberal Arts Elective	3
XXXX 2311 ¹	Intermediate Foreign Language I	3
GOVT 2305	Federal Government	3
XXXX #3## ²	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ³	Liberal Arts Elective	3
XXXX 2312 ¹	Intermediate Foreign Language II	3
GOVT 2306	Texas Government	3
XXXX #3## ²	Creative Arts Elective	3
XXXX #3## ²	Life & Physical Sciences Elective	3
	Semester Total	15
	Total Minimum Credits for the AA Degree	60

¹ All four foreign language courses must be in one language: French or Spanish

² A list of electives appears in the Core Curriculum section of this catalog.

³ Liberal Arts electives: Choose any Core Curriculum course from Creative Arts, Language, Philosophy, & Culture, or Social & Behavioral Sciences.

History Options: HIST 1301, 1302, 2301, 2327, 2328, 2381, 2382, and 2381.

**Associate of Arts in
 HISTORY
 Field of Study Curriculum - Academic Track**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
MATH 1332	Contemporary Mathematics	3
XXXX #3## ¹	Creative Arts Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST 1302	United States History II	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ²	Transferable Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
HIST 23##	History Elective	3
XXXX 1411 ³	Beginning Foreign Language	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		14
Second Semester - Spring		
HIST 23## ⁴	History Elective	3
HIST 23## ⁵	United States History Elective	3
GOVT 2306	Texas Government	3

XXXX 1412 ³	Beginning Foreign Language I	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
	Semester Total	16
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Creative Arts elective recommendations: HUMA 1301; ARTS 1301, 1303, or 1304.

Life & Physical Sciences recommendations: ANTH 2301, BIOL 1308, GEOG 1301, GEOL 1301 or 1305.

Students who successfully complete a four-hour Life & Physical Sciences elective should consult with an advisor to have the additional hour applied toward the one-hour transferable elective requirement.

² Consult with an advisor to select an appropriate elective.

³ All four foreign language courses must be in one language: French or Spanish.

⁴ HIST 2311, 2312, 2321, or 2322.

⁵ HIST 2301, 2327, 2328, 2381, or 2382

**Associate of Arts in
 HISTORY
 Field of Study Curriculum - Teacher Certification Track**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
MATH 1332	Contemporary Mathematics	3
EDUC 1301	Introduction to the Teaching Profession	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST 1302	United States History II	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
HIST 2301	Texas History	3
XXXX #3## ¹	Creative Arts Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
HIST 2321	World Civilizations I	3
XXXX 1411 ³	Beginning Foreign Language	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		14
Second Semester - Spring		
EDUC 2301	Introduction to Special Populations	3
HIST 2322	World Civilizations II	3
GOVT 2306	Texas Government	3
XXXX 1412 ³	Beginning Foreign Language I	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		16
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Creative Arts elective recommendations: HUMA 1301; ARTS 1301, 1303, or 1304.

Life & Physical Sciences recommendations: ANTH 2301, BIOL 1308, GEOG 1301, GEOL 1301 or 1305.

Students who successfully complete a four-hour Life & Physical Sciences elective should consult with an advisor to have the additional hour applied toward the one-hour transferable elective requirement.

² Consult with an advisor to select an appropriate elective.

³ All four foreign language courses must be in one language: French or Spanish.

**Associate of Arts in
 INTERDISCIPLINARY STUDIES**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
Mexican-American/Latino Studies Specialization - Field of Study Curriculum		
HIST 2327	Mexican-American History I	3
SPAN 1411 ¹	Beginning Spanish IOR	
SPAN 2313 ²	Spanish for Native/Heritage Speakers I	3
All Other Specializations		
HIST 1301	United States History I	3
XXXX 1411 ¹	Beginning Foreign Language	4
	Semester Total	16
Second Semester - Spring		
ENGL 1302	Composition II	3
Africana/African American Studies Specialization		
ARTS 1304	Art History II OR	
HUMA 1301	Introduction to Humanities I	3
HIST 2381	African-American History	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language I	4
Global Studies Specialization		
ARTS 1304	Art History II OR	
HUMA 1301	Introduction to Humanities I	3
HIST 1302	United States History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language I	4
Mexican-American/Latino Studies Specialization - Field of Study Curriculum		
HUMA 1311	Mexican American Fine Arts Appreciation OR	
HUMA 1301	Introduction to Humanities I	3
HIST 2328	Mexican-American History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
SPAN 1412 ¹	Beginning Spanish I IOR	
SPAN 2315 ²	Spanish for Native/Heritage Speakers II	3

Women & Gender Studies Specialization

ARTS 1304	Art History II OR	
HUMA 1301	Introduction to Humanities I	3
HIST 1302	United States History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language I	4
	Semester Total	16

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
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Africana/African American Studies Specialization

ENGL 2328	American Literature II OR	
ENGL 2341	Forms of Literature	3
SOCI 1306	Social Problems	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 2311 ¹	Intermediate Foreign Language I	3

Global Studies Specialization

ENGL 2332	World Literature I OR	
ENGL 2333	World Literature II	3
GEOG 1303	World Regional Geography	3
GEOG 1301	Physical Geography	3
XXXX 2311 ¹	Intermediate Foreign Language I	3

Mexican-American/Latino Studies Specialization - Field of Study Curriculum

ANTH 2351	Cultural Anthropology	3
ENGL 2351	Mexican-American Literature	3
SPAN 2311 ¹	Intermediate Spanish I	3
XXXX #3## ³	Life & Physical Sciences Elective	3

Women & Gender Studies Specialization

ENGL 2341	Forms of Literature OR	
HUMA 2319	American Minority Studies	3
SOCI 1306	Social Problems	3
XXXX 2311 ¹	Intermediate Foreign Language I	3
XXXX #3## ³	Life & Physical Sciences Elective	3
	Semester Total	15

Second Semester - Spring

GOVT 2306	Texas Government	3
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Africana/African American Studies Specialization

HUMA 2319	American Minority Studies	3
HUMA 2323	World Cultures	3
SOCI 2319	Minority Studies	3
XXXX 2312 ¹	Intermediate Foreign Language II	3

Global Studies Specialization

ANTH 2351	Cultural Anthropology	3
HIST 2322	World Civilizations II	3
PHIL 1304	Introduction to World Religions OR	
PHIL 2316	Classical Philosophy OR	
HUMA 2323	World Cultures	3
XXXX 2312 ¹	Intermediate Foreign Language II	3

Mexican-American/Latino Studies Specialization - Field of Study Curriculum

HUMA 1305	Introduction to Mexican American Studies	3
HUMA 2319	American Minority Studies	3
HUMA 2323	World Cultures OR	
GOVT 2311 ⁴	Mexican-American & Latinx Politics	3
SPAN 2312 ¹	Intermediate Spanish II	3

Women & Gender Studies Specialization

HUMA 2319	American Minority Studies	3
PSYC 2306	Human Sexuality	3
SOCI 2301	Marriage & the Family	3
XXXX 2312 ¹	Intermediate Foreign Language II	3

Semester Total **15**

Total Minimum Credits for the AA Degree **60**

- ¹ All four foreign language courses must be in one language: French or Spanish.
- ² Students who select Spanish for Native/Heritage Speakers I and II will still meet the 60-hour degree requirement.
- ³ A list of electives appears in the Core Curriculum section of this catalog.
- ⁴ Inclusion in Field of Study

Certificate in		
AFRICANA/AFRICAN AMERICAN STUDIES *		SCH
Choose two of the following courses:		6
ENGL 1302	Composition II - Africana/Af.-Am. Studies	
GOVT 2305	Federal Government - Africana/Af.-Am. Studies	
HIST 2381	African-American History	
Choose one course from two of the following categories:		6
Language, Philosophy, & Culture		
HUMA 2319	American Minority Studies OR	
HUMA 2323	World Cultures (Africana/Af.-Am. Studies)	3
Creative Arts		
ARTS 1304	Art History II OR	
HUMA 1301	Introduction to Humanities I	3
Social & Behavioral Sciences		
SOCI 1306	Social Problems	3
Total Minimum Credits for the Certificate		12
	<i>* Institutional Certificate</i>	

Certificate in		
GLOBAL STUDIES		SCH
HUMA 1301	Introduction to Humanities I	3
Choose one of the following courses:		3
ENGL 2332	World Literature I	
ENGL 2333	World Literature II	
HUMA 2323	World Cultures	
PHIL 2316	Classical Philosophy	
PHIL 1304	Introduction to World Religions	
Choose one course from two of the following categories:		6
Social & Behavioral Sciences		
ANTH 2351	Cultural Anthropology OR	
GEOG 1303	World Regional Geography	3
Component Area Option		
XXXX #4## ¹	Beginning Foreign Language I or II OR	
XXXX #3## ¹	Spanish for Native/Heritage Speakers I or II OR	
XXXX #3## ¹	Intermediate Foreign Language I or II	3-4
Total Minimum Credits for the Certificate		12

¹ Consult with an advisor to select an appropriate elective.

* Institutional Certificate

Certificate in		
Mexican-American/Latino Studies		SCH
Field of Study Curriculum		
Choose one of the following courses:		3
HUMA 1305	Introduction to Mexican American Studies	
ENGL 2351	Mexican-American Literature	
Choose one of the following courses:		3
HIST 2327	Mexican-American History I	
HIST 2328	Mexican-American History II	
Choose one course from two of the following categories:		6
Creative Arts		
HUMA 1301	Introduction to Humanities I	3
HUMA 1311	Mexican American Fine Arts Appreciation	3
Government/Political Science		
GOVT 2305	Federal Government OR	
GOVT 2306	Texas Government	3
GOVT 2311	Mexican-American & Latino Politics	3
Component Area Option		
HUMA 2323	World Cultures - Mesoamerica	3
SPAN 1411	Beginning Spanish OR	
SPAN 1412	Beginning Spanish I	3
Total Minimum Credits for the Certificate		12
	<i>* Institutional Certificate</i>	

Certificate in		
WOMEN & GENDER STUDIES		SCH
ENGL 1302	Composition II - Women/Gender Issues	3
HIST 1302	United States History II	3
Choose one course from two of the following categories:		6
Language, Philosophy, & Culture		
HUMA 2319	American Minority Studies OR	
Creative Arts		
ARTS 1304	Art History II OR	
HUMA 1301	Introduction to Humanities I	3
Social & Behavioral Sciences		
SOCI 1306	Social Problems (Women/Gender Issues)	3
Total Minimum Credits for the Certificate		12
* <i>Institutional Certificate</i>		

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Approved Mathematics Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
XXXX #3## ¹	Component Area Option Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15
Total Minimum Credits for the AA Degree		60

- ¹ A list of electives appears in the Core Curriculum section of this catalog.
- ² Consult with an advisor to select an appropriate MATH course.
- ³ Consult with an advisor to select an appropriate elective.

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES**
Economics Major - BA and BS Field of Study Curriculum Tracks

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ECON 2301	Principles of Macroeconomics	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
BA Track:		
MATH 1325	Calculus for Business & Social Sciences OR	
MATH 2413	Calculus I	3-4
BS Track:		
MATH 2413	Calculus I	3-4
Semester Total		15-16
Second Semester - Spring		
ECON 2302	Principles of Microeconomics	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
BUSI 2305	Business Statistics OR	
MATH 1342	Elementary Statistical Methods	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
XXXX #3## ²	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
XXXX #3##	Transferable Elective	3
BA Track:		
XXXX 1411 ²	Beginning Foreign Language OR	
SPAN 2313 ²	Spanish for Native/Heritage Speakers I	3
XXXX #3## ²	Life & Physical Sciences Elective	3
BS Track:		
XXXX #4## ²	Life & Physical Sciences Elective with Lab	4
XXXX #2##	Transferable Elective	2

	Semester Total	15
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ²	Creative Arts Elective	3
XXXX #3##	Transferable Elective	3
BA Track:		
XXXX 1412 ²	Beginning Foreign Language I O R	
SPAN 2315 ²	Spanish for Native/Heritage Speakers II	3
XXXX #3## ²	Life & Physical Sciences Elective	3
BS Track:		
XXXX #4## ²	Life & Physical Sciences Elective with Lab	4
XXXX #2##	Transferable Elective	2
	Semester Total	15
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Intermediate Foreign Language courses. All foreign language courses must be in the same language.

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES**

Geography Major

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
GEOG 1301	Physical Geography	3
MATH #3## ¹	Approved Mathematics Elective	3
XXXX 1411 ²	Beginning Foreign Language	4
Semester Total		16
Second Semester - Spring		
ENGL 1302	Composition II	3
GEOG 1302	Human Geography	3
XXXX 1412 ²	Beginning Foreign Language I	4
ANTH 2301	Physical Anthropology OR	3
XXXX #3##	Life & Physical Sciences Elective	
Semester Total		13
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
XXXX #3## ³	Language, Philosophy, & Culture Elective	3
HIST #3## ³	American History Elective	3
XXXX 2311 ²	Intermediate Foreign Language I	3
GEOG 1303	World Regional Geography	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
HIST #3## ³	American History Elective	3
XXXX #3## ³	Creative Arts Elective	3
XXXX 2312 ²	Intermediate Foreign Language II	3
XXXX #4## ³	Life & Physical Sciences Elective with Lab	4
Semester Total		16
Total Minimum Credits for the AA Degree		60

- ¹ Choose one course from MATH 1332, 1342, 1442, 2412, or 2413.
- ² All foreign language courses must be in the same language: French or Spanish.
- ³ A list of electives appears in the Core Curriculum section of this catalog. The two-course sequence of Life & Physical Science electives must be in the same discipline, chosen from PHYS, BIOL, CHEM, or GEOL.

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES
 Kinesiology & Exercise Science Major**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective OR	
GOVT 2305	Federal Government	3
MATH 1332	Contemporary Mathematics	3
KINE 1301	Foundations of Kinesiology	3
KINE #1## ²	Activity Course	1
Semester Total		16
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective OR	
GOVT 2306	Texas Government	3
PSYC 2301	General Psychology	3
KINE 1306	First Aid OR	
KINE 2356	Care & Prevention of Athletic Injuries	3
KINE 1338	Concepts of Physical Fitness	3
KINE #1## ²	Activity Course	1
Semester Total		16
SECOND YEAR		
First Semester - Fall		
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
XXXX #3## ¹	Creative Arts Elective	3
GOVT 2305	Federal Government OR	
HIST #3##	American History Elective	3
KINE 1304	Personal/Community Health	3
KINE #1## ²	Activity Course	1
Semester Total		14

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
GOVT 2306	Texas Government OR	
HIST #3##	American History Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
KINE 1346	Drug Use & Abuse OR	
SOCI 1306	Social Problems	3
KINE #1## ²	Activity Course	1
	Semester Total	14
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Activity courses include KINE 1100 – 1150 or 2100 – 2150

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES
 Philosophy Major**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3##	United States History	3
MATH #3##	College Level Math	3
PHIL 1301	Introduction to Philosophy	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3##	United States History	3
PHIL 2306	Introduction to Ethics	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
PHIL 2316	Classical Philosophy	3
GOVT 2305	Federal Government	3
LANG 1311	Beginning Foreign Language OR	
LANG 1411	Foreign Language I	3-4
XXXX #3## ¹	Life & Physical Sciences Elective	3
PHIL 2303	Introduction to Formal Logic	3
Semester Total		15-16
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
LANG 1312	Beginning Foreign Language IOR	
LANG 1412	Foreign Language II	3-4
PHIL 2307	Introduction to Social & Political Philosophy	3
PHIL 1304	Introduction to World Religions	3
Semester Total		15-16
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**Associate of Arts in
 MULTIDISCIPLINARY STUDIES
 Sociology Major - Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1314	College Algebra OR	
MATH 1342	Elementary Statistical Methods	3
SOCI 1301	Introduction to Sociology	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
SOCI 1306	Social Problems	3
PSYC 2301	General Psychology	3
ANTH 23xx ²	Anthropology Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
SOCI 2301	Marriage & the Family	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective (recommend ANTH 2302 Physical Anthropology)	3
XXXX #3##	Transferable Elective	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
SOCI 2319	Minority Studies	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective (recommend GEOG 1301 Physical Geography)	3
XXXX #3##	Transferable Elective	3
Semester Total		15
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Choose one course from ANTH 2302, 2346 or 2351

**Associate of Arts in
 MUSIC
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MUAP 11## ¹	Applied Music Lesson	1
MUAP 11## ¹	Applied Music Studio	1
MUSI 1311	Music Theory I	3
MUSI 1116	Sight Singing & Ear Training	1
MUSI 1181	Piano Class I	1
MUEN 11##	Ensemble	1
Semester Total		14
Second Semester - Spring		
ENGL 1302	Composition II	3
MUAP 11## ¹	Applied Music Lesson	1
MUAP 11## ¹	Applied Music Studio	1
MUSI 1312	Music Theory II	3
MUSI 1117	Sight Singing & Ear Training I	1
MUSI 1182	Piano Class II	1
MUEN 11## ¹	Ensemble	1
MUEN 11## ¹	Ensemble OR	
MUAP 11## ¹	Improvisation OR	
MUSI #1## ¹	Diction/IPA for Singers	1
GOVT 2305	Federal Government	3
Semester Total		15
Third Semester - Summer		
HIST #3## ²	American History Elective	3
Semester Total		3
SECOND YEAR		
First Semester - Fall		
MUAP 21## ¹	Applied Music Lesson	1
MUAP 21## ¹	Applied Music Studio	1
MUSI 2311	Music Theory III	3
MUSI 2116	Sight Singing & Ear Training II	1
MUSI 2181	Piano Class III	1
MUEN 11## ¹	Ensemble	1
GOVT 2306	Texas Government	3
XXXX #3## ²	Life & Physical Sciences Elective OR	
XXXX #3## ²	Mathematics Elective	3
Semester Total		14

Second Semester - Spring

MUAP 21## ¹	Applied Music Lesson	1
MUAP 21## ¹	Applied Music Studio	1
MUSI 2312	Music Theory IV	3
MUSI 2117	Sight Singing & Ear Training I\	1
MUSI 2182	Piano Class IV	1
MUEN 11## ¹	Ensemble	1
MUSI 1307	Music Literature	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
	Semester Total	14
	Total Minimum Credits for the AA Degree	60

- ¹ Consult with an advisor to select an appropriate elective.
² A list of electives appears in the Core Curriculum section of this catalog.
 Consult with advisor regarding Core completion

**Associate of Arts in
 STUDIO ART**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
ARTS 1311	Design I (2-Dimensional Design)	3
ARTS 1316	Drawing I	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
MATH #3## ²	Mathematics Elective	3
HIST #3## ¹	American History Elective	3
ARTS 1303	Art History I	3
ARTS 1312	Design II (3-Dimensional Design)	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
GOVT 2305	Federal Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
ARTS 1304	Art History II	3
ARTS 1317	Drawing II	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
ARTS #3## ³	3-D Studio Elective	3
ARTS #3## ⁴	2-D Studio Elective	3
Semester Total		15
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Math electives: MATH 1314, 1324, 1332, or 1342.

³ 3-D Studio electives: ARTS 2311 (3-D), 2326, 2341, 2346, 2347.

⁴ 2-D Studio electives: ARTS 2311 (2-D), 2313, 2316, 2317, 2323, 2333, 2348, 2356, 2357, 2366.

**Associate of Arts in
 TEACHING**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
BIOL 1308	Biology for Non-Science Majors I (Lecture)	3
BIOL 1108	Biology for Non-Science Majors I (Lab)	1
EDUC 1301	Introduction to the Teaching Profession	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
Semester Total		16
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST 1302	United States History II OR	
HIST 2301	Texas History	3
MATH 1314	College Algebra OR	
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
SPCH 1315	Public Speaking	3
CHEM 1405	Introductory Chemistry I (Lecture & Lab) OR	
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		16
SECOND YEAR		
First Semester - Fall		
EDUC 2301	Introduction to Special Populations	3
ENGL 23## ¹	English Literature Elective	3
GOVT 2305	Federal Government	3
MATH 1350	Mathematics for Teachers I	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
MATH 1351	Mathematics for Teachers II	3
XXXX #3## ³	Creative Arts Elective	3
XXXX #4## ⁴	Physical Lab Science Elective	4
Semester Total		13
Total Minimum Credits for the AAT Degree		60
¹ ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2341 ² GEOG 1303; PSYC 2301; or TECA 1354. ³ ARTS 1301, 1303, 1304; DANC 1305, 2303; DRAM 1310, 2361, 2366; HUMA 1301; MUSI 1306, 1307, 1310. ⁴ ANTH 2301 & 2101; ASTR 1403 or 1404; GEOL 1403 or 1404; or PHYS 1401 or higher.		

**Associate of Arts in
 WORLD LANGUAGES**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
CHIN 1411 ²	Beginning Chinese IOR	
FREN 1411 ²	Beginning French IOR	
SPAN 1411 ²	Beginning Spanish IOR	
SPAN2313	Spanish for Native/Heritage Speakers I	3-4
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
Semester Total		15-16
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
CHIN 1412 ²	Beginning Chinese IOR	
FREN 1412 ²	Beginning French IOR	
SPAN 1412 ²	Beginning Spanish IOR	
Span 2315	Spanish for Native/Heritage Speakers II	3-4
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		15-16
SECOND YEAR		
First Semester - Fall		
CHIN 2311 ²	Intermediate Chinese I OR	
FREN 2311 ²	Intermediate French I OR	
SPAN 2311 ²	Intermediate Spanish I	3
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

CHIN 2312 ²	Intermediate Chinese II OR	
FREN 2312 ²	Intermediate French II OR	
SPAN 2312 ²	Intermediate Spanish II	3
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
	Semester Total	15
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² All four foreign language courses must be in one language: French, Spanish, or Chinese

Associate in Science

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Transferable Elective	3
MATH #3## ³	Mathematics Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
MATH #3## ³	Mathematics Elective	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
MATH #3## ³	Mathematics Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ³	Component Area Option Elective	3
XXXX #3## ²	Transferable Elective	3
XXXX #4## ¹	Life & Physical Sciences Elective with Lab	4
XXXX #2## ³	Transferable Elective	2
Semester Total		15
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate MATH course.

³ Consult with an advisor to select an appropriate elective.

**Associate of Science in
 BIOLOGY**

Biology Majors & Pre-Medical Programs

Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
MATH 2412	Pre-Calculus Math	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		18
Second Semester - Spring		
ENGL 1302	Composition II	3
BIOL 1407	Biology for Science Majors II (Lecture & Lab)	4
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
Semester Total		15
SECOND YEAR		
First Semester - Fall		
HIST #3## ²	American History Elective	3
GOVT 2305	Federal Government OR	
GOVT 2306	Texas Government	3
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		14
Second Semester - Spring		
BIOL 2421	Microbiology for Science Majors	4
HIST #3## ²	American History Elective	3
CHEM 2425	Organic Chemistry II (Lecture & Lab)	3
PHYS 1402	College Physics II (Lecture & Lab)	3
Semester Total		13
Total Minimum Credits for the AS Degree		60

¹ BIOL 2406, 2416, 2421 or 2320 Lecture & 2120 Lab

² Consult with an advisor to select an appropriate elective.

Consult with advisor regarding Core completior

The Biology Majors & Pre-medical Programs track includes the full FOSC, but note that GOVT , Language, Philosophy & Culture Elective, Creative Arts Elective, & Social/ Behavioral Sciences.

**Associate of Science in
 BIOLOGY**

Health Sciences Professions

Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		14
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
PSYC 2301	General Psychology	3
Pre-Nursing Specialization		
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
MATH 1342	Elementary Statistical Methods OR	
PSYC 2317	Statistical Methods in Psychology	3
Pre-Radiologic Sciences Specialization		
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
MATH 2412	Pre-Calculus Math OR	
MATH 2413	Calculus I	4
Pre-Clinical Laboratory Services Specialization		
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 1314	College Algebra	3
Semester Total		16-17
SECOND YEAR		
First Semester - Fall		
HIST #3## ¹	American History Elective	3
GOVT 2305	Federal Government	3
PSYC 2314	Lifespan Growth & Development	3
Pre-Nursing Specialization		
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
BIOL 1322	Nutrition & Diet Therapy	3

Pre-Radiologic Sciences Specialization

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
PHYS 1401	College Physics I (Lecture & Lab)	4

Pre-Clinical Laboratory Services Specialization

BIOL 1407	Biology for Science Majors II (Lecture & Lab) OR	
BIOL 2416	Genetics (Lecture & Lab)	4
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
Semester Total		16-17

Second Semester - Spring

Pre-Nursing Specialization

BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3
XXXX #1## ²	Transferable Elective	1

Pre-Radiologic Sciences Specialization

PHYS 1402	College Physics II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3

Pre-Clinical Laboratory Services Specialization

CHEM 2425	Organic Chemistry II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		13-14

Total Minimum Credits for the AS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

The Health Sciences track includes the full FOSC, but student must take MATH 1342 instead of PSYC 2317.

**Associate of Science in
 CHEMISTRY**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ³	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		17
Second Semester - Spring		
ENGL 1302	Composition II	3
HIST #3## ³	American History Elective	3
MATH 2414	Calculus II	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		17
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
PHYS 2325	University Physics I (Lecture)	3
Semester Total		13
Second Semester - Spring		
XXXX #3## ¹	Creative Arts Elective	3
GOVT 2306	Texas Government	3
CHEM 2425	Organic Chemistry II (Lecture & Lab)	4
PHYS 2326	University Physics II (Lecture)	3
Semester Total		13
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² PHYS 2125 & PHYS 2126 required for Transfer Specialization has 62 semester credit hours. Note: Universities require the lab.

³ Consult with an advisor to select an appropriate elective.

**Associate of Science in
 COMPUTER SCIENCE
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 2412	Pre-Calculus Math	4
COSC 1436	Programming Fundamentals I	4
HIST #3## ¹	American History Elective	3
Semester Total		17
Second Semester - Spring		
ENGL 1302	Composition II	3
MATH 2413	Calculus I	4
COSC 1437	Programming Fundamentals II	4
HIST #3## ¹	American History Elective	3
Semester Total		14
SECOND YEAR		
First Semester - Fall		
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
COSC 2436	Programming Fundamentals III	4
GOVT 2305	Federal Government	3
Semester Total		15
Second Semester - Spring		
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
COSC 2425	Computer Organization	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
GOVT 2306	Texas Government	3
Semester Total		14
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.
 Consult with advisor regarding Core completion

**Associate of Science in
 Criminal Justice - Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
MATH 1342	Elementary Statistical Methods	3
CRIJ 1301	Introduction to Criminal Justice	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST 1302	United States History II	3
PSYC 2317	Statistical Methods in Psychology	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
CRIJ 1306	The Courts and Criminal Procedure	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
SOCI 1301	Introduction to Sociology	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
CRIJ 2313	Correctional Systems & Practices	3
Semester Total		15
Second Semester - Spring		
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
CRIJ 2328	Police Systems & Practices	3
CRIJ 1307	Crime in America	3
CRIJ 1310	Fundamentals of Criminal Law	3
Semester Total		15
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**Associate of Science in
 ENGINEERING SCIENCE
 Chemical Engineering- Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		16
Second Semester - Spring		
CHEM 1412	General Chemistry II (Lecture & Lab)	4
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
Semester Total		15

**SECOND YEAR
 Chemical Engineering Specialization**

First Semester - Fall		
ENGR 2304	Programming for Engineers	3
MATH 2415	Calculus III	4
CHEM 2323	Organic Chemistry I (Lecture)	3
CHEM 2123	Organic Chemistry I (Lab)	1
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
Semester Total		18
Second Semester - Spring		
CHEM 2325	Organic Chemistry II (Lecture)	3
CHEM 2125	Organic Chemistry II (Lab)	1
ENGR 2333	Elementary Chemical Engineering	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		11
Total Minimum Credits for the ASES Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Consult with advisor regarding Core completion

ENGINEERING SCIENCE

Civil / Environmental Engineering- Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
Semester Total		16
Second Semester - Spring		
ENGR 1204	Engineering Graphics	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
Semester Total		16
SECOND YEAR		
Civil Engineering Specialization		
First Semester - Fall		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17
Second Semester - Spring		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
ENGR 2302	Engineering Mechanics - Dynamic	3
XXXX #1## ²	Transferable Elective	1
Semester Total		11
Total Minimum Credits for the ASES Degree		60
¹ A list of electives appears in the Core Curriculum section of this catalog. ² Consult with an advisor to select an appropriate elective. Consult with advisor regarding Core completion		

ENGINEERING SCIENCE

Electrical /Computer Engineering- Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
Semester Total		16
Second Semester - Spring		
ENGR 1204	Engineering Graphics	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
Semester Total		16
SECOND YEAR		
Electrical Engineering Specialization		
First Semester - Fall		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17
Second Semester - Spring		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
COSC 1436	Programming Fundamentals I OR	
COSC 1420	C Programming	4
Semester Total		11
Total Minimum Credits for the ASES Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.
 Consult with advisor regarding Core completion

ENGINEERING SCIENCE
Mechanical Engineering- Field of Study Curriculum

FIRST YEAR		SCH
First Semester - Fall		
ENGR 1201	Introduction to Engineering	2
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry I (Lecture & Lab)	4
Semester Total		16
Second Semester - Spring		
ENGR 1204	Engineering Graphics	2
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
Semester Total		16

SECOND YEAR
Mechanical Engineering Specialization

First Semester - Fall		
ENGR 2304	Programming for Engineers	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17
Second Semester - Spring		
ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
ENGR 2302	Engineering Mechanics - Dynamic	3
XXXX #1## ²	Transferable Elective	1
Semester Total		11
Total Minimum Credits for the ASES Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Consult with advisor regarding Core completion

**Associate of Science in
 GEOLOGY**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		13
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2413	Calculus I	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		17
SECOND YEAR		
First Semester - Fall		
MATH 2414	Calculus II	4
GOVT 2305	Federal Government	3
PHYS 2325	University Physics I (Lecture)	3
GEOL 1403	Physical Geology (Lecture & Lab)	4
Semester Total		14
Second Semester - Spring		
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2306	Texas Government	3
GEOL 1404	Historical Geology (Lecture & Lab)	4
PHYS 2326	University Physics II (Lecture)	3
Semester Total		16
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² PHYS 2125 & PHYS 2126 required for Transfer Specialization has 62 semester credit hours. Note: Universities require the lab.

**Associate of Science in
 MATHEMATICS
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
MATH 2413	Calculus I	4
Semester Total		14
Second Semester - Spring		
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2414	Calculus II	4
HIST #3## ¹	American History Elective	3
XXXX #3## ²	Programming Elective	3
Semester Total		17
SECOND YEAR		
First Semester - Fall		
MATH 2415	Calculus III	4
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
Semester Total		14
Second Semester - Spring		
GOVT 2306	Texas Government	3
HIST #3## ¹	American History Elective	3
XXXX #3## ³	Advanced Mathematics Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
PHYS 2326 ⁴	University Physics II (Lecture)	3
Semester Total		15
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Choose from ENGR 2304 or COSC 1436

³ Choose from MATH 2318 or 2320

⁴ PHYS 2126 required for Transfer Specialization which requires 62 semester credit hours. Note: Universities require the lab.

**Associate of Science in
 PHYSICS**

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
MATH 2412	Pre-Calculus Math	4
HIST #3## ¹	American History Elective	3
Semester Total		17
Second Semester - Spring		
ENGL 1302	Composition II	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2413	Calculus I	4
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17
SECOND YEAR		
First Semester - Fall		
MATH 2414	Calculus II	4
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
PHYS 2325 ²	University Physics I (Lecture)	3
Semester Total		13
Second Semester - Spring		
GOVT 2306	Texas Government	3
MATH 2415	Calculus III	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
PHYS 2326 ²	University Physics II (Lecture)	3
Semester Total		13
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² PHYS 2125 & PHYS 2126 required for Transfer Specialization which requires 62 semester credit hours. Note: Universities require the lab.

**Associate of Science in
 PSYCHOLOGY
 Field of Study Curriculum**

FIRST YEAR		SCH
First Semester		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
PSYC 2301	General Psychology	3
MATH 1314	College Algebra	3
XXXX #1## ¹	Transferable Elective	1
Semester Total		16
Second Semester		
ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
PHIL 1301	Introduction to Philosophy	3
PSYC 2314	Lifespan Growth & Development	3
PSYC 2317	Statistical Methods in Psychology	3
Semester Total		15
SECOND YEAR		
First Semester		
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
XXXX #3## ¹	Creative Arts Elective	3
GOVT 2305	Federal Government	3
PSYC 2319	Social Psychology	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		16
Second Semester		
BIOL 1407	Biology for Science Majors II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
PSYC 2320	Abnormal Psychology	3
PSYC 2330	Biological Psychology OR	
PSYC 2389	Academic Cooperative- Research	3
Semester Total		13
Total Minimum Credits for the AS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

2020-2021 Workforce Degrees and Certificates

ACCOUNTING

ACCOUNTING

SCH

Associate of Applied Science FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ACCT 2301	Principles of Financial Accounting	3
XXXX #3## ¹	Math/Natural Science Elective	3
ENGL 1301	Composition I	3
XXXX #3## ²	Computer Applications Elective	3
Semester Total		15

Second Semester - Spring

ACNT 2331	Internal Control & Auditing OR	
ACNT 1313	Computerized Accounting Applications	3
ACNT 1331	Federal Income Tax: Individual	3
ACCT 2302	Principles of Managerial Accounting	3
ACNT 1382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ACNT 2303	Intermediate Accounting I	3
ITSW 2334	Advanced Spreadsheets OR	
POFI 1349	Spreadsheets	3
ACNT 1347	Federal Income Tax for Partnerships & Corporations	3
PSYC 2301	General Psychology	3
ACNT 2382	Cooperative Education-Accounting Technology/Technician & Bookkeeping	3
Semester Total		15

Second Semester - Spring

BMGT 1327	Principles of Management	3
ECON 2301	Principles of Macroeconomics	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BUSG 2305	Business Law/Contracts	3
ACNT 2304	Intermediate Accounting II (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

ACCOUNTING

Certificate - Level 1

SCH

First Semester - Fall

ACNT 1313	Computerized Accounting Applications OR	
ACNT 2331	Internal Control & Auditing	3
ACNT 1331	Federal Income Tax: Individual	3
ACCT 2301	Principles of Financial Accounting	3
XXXX #3## ¹	Computer Applications Elective	3
	Semester Total	12

Second Semester - Spring

ACCT 2302	Principles of Managerial Accounting	3
ACNT 1347	Federal Income Tax for Partnerships & Corporations	3
ACNT 1382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
	Semester Total	9

Third Semester - Summer

ITSW 2334	Advanced Spreadsheets	3
ACNT 2382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
ACNT 2303	Intermediate Accounting I (Capstone)	3
ACNT 2309	Cost Accounting OR	
ACNT 1392	Special Topics in Accounting: Small Business Accounting	3
	Semester Total	12

Total Minimum Credits for the Level 1 Certificate

33

¹ Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

ACCOUNTING - PAYROLL SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

ACNT 1303	Introduction to Accounting I	3
POFI 1301	Computer Applications I OR	
ITSC 1309	Integrated Software Applications I	3
POFI 1349	Spreadsheets OR	
ITSW 2334	Advanced Spreadsheets	3
ACCT 2301	Principles of Financial Accounting	3
ACNT 1313	Computerized Accounting Applications	3
ACNT 1329	Payroll & Business Tax Accounting (Capstone)	3
	Semester Total	18
	Total Minimum Credits for the Level 1 Certificate	18

ACCOUNTING - FORENSIC ACCOUNTING & FRAUD EXAMINATION

Enhanced Skills Certificate

SCH

First Semester - Fall

ACNT 1305	Forensic Accounting	3
ACNT 1335	Accounting Ethics	3
ACNT 2331	Internal Control and Auditing	3
ACNT 1391	Special Topics in Accounting: Fraud Examination	3
	Semester Total	12
	Total Minimum Credits for the Enhanced Skills Certificate	12

APPLIED HORTICULTURE

APPLIED HORTICULTURE - LANDSCAPING OPERATIONS & MANAGEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
AGRI 1309	Computers in Agriculture	3
HALT 1324	Turfgrass Science & Management	3
HALT 1301	Principles of Horticulture	3
HALT 1325	Landscape Plant Material	3
Semester Total		15

Second Semester - Spring

HALT 1319	Landscape Construction	3
HALT 1331	Woody Plant Materials	3
HALT 1327	Horticultural Equipment Management	3
HALT 1322	Landscape Design	3
HALT 1351	Landscape Business Operations	3
Semester Total		15

Third Semester - Summer

SPNL 1291	Special Topics in Spanish Language & Literature	2
HALT 1380	Cooperative Education - Applied Horticulture/Horticultural Operations,	3
Semester Total		5

SECOND YEAR

First Semester - Fall

HALT 2331	Advanced Landscape Design	3
HALT 2315	Landscape Management (Capstone)	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

HALT 1491	Special Topics in Horticulture Services Operations & Management, General	4
HALT 2323	Horticultural Pest Control	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

ARTIFICIAL INTELLIGENCE (A.I.)

ARTIFICIAL INTELLIGENCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MATH1314	College Algebra	3
ENGL 1301	English Composition	3
XXXX #3## ¹	General Education Elective	3
ITAI 1370	Artificial Intelligence (A.I.) History, Theory & Platforms	3
Semester Total		15

Second Semester - Spring

COSC 1436	Programming Fundamentals I (Python)	4
ITAI 1371	Introduction to Machine Learning	3
ITAI 1372	Artificial Intelligence (A.I.) in Cybersecurity	3
ITAI 1378	Computer Vision for Artificial Intelligence (A.I.)	3
Semester Total		13

Third Semester - Summer

ITSC 1316	LINUX Installation & Configuration	3
ITNW 1313	Computer Virtualization	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ITAI 2374	Robot Operating System & Platforms in Artificial Intelligence (A.I.)	3
ITAI 2373	Natural Language Processing	3
ITAI 2372	Artificial Intelligence (A.I.) Applications & Case Histories	3
XXXX #3## ¹	Humanities / Fine Arts Elective	3
ITSE 1346	Database Design and Theory	3
Semester Total		15

Second Semester - Spring

PHIL 1301	Introduction to Philosophy	3
ITAI 2377	Data Science in Artificial Intelligence (A.I.)	3
ITAI 2376	Deep Learning in Artificial Intelligence (A.I.)	3
ITAI 2275	Cooperative Education - Artificial Intelligence (A.I.) OR	
ITAI 2277	Artificial Intelligence (A.I.) Resources & References (Capstone)	2
Semester Total		11

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

AUDIO RECORDING TECHNOLOGY

AUDIO RECORDING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
RTVB 1321	TV/Video Field Production	3
Semester Total		12

Second Semester - Spring

MUSC 1327	Audio Engineering I	3
MUSC 1323	Audio Electronics	3
XXXX #3## ¹	General Education Elective	3
MUSB 1305	Survey of the Music Business	3
Semester Total		12

Third Semester - Summer

MUSC 2427	Audio Engineering II	4
RTVB 1240	Audio/Radio Production Practices	2
Semester Total		6

SECOND YEAR

First Semester - Fall

MUSC 2447	Audio Engineering III	4
RTVB 2232	Audio/Radio Production Practices II	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Second Semester - Spring

MUSC 2448	Audio Engineering IV	4
MUSC 2201	Audio Engineering Practices	2
MUSC 1405	Live Sound I	4
RTVB 2282	Cooperative Education - Radio & Television Broadcasting Technology/Technician	2
Semester Total		12

Third Semester - Summer

RTVB 2343	Commercial Recording Techniques (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

AUDIO RECORDING TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
RTVB 1321	TV/Video Field Production	3
MUSB 1305	Survey of the Music Business	3
Semester Total		12

Second Semester - Spring

MUSC 1327	Audio Engineering I	3
MUSC 1323	Audio Electronics	3
MUSC 1405	Live Sound I	4
Semester Total		10

Third Semester - Summer

MUSC 2427	Audio Engineering II (Capstone)	4
RTVB 1240	Audio/Radio Production Practices	2
Semester Total		6

Total Minimum Credits for the Level 1 Certificate **28**

AUDIO RECORDING TECHNOLOGY - ELECTRONIC MUSIC PRODUCTION

Certificate - Level 1

SCH

First Semester - Fall

MUSB 1305	Survey of the Music Business	3
MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
MUSI 1181	Piano Class I OR	
MUAP 1169	Piano	1
MUSI 1303	Fundamentals of Music	3
	Semester Total	13

Second Semester - Spring

MUSC 1327	Audio Engineering I	3
MUSC 2355	MIDI II	3
MUSC 2433	Scoring for Video & Film	4
MUSI 1182	Piano Class II OR	
MUAP 1169	Piano	1
MUSC 1270	Fundamentals of Music Production	2
	Semester Total	13

Third Semester - Summer

MUSC 2345	Synthesis II	3
MUSC 1350	Remixing (Capstone)	3
	Semester Total	6

Total Minimum Credits for the Level 1 Certificate

32

AUTOMOTIVE TECHNOLOGY

AUTOMOTIVE TECHNOLOGY - TECHNICIAN

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
AUMT 1305	Introduction to Automotive Technology	3
AUMT 2328	Automotive Service	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
Semester Total		15

Second Semester - Spring

AUMT 1307	Automotive Electrical Systems	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2321	Automotive Electrical Diagnosis & Repair	3
AUMT 2317	Automotive Engine Performance Analysis I	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
AUMT 2313	Automotive Drive Train & Axles	3
AUMT 1306	Automotive Engine Removal & Installation	3
AUMT 2325	Automotive Automatic Transmission & Transaxle	3
AUMT 2334	Automotive Engine Performance Analysis II	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
AUMT 1319	Automotive Engine Repair	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
AUMT 2380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

AUTOMOTIVE TECHNOLOGY - TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 2328	Automotive Service	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
Semester Total		12

Second Semester - Spring

AUMT 1307	Automotive Electrical Systems	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2321	Automotive Electrical Diagnosis & Repair	3
AUMT 2317	Automotive Engine Performance Analysis I	3
Semester Total		12

Third Semester - Summer

AUMT 2313	Automotive Drive Train & Axles	3
AUMT 1306	Automotive Engine Removal & Installation	3
AUMT 2325	Automotive Automatic Transmission & Transaxle	3
AUMT 2334	Automotive Engine Performance Analysis II	3
AUMT 1380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate **39**

AUTOMOTIVE TECHNOLOGY - AUTOBODY/COLLISION REPAIR TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

ABDR 2441	Major Collision Repair & Panel Replacement	4
ABDR 1431	Basic Refinishing	4
ABDR 1307	Collision Repair Welding	3
ABDR 1215	Vehicle Trim & Hardware	2
	Semester Total	13

Second Semester - Spring

ABDR 1458	Intermediate Refinishing	4
ABDR 1441	Structural Analysis & Damage Repair I	4
ABDR 1442	Structural Analysis & Damage Repair II	4
	Semester Total	12

Third Semester - Summer

ABDR 2449	Advanced Refinishing	4
ABDR 2431	Structural Analysis & Damage Repair III	4
ABDR 1291	Special Topics in Auto/Automotive Body Repairer	2
ABDR 1280	Cooperative Education - Autobody/Collision & Repair Technology/Technician (Capstone)	2
	Semester Total	12

Total Minimum Credits for the Level 1 Certificate

37

AUTOMOTIVE TECHNOLOGY - MAINTENANCE & LIGHT REPAIR

Certificate - Level 1

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
AUMT 2310	Automotive Service Consultant	3
	Semester Total	15

Second Semester - Spring

AUMT 1345	Automotive Climate Control Systems	3
AUMT 2317	Automotive Engine Performance Analysis I	3
AUMT 2328	Automotive Service	3
AUMT 1380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3
	Semester Total	12

Total Minimum Credits for the Level 1 Certificate **27**

AUTOMOTIVE TECHNOLOGY - LIGHT AUTOMOTIVE MAINTENANCE TECHNICIAN

Occupational Skills Award **SCH**

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
AUMT 2328	Automotive Service	3
	Semester Total	12
Total Minimum Credits for the Occupational Skills Award		12

BANKING/FINANCE

BANKING/FINANCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ACCT 2301	Principles of Financial Accounting	3
BNKG 1303	Principles of Bank Operation	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
Semester Total		15

Second Semester - Spring

BNKG 1356	Analyzing Financial Statements	3
IBUS 2339	International Banking & Trade Finance	3
BUSG 1301	Introduction to Business	3
BNKG 1345	Consumer Lending OR	
BNKG 1349	Commercial Lending	3
BNKG 1380	Cooperative Education - Banking & Financial Support Services	3
Semester Total		15

SECOND YEAR

First Semester - Fall

BNKG 1343	Law & Banking	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BUSG 1303	Principles of Finance	3
BMGT 1327	Principles of Management	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
ECON 2302	Principles of Microeconomics	3
BNKG 2374	Financial Business Administration (Capstone)	3
ENGL 1301	Composition I	3
BNKG 2381	Cooperative Education - Banking & Financial Support Services	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

BANKING/FINANCE - FINANCIAL LENDING

Certificate - Level 1

SCH

First Semester - Fall

BNKG 1303	Principles of Bank Operation	3
HRPO 1311	Human Relations	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
BNKG 1345	Consumer Lending	3
Semester Total		15

Second Semester - Spring

BNKG 1356	Analyzing Financial Statements	3
BNKG 1349	Commercial Lending	3
IBUS 2339	International Banking & Trade Finance (Capstone)	3
BNKG 2380	Cooperative Education - Banking & Financial Support Services	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

27

BANKING/FINANCE - FINANCIAL OPERATIONS

Certificate - Level 1

SCH

First Semester - Fall

BNKG 1303	Principles of Bank Operation	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
HRPO 1311	Human Relations	3
Semester Total		12

Second Semester - Spring

ETWR 1302 ¹	Introduction to Technical Writing	3
BUSG 1303	Principles of Finance (Capstone)	3
BNKG 1380	Cooperative Education - Banking & Financial Support Services	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate

21

¹ ENGL 1301 is required for the Banking/Finance AAS Degree.

BANKING/FINANCE - TELLER TRAINING

Occupational Skills Award

SCH

First Semester - Fall

BNKG 1305	Teller Training	3
BNKG 1373	Teller Training Lab	3
BNKG 1351	Selling Bank/Financial Products & Services	3
Total Minimum Credits for the Occupational Skills Award		9

BUSINESS MANAGEMENT

BUSINESS MANAGEMENT - GENERAL BUSINESS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BUSI 1301	Business Principles	3
MATH 1324	Mathematics for Business & Social Sciences OR	
MATH 1314	College Algebra	3
BMGT 1327	Principles of Management	3
Semester Total		15

Second Semester - Spring

BMGT 1301	Supervision	3
HRPO 1311	Human Relations	3
MRKG 1311	Principles of Marketing	3
BUSI 1307	Personal Finance	3
BMGT 1341	Business Ethics	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
ECON 2302	Principles of Microeconomics	3
BUSG 2305	Business Law/Contracts	3
BCIS 1305	Business Computer Applications	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

HRPO 2301	Human Resources Management	3
HRPO 2307	Organizational Behavior	3
XXXX #3## ¹	General Education Elective	3
BUSG 2380	Cooperative Education - Business/Commerce, General	3
BUSG 2309	Small Business Management/Entrepreneurship (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS MANAGEMENT - GENERAL BUSINESS

Certificate - Level 1

SCH

First Semester - Fall

ETWR 1302 ¹	Introduction to Technical Writing OR	
ENGL 1301	Composition I	3
BUSI 1301	Business Principles	3
BUSI 1307	Personal Finance	3
BMGT 1327	Principles of Management	3
	Semester Total	12

Second Semester - Spring

BMGT 1301	Supervision	3
HRPO 1311	Human Relations	3
BUSG 2305	Business Law/Contracts	
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSG 1380	Cooperative Education - Business/Commerce, General (Capstone)	3
	Semester Total	15

Total Minimum Credits for the Level 1 Certificate **27**

¹ ETWR 1302 does not count toward the AAS degree in Business Management.

BUSINESS MANAGEMENT - ENTREPRENEURSHIP

Certificate - Level 1

SCH

First Semester - Fall

ETWR 1302	Introduction to Technical Writing	3
BUSI 1307	Personal Finance	3
BUSI 1301	Business Principles	3
BUSG 1307	Entrepreneurship & Economic Development	3
Semester Total		12

Second Semester - Spring

BUSG 2305	Business Law/Contracts	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
MRKG 1311	Principles of Marketing OR	
MRKG 2312	e-Commerce Marketing	3
BUSG 2309	Small Business Management/Entrepreneurship (Capstone)	3
BUSG 1380	Cooperative Education - Business/Commerce, General	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate **27**

BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BUSI 1301	Business Principles	3
HRPO 1305	Management & Labor Relations	3
BMGT 1327	Principles of Management	3
Semester Total		15

Second Semester - Spring

HRPO 1302	Human Resources Training & Development	3
HRPO 1311	Human Relations	3
MATH 1314	College Algebra OR	
MATH 1324	Mathematics for Business & Social Sciences	3
BMGT 1301	Supervision	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
Semester Total		15

SECOND YEAR

First Semester - Fall

HRPO 2306	Benefits & Compensation	3
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSG 2305	Business Law/Contracts	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BCIS 1305	Business Computer Applications	3
Semester Total		15

Second Semester - Spring

ECON 2302	Principles of Microeconomics	3
XXXX #3## ¹	General Education Elective	3
HRPO 2303	Employment Practices	3
HRPO 2301	Human Resources Management (Capstone)	3
BUSG 2380	Cooperative Education - Business/Commerce, General	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION

Certificate - Level 1		SCH
First Semester - Fall		
ETWR 1302	Introduction to Technical Writing	3
BUSI 1301	Business Principles	3
HRPO 1305	Management & Labor Relations	3
HRPO 1302	Human Resources Training & Development	3
Semester Total		12
Second Semester - Spring		
HRPO 2306	Benefits & Compensation	3
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSG 2305	Business Law/Contracts	3
HRPO 2301	Human Resources Management (Capstone)	3
BUSG 1380	Cooperative Education - Business/Commerce, General	3
Semester Total		15
Total Minimum Credits for the Level 1 Certificate		27

**BUSINESS MANAGEMENT - INSURANCE SPECIALIST/ASSOCIATE
Certificate - Level 1**

SCH

First Semester - Fall

BUSI 1301	Business Principles	3
INSR 1205	Personal Insurance	2
INSR 1209	Principles of Insurance	2
INSR 1301	Commercial Insurance	3
INSR 2340	Multiline Insurance Sales & Marketing	3
INSR 1217	Insurance Customer Service Representative	2
INSR 1191	Special Topics in Insurance (Capstone)	1

Semester Total **16**

Total Minimum Credits for the Level 1 Certificate **16**

BUSINESS TECHNOLOGY

BUSINESS TECHNOLOGY - GENERAL OFFICE ADMINISTRATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1329	Beginning Keyboarding	3
POFT 1370	Introduction to Office Technology	3
POFT 1325	Business Math Using Technology	3
Semester Total		15

Second Semester - Spring

ENGL 1301	Composition I	3
POFT 1319	Records & Information Management I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
POFT 2301	Intermediate Keyboarding	3
POFI 1341	Computer Applications II	3
Semester Total		15

SECOND YEAR

First Semester - Fall

POFT 1345	Shorthand/Notetaking I	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
BMGT 1325	Office Management	3
POFI 1349	Spreadsheets	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
Semester Total		15

Second Semester - Spring

POFT 2331	Administrative Project Solutions (Capstone)	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
XXXX #3## ¹	Math/Natural Science Elective	3
PSYC 2301	General Psychology	3
ECON 1301	Introduction to Economics	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS TECHNOLOGY - GENERAL OFFICE ADMINISTRATION

Certificate - Level 1

SCH

First Semester - Fall

POFI 1301 Computer Applications I 3

POFT 1325 Business Math Using Technology 3

POFT 1329 Beginning Keyboarding 3

Semester Total 9

Second Semester - Spring

POFT 1319 Records & Information Management I 3

POFI 1341 Computer Applications II 3

POFT 1370 Introduction to Office Technology 3

POFT 2301 Intermediate Keyboarding (Capstone) 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 21

BUSINESS TECHNOLOGY - HUMAN RESOURCES/PEOPLESOFT SPECIALIZATION

Certificate - Level 1 **SCH**

First Semester - Fall

POFI 1301	Computer Applications I	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFT 1329	Beginning Keyboarding	3
BMGT 2310	Financial Management	3
BMGT 2331	Principles of Quality Management	3
Semester Total		12

Second Semester - Spring

BMGT 2305	Advanced Communications in Management	3
POFI 1341	Computer Applications II	3
BMGT 1371	Intermediate HR/PeopleSoft Applications	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate **27**

BUSINESS TECHNOLOGY - LEGAL OFFICE ASSISTANT SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFL 1305	Legal Terminology	3
POFT 1345	Shorthand/Notetaking I	3
POFT 1329	Beginning Keyboarding	3
Semester Total		15

Second Semester - Spring

POFT 2301	Intermediate Keyboarding	3
POFL 2305	Introduction to Legal Research	3
POFT 1319	Records & Information Management I	3
POFT 1370	Introduction to Office Technology	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
POFL 1359	Legal Transcription	3
BMGT 1325	Office Management	3
ECON 1301	Introduction to Economics	3
Semester Total		15

Second Semester - Spring

POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Math/Natural Science Elective	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS TECHNOLOGY - LEGAL OFFICE ASSISTANT SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

POFI 1301	Computer Applications I	3
POFL 1305	Legal Terminology	3
POFT 1345	Shorthand/Notetaking I	3
POFL 1359	Legal Transcription	3
Semester Total		12

Second Semester - Spring

BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFL 2305	Introduction to Legal Research	3
POFT 2301	Intermediate Keyboarding (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

BUSINESS TECHNOLOGY - MEDICAL OFFICE SPECIALIST SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFM 1300	Basic Medical Coding	3
POFT 1329	Beginning Keyboarding	3
POFM 1370	Office Specialist Medical Terminology	3
Semester Total		15

Second Semester - Spring

MRMT 1307	Medical Transcription I	3
POFT 2301	Intermediate Keyboarding	3
POFM 2333	Medical Document Production	3
POFT 2331	Administrative Project Solutions	3
POFI 1341	Computer Applications II	3
Semester Total		15

SECOND YEAR

First Semester - Fall

POFT 1370	Introduction to Office Technology	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
BMGT 1325	Office Management	3
POFT 1319	Records & Information Management I	3
PSYC 2301	General Psychology	3
Semester Total		15

Second Semester - Spring

ENGL 1301	Composition I	3
BIOL 1308	Biology for Non-Science Majors I (Lecture)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General (Capstone)	3
ECON 1301	Introduction to Economics	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS TECHNOLOGY - MEDICAL OFFICE SPECIALIST SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

POFM 1370	Office Specialist, Medical Terminology	3
POFI 1301	Computer Applications I	3
POFT 2301	Intermediate Keyboarding	3
POFM 1300	Basic Medical Coding	3
Semester Total		12

Second Semester - Spring

MRMT 1307	Medical Transcription I	3
POFM 2333	Medical Document Production	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

**BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY
 SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1329	Beginning Keyboarding	3
POFI 1349	Spreadsheets	3
POFT 1325	Business Math Using Technology	3

Semester Total 15

Second Semester - Spring

POFI 1341	Computer Applications II	3
POFI 2331	Desktop Publishing	3
POFT 2301	Intermediate Keyboarding	3
POFT 1370	Introduction to Office Technology	3
BMGT 1325	Office Management	3

Semester Total 15

SECOND YEAR

First Semester - Fall

POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
ENGL 1301	Composition I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ECON 1301	Introduction to Economics	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3

Semester Total 15

Second Semester - Spring

BMGT 1371	Intermediate HR/PeopleSoft Applications	3
POFT 2331	Administrative Project Solutions (Capstone)	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Math/Natural Science Elective	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3

Semester Total 15

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY SPECIALIZATION

Certificate - Level 1		SCH
First Semester - Fall		
POFI 1301	Computer Applications I	3
POFI 1349	Spreadsheets	3
POFT 1329	Beginning Keyboarding	3
Semester Total		9
Second Semester - Spring		
POFI 1341	Computer Applications II	3
POFT 1325	Business Math Using Technology	3
POFI 2331	Desktop Publishing (Capstone)	3
Semester Total		9
Total Minimum Credits for the Level 1 Certificate		18

BUSINESS TECHNOLOGY - BILINGUAL

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1370	Introduction to Office Technology	3
POFT 1329	Beginning Keyboarding	3
XXXX 1411 ¹	Beginning Foreign Language I	4
Semester Total		16

Second Semester - Spring

ENGL 1301	Composition I	3
POFI 1341	Computer Applications II	3
XXXX 1412 ¹	Beginning Foreign Language II	4
POFI 1349	Spreadsheets	3
POFT 1319	Records & Information Management I	3
Semester Total		16

Third Semester - Summer

BMGT 1325	Office Management	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate

38

¹ Foreign language courses must be in the same language.

CHILD DEVELOPMENT

CHILD DEVELOPMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
TECA 1311	Educating Young Children	3
CDEC 1323	Observation & Assessment	3
Semester Total		15

Second Semester - Spring

CDEC 1358	Creative Arts for Early Childhood	3
XXXX #3## ¹	Math/Natural Science Elective	3
CDEC 2326	Administration of Programs for Children I	3
TECA 1354	Child Growth & Development	3
CDEC 1319	Child Guidance	3
Semester Total		15

Third Semester - Summer

SOCI 1301	Introduction to Sociology OR	
SOCI 2301	Marriage & the Family OR	
GOVT 2305	Federal Government	3
CDEC #3## ²	Approved Program Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
CDEC 1356	Emergent Literacy for Early Childhood	3
PSYC 2301	General Psychology	3
TECA 1303	Families, School, & Community	3
CDEC 1359	Children with Special Needs	3
Semester Total		15

Second Semester - Spring

CDEC 2307	Math & Science for Early Childhood	3
TECA 1318	Wellness of the Young Child	3
CDEC 2380	Cooperative Education - Child Care Provider/Assistant (Capstone)	3
Semester Total		9

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² CDEC 2315 or Consult with an advisor to select a CDEC elective.

CHILD DEVELOPMENT - ADMINISTRATION

Certificate - Level 1

SCH

First Semester - Fall

CDEC 1313	Curriculum Resources for Early Childhood Programs	3
CDEC 2326	Administration of Programs for Children I	3
BMGT 1301	Supervision	3
Semester Total		9

Second Semester - Spring

CDEC 1319	Child Guidance	3
XXXX #3## ¹	Approved Program Elective	3
CDEC 2328	Administration of Programs for Children II (Capstone)	3
POFI 1301	Computer Applications I OR	
ITSC 1309	Integrated Software Applications I	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

21

¹ CDEC 1317, 1321, 1339, 1391, 1393, 2315, 2322, 2324, 2328, 2341; BMGT 1301; POFI 1301, ITSC 1309, or BCIS 1305, all EDUC courses.
 Alternative electives may be chosen with prior departmental approval.

CHILD DEVELOPMENT- EARLY CHILDHOOD

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
TECA 1311	Educating Young Children	3
XXXX #3## ¹	Approved Program Elective	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
Semester Total		15

Second Semester - Spring

PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology OR	
CDEC 1359	Children with Special Needs	3
TECA 1354	Child Growth & Development	3
CDEC 1319	Child Guidance	3
CDEC 1358	Creative Arts for Early Childhood	3
XXXX #3## ¹	Approved Program Elective	3
Semester Total		15

Third Semester - Summer

CDEC 2315	Diverse Cultural/Multilingual Education	3
CDEC 1356	Emergent Literacy for Early Childhood	3
TECA 1318	Wellness of the Young Child	3
CDEC 2307	Math & Science for Early Childhood	3
CDEC 2326	Administration of Programs for Children I (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 2 Certificate **45**

¹ Consult with an advisor to select an approved program elective.

**CHILD DEVELOPMENT - INFANT & TODDLER TEACHER
Certificate - Level 1**

SCH

FIRST YEAR

First Semester - Fall

CDEC 1339	Early Childhood Development: 0-3 Years	3
CDEC 1321	The Infant & Toddler	3
CDEC 1391	Special Topics in Family Life & Relations Studies	3
Semester Total		9

Second Semester - Spring

CDEC 1313	Curriculum Resources for Early Childhood Programs	3
CDEC 1319	Child Guidance (Capstone)	3
CDEC 1393	Special Topics in Early Childhood and Teaching	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **18**

CHILD DEVELOPMENT - TEACHER ASSISTANT/AIDE

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
TECA 1354	Child Growth & Development	3
CDEC 1323	Observation & Assessment	3
Semester Total		15

Second Semester - Spring

SOCI 1301	Introduction to Sociology OR	
TECA 1303	Families, School, & Community	3
TECA 1311	Educating Young Children	3
CDEC 1319	Child Guidance	3
XXXX #3## ¹	Math/Natural Science Elective	3
EDUC 1301	Introduction to the Teaching Profession	3
Semester Total		15

Third Semester - Summer

CDEC 2315	Diverse Cultural/Multilingual Education	3
CDEC 1358	Creative Arts for Early Childhood	3
Semester Total		6

SECOND YEAR

First Semester - Fall

CDEC 1356	Emergent Literacy for Early Childhood	3
CDEC 2341	The School Age Child (Capstone)	3
EDUC 2301	Introduction to Special Populations OR	
CDEC 1359	Children with Special Needs	3
SPCH 1315	Public Speaking OR	
SPCH 1318	Interpersonal Communication	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate

48

¹ Consult with an advisor to select an approved program elective.

COMPUTER PROGRAMMING

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - CLOUD COMPUTING AND APPLICATION DEVELOPMENT - SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSE 1411	Beginning Web Programming	4
MATH 1314	College Algebra	3
COSC 1436	Programming Fundamentals I	4
Semester Total		14

Second Semester - Spring

COSC 1437	Programming Fundamentals II	4
ITSE 2402	Intermediate Web Programming	4
ITCC 1414	CCNA1: Introduction to Computer Networks OR	
ITNW 1425	Fundamentals of Networking Technologies	4
ITSE 1345	Introduction to Oracle SQL OR	
ITSE 1346	Database Theory and Design	3
Semester Total		15

Third Semester - Summer

ENGL 1301	Composition I	3
ITNW 1313	Computer Virtualization	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ITSE 2473	Cloud Computing I- Solution Architect	4
INEW 2434	Advanced Web Programming	4
XXXX #3## ¹	Social / Behavioral Sciences Elective	3
Semester Total		11

Second Semester - Spring

ITSE 2474	Cloud Computing II- Developer	4
XXXX #4## ²	Program Approved IT Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ITSE 1380 ³	Cooperative Education - Computer Programming/Programmer, General (Capstone) OR	
INEW 2332 ³	Comprehensive Software Project	3
Semester Total		14

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

³ Choose one as the capstone ITSE 1380 or INEW 2332

**COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - MICROSOFT
 C# SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with C#)	4
Semester Total		16

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with C#)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		13

Third Semester - Summer

XXXX #3## ¹	Social / Behavioral Sciences Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
ITSE 2471	Mobile Application Programming I	4
XXXX #3## ¹	General Education Elective	3
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		14

Second Semester - Spring

INEW 2434	Advanced Web Programming	4
ITSE 2453	Advanced C# Programming	4
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #3## ³	Program Approved IT Elective	3
Semester Total		14

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² ACCT 2301, 2302; BMGT 1301, 1325; BUSG 1301, 2305; ECON 1301, 2301, 2302; HRPO 1311, 2307.

³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

**COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - MICROSOFT
 C++ SPECIALIZATION**

Associate of Applied Science **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with C++)	4
Semester Total		16

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with C++)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
COSC 2425	Computer Organization & Machine Language	4
COSC 2436	Programming Fundamentals III (with C++)	4
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		15

Second Semester - Spring

INEW 2434	Advanced Web Programming	4
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ³	Program Approved IT Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.
² ACCT 2301, 2302; BMGT 1301, 1325; BUSG 1301, 2305; ECON 1301, 2301, 2302; HRPO 1311, 2307.
³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

**COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - JAVA
 SPECIALIZATION**

Associate of Applied Science **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with Java)	4

Semester Total **16**

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with Java)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #2## ¹	General Education Elective	2

Semester Total **12**

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
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Semester Total **3**

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
COSC 2436	Programming Fundamentals III (with Java)	4
INEW 2438	Advanced Java Programming	4
XXXX #3## ²	Program Approved Business Elective	3

Semester Total **15**

Second Semester - Spring

INEW 2434	Advanced Web Programming	4
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #4## ³	Program Approved IT Elective	4

Semester Total **14**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.
² ACCT 2301, 2302; BMGT 1301, 1325; BUSG 1301, 2305; ECON 1301, 2301, 2302; HRPO 1311, 2307.
³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

**COMPUTER PROGRAMMING - DATABASE ADMINISTRATOR
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I	4
MATH 1314	College Algebra	3
	Semester Total	13

Second Semester - Spring

ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3
ITSE 1345	Introduction to Oracle SQL	3
ITSE 1456	Extensible Markup Language (XML)	4
	Semester Total	10

Third Semester - Summer

ITSE 2456	Oracle Database Administration I OR	
ITMT 2403	Administering a Microsoft SQL Server Database	4
	Semester Total	4

SECOND YEAR

First Semester - Fall

ITSE 2458	Oracle Database Administration II OR	
ITSE 2333	Implementing a Database on Microsoft SQL Server (Capstone)	4
	Semester Total	4

Total Minimum Credits for the Level 2 Certificate **31**

**COMPUTER PROGRAMMING - MOBILE APPLICATION DEVELOPER
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I	4
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
ITSE 2410	iOS Application Development	4
ITSE 1411	Beginning Web Programming	4
Semester Total		11

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
ITSE 2472	Mobile Application Programming II (Capstone)	4
Semester Total		8

Total Minimum Credits for the Level 2 Certificate **32**

**COMPUTER PROGRAMMING - SHAREPOINT ADMINISTRATOR
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
COSC 1436	Programming Fundamentals I	4
ITSC 1319	Internet/Web Page Development	3
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

INEW 2475	SharePoint Administration I	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
ITSE 2402	Intermediate Web Programming	4
Semester Total		11

SECOND YEAR

First Semester - Fall

INEW 1340	ASP.NET Programming	3
INEW 2476	SharePoint Administration II (Capstone)	4
Semester Total		7

Total Minimum Credits for the Level 2 Certificate **31**

**COMPUTER PROGRAMMING - WEB APPLICATION DEVELOPER
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
COSC 1436	Programming Fundamentals I	4
ITSC 1319	Internet/Web Page Development	3
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

ITSE 2402	Intermediate Web Programming	4
COSC 1437	Programming Fundamentals II	4
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3
Semester Total		14

SECOND YEAR

First Semester - Fall

ITSE 1346 ¹	Database Theory & Design (Capstone) OR	
ITSE 1345 ¹	Introduction to Oracle SQL	3
Semester Total		3

Total Minimum Credits for the Level 2 Certificate **30**

¹ Choose one as the capstone ITSE 1346 or ITSE 1345

COMPUTER SYSTEMS NETWORKING

COMPUTER SYSTEMS NETWORKING - CISCO SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITSC 1316	Linux Installation & Configuration OR	
ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3
Semester Total		15

Second Semester - Spring

ITSC 1319	Internet/Web Page Development	3
ITSC 1425	Personal Computer Hardware	4
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3
Semester Total		14

Third Semester - Summer

ITCC 1444	CCNA 2: Switching, Routing & Wireless Essentials	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		7

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITCC 2420	CCNA 3: Enterprise Networking, Security, and Automation	4
XXXX #3## ¹	General Education Elective	3
ITSC 1358	UNIX System Administration I	3
Semester Total		13

Second Semester - Spring

ITCC 2441	CCNA Security	4
ITSY 2401	Firewalls & Network Security	4
ITNW 1380	Cooperative Education - Computer Systems Networking & Telecommunications OR	
ITNW 2335	Network Troubleshooting & Support (Capstone)	3
Semester Total		11

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

**COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK
 PROFESSIONAL (CCNP)**

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

ITCC 1414	CCNA 1: Introduction to Networks	4
Semester Total		4

Second Semester - Spring

ITCC 1444	CCNA 2: Switching, Routing & Wireless Essentials	4
ITCC 2420	CCNA 3: Enterprise Networking, Security, and Automation	4
Semester Total		8

Third Semester - Summer

ITSY 2401	Firewalls & Network Security	4
Semester Total		4

SECOND YEAR

First Semester - Fall

ITCC 2454	CCNP R&S ROUTE	4
ITCC 2455	CCNP R&S SWITCH	4
Semester Total		8

Second Semester - Spring

ITCC 2456	CCNP R&S TSHOOT (Capstone)	4
ITSC 1307	UNIX Operating System I	3
Semester Total		7

Total Minimum Credits for the Level 1 Certificate		31
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**COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK
ASSOCIATE (CCNA)**

Certificate - Level 1

SCH

First Semester - Fall

ITCC 1414	CCNA 1: Introduction to Networks	4
Semester Total		4

Second Semester - Spring

ITCC 1444	CCNA 2: Switching, Routing & Wireless Essentials	4
ITCC 2420	CCNA 3: Enterprise Networking, Security, and Automation	4
Semester Total		8

Third Semester - Summer

ITSY 2401	Firewalls & Network Security	4
Semester Total		4

Total Minimum Credits for the Level 1 Certificate		16
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COMPUTER SYSTEMS NETWORKING - CYBERSECURITY- SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications OR	
ITMT 1358	Windows Client Operating System	3
ITSC 1307	UNIX Operating System I	3
	Semester Total	15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3
COSC 1436	Programming Fundamentals I	4
	Semester Total	17

Third Semester - Summer

ITMT 1357	Administering a Windows Server Operating System	3
	Semester Total	3

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1313	Computer Virtualization	3
ITSY 2330	Intrusion Detection	3
ITSY 2401	Firewalls & Network Security	4
	Semester Total	13

Second Semester - Spring

ITSY 2443	Computer System Forensics	4
ITSY 1491	Special Topics in Information Technology/Security	4
ITSY 2472	Cybersecurity Challenge (Capstone)	4
	Semester Total	12

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

COMPUTER SYSTEMS NETWORKING - CYBERSECURITY- SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ITSC 1307	UNIX Operating System I	3
ITMT 1358	Windows Client Operating System	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
Semester Total		10

Second Semester - Spring

ITSY 1342	Information Technology Security	3
ITSY 2330	Intrusion Detection (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate

16

COMPUTER SYSTEMS NETWORKING - CYBERSECURITY

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1307	UNIX Operating System I	3
BCIS 1305	Business Computer Applications OR	
ITMT 1358	Windows Client Operating System	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4

Semester Total 13

Second Semester - Spring

ITSY 1342	Information Technology Security	3
ITNW 1313	Computer Virtualization	3

Semester Total 6

SECOND YEAR

First Semester - Fall

ITSY 2401	Firewalls & Network Security	4
ITSY 2330	Intrusion Detection	3
ITSY 2443	Computer System Forensics	4

Semester Total 11

Second Semester - Spring

ITSY 1491	Special Topics in Information Technology/Security	4
ITSY 2472	Cybersecurity Challenge (Capstone)	4

Semester Total 8

Total Minimum Credits for the Level 2 Certificate 38

COMPUTER SYSTEMS NETWORKING - INFORMATION TECHNOLOGY CORE		
Certificate - Level 1		SCH
First Semester - Fall		
ITSC 1301	Introduction to Computers	3
ITSC 1425	Personal Computer Hardware	4
ITMT 1358	Windows Client Operating System	3
ITSC 1307	UNIX Operating System I	3
Semester Total		13
Second Semester - Spring		
ITNW 1425	Fundamentals of Networking Technologies	4
ITSE 1402	Computer Programming (Swift I)	4
ITSY 1342	Information Technology Security (Capstone)	3
ITNW 1313	Computer Virtualization	3
Semester Total		14
Total Minimum Credits for the Level 1 Certificate		30

**COMPUTER SYSTEMS NETWORKING - LINUX SERVER ADMINISTRATOR
 SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
ITSC 1307	UNIX Operating System I	3
ITSC 1425	Personal Computer Hardware	4
Semester Total		16

Second Semester - Spring

ENGL 1302	Composition II	3
ITSC 1458	UNIX System Administration I	4
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		14

Third Semester - Summer

ITSC 1319	Internet/Web Page Development OR	
ITSC 1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ITSC 1447	UNIX System Administration II	4
ITNW 1313	Computer Virtualization	3
ITSY 1342	Information Technology Security	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Second Semester - Spring

ITSC 2425	Advanced Linux (Capstone)	4
ITSC 1491	Special Topics in Computer and Information Sciences, General	4
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		11

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.
² Consult with an advisor to select a Program Approved Business Elective.

**COMPUTER SYSTEMS NETWORKING - LINUX SYSTEM ADMINISTRATION
 SPECIALIZATION**

Certificate - Level 1

SCH

First Semester - Fall

ITSC 1425	Personal Computer Hardware	4
ITSC 1307	UNIX Operating System I	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
	Semester Total	11

Second Semester - Spring

ITSC1319	Internet/Web Page Development OR	
ITSC 1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
ITSC 1491	Special Topics in Computer and Information Sciences, General	4
ITSC 1458	UNIX System Administration I (Capstone)	4
	Semester Total	11

Total Minimum Credits for the Level 1 Certificate **22**

**COMPUTER SYSTEMS NETWORKING - LINUX ADMINISTRATOR
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1425	Personal Computer Hardware	4
ITSC 1307	UNIX Operating System I	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
	Semester Total	14

Second Semester - Spring

ITSC 1458	UNIX System Administration I	4
ITSC 1319	Internet/Web Page Development OR	
ITSC 1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
	Semester Total	7

Third Semester - Summer

ITSC 1447	UNIX System Administration II	4
ITNW 1313	Computer Virtualization	3
	Semester Total	7

SECOND YEAR

First Semester - Fall

ITSC 1491	Special Topics in Computer and Information Sciences, General	4
ITSC 2425	Advanced Linux (Capstone)	4
	Semester Total	8

Total Minimum Credits for the Level 2 Certificate **36**

**COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER
 ADMINISTRATION SPECIALIZATION
 Associate of Applied Science**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
MATH 1314	College Algebra	3
ITSC 1425	Personal Computer Hardware	4
ITMT 1358	Windows Client Operating System	3
	Semester Total	16

Second Semester - Spring

ENGL 1301	Composition I	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
ITMT 1357	Administering a Windows Server Operating System	3
ITSY 1342	Information Technology Security	3
	Semester Total	13

Third Semester - Summer

XXXX #3## ¹	General Education Elective	3
ITSC 1319	Internet/Web Page Development	3
	Semester Total	6

SECOND YEAR

First Semester - Fall

ITNW 1313	Computer Virtualization	3
COSC 1436	Programming Fundamentals I	4
ITMT 2304	Implementing an Advanced Server Infrastructure	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
	Semester Total	13

Second Semester - Spring

ITMT 2305	Designing & Implementing a Server Infrastructure	3
ITSY 2330	Intrusion Detection	3
	Cooperative Education - Computer Systems Networking &	
ITNW 1380	Telecommunications OR	
ITNW 2335	Network Troubleshooting & Support (Capstone)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
	Semester Total	12

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION		
Certificate - Level 1		SCH
First Semester - Fall		
ITMT 1358	Windows Client Operating System	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITSC 1425	Personal Computer Hardware	4
Semester Total		10
Second Semester - Spring		
ITMT 1357	Administering a Windows Server Operating System (Capstone)	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3
Semester Total		10
Total Minimum Credits for the Level 1 Certificate		20

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITMT 1358	Windows Client Operating System	3
ITSC 1425	Personal Computer Hardware	4
Semester Total		13

Second Semester - Spring

ITMT 1357	Administering a Windows Server Operating System	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3
Semester Total		10

Third Semester - Summer

ITSC 1319	Internet/Web Page Development	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITNW 1313	Computer Virtualization	3
ITSY 2330	Intrusion Detection	3
ITMT 2304	Implementing an Advanced Server Infrastructure (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **35**

CONSTRUCTION MANAGEMENT TECHNOLOGY

CONSTRUCTION MANAGEMENT TECHNOLOGY - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ELPT 1315	Electrical Calculations I	3
CNBT 1359	Project Scheduling	3
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I	3
Semester Total		18

Second Semester - Spring

CNBT 1342	Building Codes & Inspections	3
ELPT 1329	Residential Wiring	3
CNBT 1346	Construction Estimating I	3
CNBT 1302	Mechanical, Plumbing, & Electrical Systems in Construction I	3
CNBT 1316	Construction Technology I	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
CNBT 2337	Construction Estimating II	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Second Semester - Spring

CNBT 2342	Construction Management I	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Third Semester - Summer

CNBT 1391	Special Topics in Construction/Building Technology/Technician	3
CNBT 2335	Computer-Aided Construction Scheduling (Capstone)	3
Semester Total		6

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

CONSTRUCTION MANAGEMENT TECHNOLOGY-GENERAL

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
CNBT 1359	Project Scheduling	3
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I	3
Semester Total		15

Second Semester - Spring

CNBT 2335	Computer-Aided Construction Scheduling	3
ELPT 1329	Residential Wiring	3
CNBT 1302	Mechanical, Plumbing, & Electrical Systems in Construction I	3
CNBT 1316	Construction Technology I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate **27**

CONSTRUCTION MANAGEMENT TECHNOLOGY - CONSTRUCTION GENERAL		
Certificate - Level 1		SCH
First Semester - Fall		
ELPT 1315	Electrical Calculations I	3
CNBT 1316	Construction Technology I	3
CNBT 1359	Project Scheduling	3
Semester Total		9
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I (Capstone)	3
Semester Total		9
Total Minimum Credits for the Level 1 Certificate		18

**CONSTRUCTION MANAGEMENT TECHNOLOGY– CONSTRUCTION – BUILDING
INSPECTION SPECIALIZATION**

Certificate - Level 1 **SCH**

First Semester - Fall

CNBT 1359 Project Scheduling 3

CNBT 1300 Residential & Light Commercial Construction Drawings 3

CNBT 1311 Construction Methods & Materials I (Capstone) 3

Semester Total **9**

CNBT 1342 Building Codes & Inspections 3

CNBT 1391 Special Topics: Residential Construction Technology 3

ELPT 1391 Special Topics: Electrical and Power Transmission Installer, General 3

Semester Total **9**

Total Minimum Credits for the Level 1 Certificate **18**

COSMETOLOGY

COSMETOLOGY OPERATOR

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
XXXX #3## ¹	Math/Natural Science Elective	3
CSME 1410	Introduction to Haircutting & Related Theory	4
CSME 1405	Fundamentals of Cosmetology	4
CSME 2204	Introduction to the Theory & Chemistry of Hair Color	2
Semester Total		16

Second Semester - Spring

CMSE 1391	Special Topics in Cosmetology/Cosmetologist, General	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
CSME 1453	Chemical Reformation & Related Theory	4
CSME 2501	The Principles of Hair Coloring & Related Theory	5
Semester Total		15

Third Semester - Summer

CSME 2439	Advanced Hair Design	4
CSME 2343	Salon Development	3
Semester Total		7

SECOND YEAR

First Semester - Fall

CSME 2337	Advanced Cosmetology Techniques	3
CSME 2410	Advanced Haircutting & Related Theory	4
XXXX #3## ¹	General Education Elective	3
PSYC 2301	General Psychology	3
Semester Total		13

Second Semester - Spring

CSME 1451	Artistry of Hair, Theory & Practice	4
CSME 2541	Preparation for the State Licensing Examination (Capstone)	5
Semester Total		9

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

COSMETOLOGY OPERATOR

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
CSME 1405	Fundamentals of Cosmetology	4
CSME 1410	Introduction to Haircutting & Related Theory	4
CSME 1453	Chemical Reformation & Related Theory	4
CSME 2204	Introduction to the Theory & Chemistry of Hair Color	2
Semester Total		17

Second Semester - Spring

CSME 2501	The Principles of Hair Coloring & Related Theory	5
CSME 2337	Advanced Cosmetology Techniques	3
CSME 2439	Advanced Hair Design	4
CSME 1391	Special Topics in Cosmetology/Cosmetologist, General	3
Semester Total		15

Third Semester - Summer

CSME 2343	Salon Development	3
CSME 2410	Advanced Haircutting & Related Theory	4
CSME 1451	Artistry of Hair, Theory & Practice	4
CSME 2541	Preparation for the State Licensing Examination (Capstone)	5
Semester Total		16

Total Minimum Credits for the Level 2 Certificate

48

COSMETOLOGY INSTRUCTOR
Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CSME 1535	Orientation to the Instruction of Cosmetology	5
CSME 1534	Cosmetology Instructor I	5
XXXX #3## ¹	Computer Applications Elective	3
Semester Total		16

Second Semester - Spring

XXXX #3## ²	Math/Natural Science Elective	3
CSME 2514	Cosmetology Instructor II	5
CSME 2549	Cosmetology Instructor III	5
XXXX #3## ²	General Education Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

CSME 2544	Cosmetology Instructor IV	5
CSME 2545	Instructional Theory & Clinic Operation (Capstone)	5
XXXX #3## ²	Humanities/Fine Arts Elective	3
BMGT 1301	Supervision	3
Semester Total		16

Second Semester - Spring

BUSG 2309	Small Business Management/Entrepreneurship	3
GOVT 2306	Texas Government	3
SPCH 1321	Business & Professional Communication OR	
SPCH 1315	Public Speaking	3
PSYC 2301	General Psychology	3
Semester Total		12

Total Minimum Credits for the AAS Degree **60**

¹ Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

² A list of electives appears in the Core Curriculum section of this catalog.

COSMETOLOGY INSTRUCTOR

Certificate - Level 1

SCH

First Semester - Fall

CSME 1535 Orientation to the Instruction of Cosmetology 5

CSME 1534 Cosmetology Instructor I 5

CSME 2514 Cosmetology Instructor II 5

Semester Total 15

Second Semester - Spring

CSME 2549 Cosmetology Instructor III 5

CSME 2544 Cosmetology Instructor IV 5

CSME 2545 Instructional Theory & Clinic Operation (Capstone) 5

Semester Total 15

Total Minimum Credits for the Level 1 Certificate 30

COSMETOLOGY - THE ART OF BARBERING

Certificate - Level 1

SCH

First Semester - Fall

BARB 1307	Introduction to Hair Design	3
BARB 1402	Barber Styling I	4
BARB 1404	Introduction to Barber Styling	4
BARB 1391	Special Topics in Barber/Hairstylist	3
Semester Total		14

Second Semester - Spring

BARB 1442	Barber Styling II	4
BARB 2402	Barber Styling III	4
BARB 2431	Advanced Barber Styling I	4
Semester Total		12

Third Semester - Summer

BARB 2441	Advanced Barber Styling II	4
BARB 2432	Barber Law & Shop Management I	4
BARB 2444	Barber Law & Shop Management II	4
BARB 2470	Preparation for the State Barber Examination (Capstone)	4
Semester Total		16

Total Minimum Credits for the Level 1 Certificate **42**

COSMETOLOGY - FACIAL SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

CSME 1420 Orientation to Facial Specialist 4

CSME 1421 Principles of Facial & Skin Care Technology I 4

CSME 1447 Principles of Skin Care/Facials & Related Theory 4

Semester Total 12

Second Semester - Spring

CSME 1545 Principles of Facial & Skin Care Technology II 5

CSME 2531 Principles of Facial & Skin Care Technology III (Capstone) 5

CSME 1491 Special Topics in Cosmetology/Cosmetologist, General 4

Semester Total 14

Total Minimum Credits for the Level 1 Certificate 26

COSMETOLOGY - HAIR WEAVING & BRAIDING ENTREPRENEUR

Certificate - Level 1

SCH

First Semester - Fall

CSME 1452	Orientation to Hair Weaving & Braiding	4
CSME 1557	Applications of Hair Weaving & Braiding	5
CSME 1491	Special Topics in Cosmetology/Cosmetologist, General	4
CSME 2343	Salon Development (Capstone)	3
	Semester Total	16
	Total Minimum Credits for the Level 1 Certificate	16

COSMETOLOGY - LASH

Certificate - Level 1		SCH
First Semester - Fall		
CSME 1308	Principles of Eyelash Extensions	3
CSME 1409	Application of Eyelash Extensions	4
CSME 1491	Special Topics in Cosmetology/Cosmetologist, General	4
CSME 1507	Orientation to Eyelash Extensions (Capstone)	5
Semester Total		16
Total Minimum Credits for the Level 1 Certificate		16

CRIMINAL JUSTICE / LAW ENFORCEMENT

CRIMINAL JUSTICE - LAW ENFORCEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CRIJ 1301	Introduction to Criminal Justice	3
ENGL 1301	Composition I	3
GOVT 2305	Federal Government	3
Semester Total		12

Second Semester - Spring

CRIJ 1307	Crime in America	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ¹	Math/Natural Science Elective	3
CRIJ 2328	Police Systems & Practices	3
Semester Total		12

SECOND YEAR

First Semester - Fall

GOVT 2306	Texas Government	3
CRIJ 2323	Legal Aspects of Law Enforcement	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ²	Computer Applications Elective	3
Semester Total		12

Second Semester - Spring

CJLE 1506	Basic Peace Officer I	5
CJLE 1512	Basic Peace Officer II	5
CJLE 1518	Basic Peace Officer III	5
CJLE 1524	Basic Peace Officer IV	5
Semester Total		20

Third Semester - Summer

CJLE 2484	Cooperative Education-Criminal Justice/Police Science (Capstone)	4
Semester Total		4

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with Advisor: ITSC 1301, POFI 1301 or BCIS 1305.

CRIMINAL JUSTICE - BASIC PEACE OFFICER LICENSING

Certificate - Level 1

SCH

LEVEL I

First Semester - Fall

CJLE 1506	Basic Peace Officer I	5
CJLE 1512	Basic Peace Officer II	5
Semester Total		10

LEVEL II

Second Semester - Spring

CJLE 1518	Basic Peace Officer III	5
CJLE 1524	Basic Peace Officer IV (Capstone)	5
Semester Total		10

Total Minimum Credits for the Level 1 Certificate **20**

CULINARY ARTS

CULINARY ARTS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEF 1301	Basic Food Preparation	3
CHEF 2201	Intermediate Food Preparation	2
CHEF 2231	Advanced Food Preparation	2
Semester Total		13

Second Semester - Spring

CHEF 2302	Saucier	3
CHEF 1310	Garde Manger	3
MATH 1324	Mathematics for Business & Social Sciences	3
PSTR 1301	Fundamentals of Baking	3
HAMG 1321	Introduction to Hospitality Industry	3
Semester Total		15

Third Semester - Summer

GEOL 1305	Environmental Science (Lecture)	3
RSTO 1325	Purchasing for Hospitality Operations	3
CHEF 1205	Sanitation & Safety	2
RSTO 1301	Beverage Management	3
Semester Total		11

SECOND YEAR

First Semester - Fall

CHEF 1302	Principles of Healthy Cuisine	3
CHEF 1314	A La Carte Cooking	3
CHEF 1313	Food Service Operation/Systems	3
HAMG 1324	Hospitality Human Resources Management	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
CHEF 2171	Culinary Capstone Projects Laboratory (Capstone)	1
CHEF 2265	Practicum (or Field Experience) - Culinary Arts/Chef Training	2
Semester Total		6

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

CULINARY ARTS - PREP COOK

Certificate - Level 1

SCH

First Semester - Fall

CHEF 1301	Basic Food Preparation	3
CHEF 2201	Intermediate Food Preparation	2
HAMG 1321	Introduction to Hospitality Industry	3
RSTO 1325	Purchasing for Hospitality Operations	3
PSTR 1301	Fundamentals of Baking	3
CHEF 2231	Advanced Food Preparation (Capstone)	2

Semester Total **16**

Total Minimum Credits for the Level 1 Certificate **16**

CULINARY ARTS

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
CHEF 1301	Basic Food Preparation	3
CHEF 2201	Intermediate Food Preparation	2
CHEF 2231	Advanced Food Preparation	2
HAMG 1321	Introduction to Hospitality Industry	3
Semester Total		13

Second Semester - Spring

PSTR 1301	Fundamentals of Baking	3
CHEF 2302	Saucier	3
CHEF 1310	Garde Manger	3
RSTO 1325	Purchasing for Hospitality Operations	3
Semester Total		12

Third Semester - Summer

RSTO 1301	Beverage Management	3
CHEF 1205	Sanitation & Safety	2
CHEF 1314	A La Carte Cooking (Capstone)	3
Semester Total		8

Total Minimum Credits for the Level 2 Certificate **33**

DENTAL ASSISTING

ALLIED HEALTH - DENTAL ASSISTING

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

XXXX #3##1	Social / Behavioral Science Elective	3
HPRS 1201	Introduction to Health Professions	2
Semester Total		5

First Semester - Fall

DNTA 1245	Preventive Dentistry	2
DNTA 1411	Dental Science	4
DNTA 1401	Dental Materials	4
DNTA 1415	Chairside Assisting	4
DNTA 1305	Dental Radiology	3
Semester Total		17

Second Semester - Spring

DNTA 1447	Advanced Dental Science	4
DNTA 1351	Dental Office Management	3
DNTA 1453	Dental Assisting Applications	4
DNTA 1349	Dental Radiology in the Clinic	3
DNTA 1167	Practicum (or Field Experience) - Dental Assisting/Assistant	1
Semester Total		15

Third Semester - Summer

DNTA 2130	Seminar for the Dental Assistant	1
DNTA 1102	Communication & Behavior in the Dental Office	1
DNTA 2267	Practicum (or Field Experience) - Dental Assisting/Assistant (Capstone)	2
Semester Total		4

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ENGL 1302	Composition II	3
Semester Total		13

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DENTAL ASSISTING

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
Semester Total		2

First Semester - Fall

DNTA 1245	Preventive Dentistry	2
DNTA 1411	Dental Science	4
DNTA 1401	Dental Materials	4
DNTA 1415	Chairside Assisting	4
DNTA 1305	Dental Radiology	3
Semester Total		17

Second Semester - Spring

DNTA 1447	Advanced Dental Science	4
DNTA 1351	Dental Office Management	3
DNTA 1453	Dental Assisting Applications	4
DNTA 1349	Dental Radiology in the Clinic	3
DNTA 1167	Practicum (or Field Experience) - Dental Assisting/Assistant	1
Semester Total		15

Third Semester - Summer

DNTA 2130	Seminar for the Dental Assistant	1
DNTA 1102	Communication & Behavior in the Dental Office	1
DNTA 2267	Practicum (or Field Experience) - Dental Assisting/Assistant (Capstone)	2
Semester Total		4

Total Minimum Credits for the Level 1 Certificate **38**

DENTAL HYGIENE

DENTAL HYGIENE

Associate of Applied Science

SCH

Prerequisite Semester

CHEM 1305	Introductory Chemistry I (Lecture)	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
ENGL 1301	Composition I	3
SOCI 1301	Introduction to Sociology	3
Semester Total		13

FIRST YEAR

First Semester - Fall

DHYG 1331	Preclinical Dental Hygiene	3
DHYG 1304	Dental Radiology	3
DHYG 1227	Preventive Dental Hygiene Care	2
DHYG 1301	Orofacial Anatomy, Histology & Embryology	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		15

Second Semester - Spring

DHYG 1260	Clinical-Dental Hygiene/Hygienist	2
DHYG 1339	General & Oral Pathology	3
DHYG 2201	Dental Hygiene Care I	2
DHYG 1319	Dental Materials	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
DHYG 1207	General & Dental Nutrition	2
Semester Total		16

Third Semester - Summer

DHYG 1261	Clinical - Dental Hygiene/Hygienist	2
Semester Total		2

SECOND YEAR

First Semester - Fall

DHYG 1211	Periodontology	2
DHYG 1235	Pharmacology for the Dental Hygienist	2
DHYG 1215	Community Dentistry	2
DHYG 2260	Clinical - Dental Hygiene/ Hygienist	2
PHIL 2306	Introduction to Ethics	3
Semester Total		11

Second Semester - Spring

DHYG 2153	Dental Hygiene Practice	1
DHYG 2231	Dental Hygiene Care II	2
DHYG 2261	Clinical - Dental Hygiene/ Hygienist (Capstone)	2
PSYC 2301	General Psychology	3
SPCH 1318	Interpersonal Communication	3
Semester Total		11

Total Minimum Credits for the AAS Degree **68**

DIAGNOSTIC MEDICAL SONOGRAPHY

DIAGNOSTIC MEDICAL SONOGRAPHY

Advanced Technical Certificate

SCH

FIRST YEAR

First Semester - Fall

DMSO 1210	Introduction to Sonography	2
DMSO 1441	Abdominopelvic Sonography	4
DMSO 1202	Basic Ultrasound Physics	2
DMSO 1355	Sonographic Pathophysiology	3
DMSO 1351	Sonographic Sectional Anatomy	3
Semester Total		14

Second Semester - Spring

DMSO 2441	Sonography of Abdominopelvic Pathology	4
DMSO 2405	Sonography of Obstetrics/Gynecology	4
DMSO 1342	Intermediate Ultrasound Physics	3
DMSO 1266	Sonographic Practicum I (or Field Experience)	2
Semester Total		13

Third Semester - Summer

DMSO 2351	Doppler Physics	3
DMSO 2342	Sonography of High Risk Obstetrics	3
DMSO 2253	Sonography of Superficial Structures	2
DMSO 2266	Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician	2
Semester Total		10

SECOND YEAR

First Semester - Fall

DMSO 2243	Advanced Ultrasound Physics	2
DMSO 2130	Advanced Ultrasound & Review	1
DMSO 2467	Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician (Capstone)	4
Semester Total		7

Total Minimum Credits for the Advanced Technical Certificate **44**

DIGITAL COMMUNICATION

DIGITAL COMMUNICATION - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3
Semester Total		15

Second Semester - Spring

ARTC 1353	Computer Illustration (Illustrator)	3
PHTC 1311	Fundamentals of Photography	3
ARTC 1313	Digital Publishing I	3
IMED 1316	Web Design I	3
ARTV 1351	Digital Video	3
Semester Total		15

Third Semester - Summer

IMED 1341	Interface Design	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

IMED 2359	Interactive Web Elements	3
IMED 1359	Writing for Digital Media	3
ARTS 1303	Art History I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		12

Second Semester - Spring

ARTV 1345	3-D Modeling & Rendering I	3
ARTC 2335	Portfolio Development for Graphic Design OR	
IMED 2313	Project Analysis & Design	3
XXXX #3## ¹	Math/Natural Science Elective	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - GENERAL

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325 Introduction to Computer Graphics 3

ARTC 1305 Basic Graphic Design 3

ARTC 1302 Digital Imaging I (Photoshop) 3

Semester Total 9

Second Semester - Spring

PHTC 1311 Fundamentals of Photography 3

IMED 1316 Web Design I (Capstone) 3

ARTV 1351 Digital Video 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

DIGITAL COMMUNICATION - GENERAL

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3
	Semester Total	15

Second Semester - Spring

PHTC 1311	Fundamentals of Photography	3
ARTC 1353	Computer Illustration (Illustrator)	3
IMED 1316	Web Design I	3
	Semester Total	9

SECOND YEAR

First Semester - Fall

IMED 1341	Interface Design	3
IMED 2359	Interactive Web Elements	3
ARTV 1351	Digital Video	3
	Semester Total	9

Second Semester - Spring

IMED 1359	Writing for Digital Media	3
ARTV 1345	3-D Modeling & Rendering I	3
ARTC 1313	Digital Publishing I	3
ARTC 2335	Portfolio Development for Graphic Design OR	
IMED 2313	Project Analysis & Design (Capstone)	3
	Semester Total	12

Total Minimum Credits for the Level 2 Certificate **45**

DIGITAL COMMUNICATION - XR DESIGN & DEVELOPMENT SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1305	Basic Graphic Design	3
IMED 1345	Interactive Digital Media I (Virtual Reality -Introduction)	3
Semester Total		12

Second Semester - Spring

ARTV 1351	Digital Video	3
IMED 1341	Interface Design	3
IMED 2345	Interactive Digital Media II (Virtual Reality - Intermediate)	3
ARTV 1345	3-D Modeling & Rendering I	3
ARTC 1353	Computer Illustration (Illustrator)	3
Semester Total		15

Third Semester - Summer

XXXX #3## ¹	Math/Natural Science Elective	3
IMED 1359	Writing for Digital Media	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ARTS 1303	Art History I	3
ARTV 2341	Advanced Digital Video	3
ARTV 2345	3-D Modeling & Rendering II	3
ARTV 2301	2-D Animation I	3
ITXR 2375	Advanced XR Design	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
IMED 2313	Project Analysis & Design (Assessment)	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - XR DESIGN & DEVELOPMENT SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1305	Basic Graphic Design	3
ARTV 1351	Digital Video	3
Semester Total		9

Second Semester - Spring

IMED 1341	Interface Design	3
ARTV 1345	3-D Modeling & Rendering I	3
IMED 1345	Interactive Digital Media I (Virtual Reality -Introduction) (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **18**

DIGITAL COMMUNICATION - XR DESIGN & DEVELOPMENT SPECIALIZATION
Certificate - Level 2 **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
IMED 1345	Interactive Digital Media I (Virtual Reality -Introduction)	3
ARTV 1345	3-D Modeling & Rendering I	3
ARTC 1302	Digital Imaging I (Photoshop)	3
Semester Total		12

Second Semester - Spring

ARTC 1305	Basic Graphic Design	3
IMED 2345	Interactive Digital Media II (Virtual Reality - Intermediate)	3
ARTC 1353	Computer Illustration (Illustrator)	3
ARTV 2345	3-D Modeling & Rendering II	3
Semester Total		12

SECOND YEAR

First Semester - Fall

ITXR 2375	Advanced XR Design	3
ARTV 1351	Digital Video	3
IMED 1341	Interface Design	3
IMED 1359	Writing for Digital Media	3
Semester Total		12

Second Semester - Spring

ARTV 2301	2-D Animation I	3
ARTV 2341	Advanced Digital Video	3
IMED 2313	Project Analysis & Design (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **45**

** TSI testing is required prior to first enrollment*

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PHTC 1343	Expressive Photography	3
PHTC 1371	Adobe Photoshop Lightroom CC	3
ARTC 1302	Digital Imaging I (Photoshop)	3
PHTC 1311	Fundamentals of Photography	3
Semester Total		15

Second Semester - Spring

PHTC 2349	Photo Digital Imaging II	3
IMED 1359	Writing for Digital Media	3
ARTC 1305	Basic Graphic Design	3
PHTC 1353	Portraiture I	3
Semester Total		12

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ARTV 1351	Digital Video	3
ARTS 1303	Art History I	3
Semester Total		9

SECOND YEAR

First Semester - Fall

PHTC 1345	Illustrative Photography I	3
PHTC 1351	Photojournalism I	3
PHTC 2353	Portraiture II	3
XXXX #3## ¹	General Education Elective	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Math/Natural Science Elective	3
PHTC 2340	Photographic Studio Management	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
PHTC 2343	Portfolio Development	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1302 Digital Imaging I (Photoshop) 3

ARTC 1305 Basic Graphic Design 3

PHTC 1311 Fundamentals of Photography 3

Semester Total 9

Second Semester - Spring

IMED 1359 Writing for Digital Media 3

PHTC 1353 Portraiture I 3

PHTC 1343 Expressive Photography (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PHTC 1371	Adobe Photoshop Lightroom CC	3
PHTC 1311	Fundamentals of Photography	3
PHTC 1343	Expressive Photography	3
ARTC 1302	Digital Imaging I (Photoshop)	3
Semester Total		15

Second Semester - Spring

PHTC 2349	Photo Digital Imaging II	3
IMED 1359	Writing for Digital Media	3
ARTC 1305	Basic Graphic Design	3
PHTC 1353	Portraiture I	3
Semester Total		12

SECOND YEAR

First Semester - Fall

PHTC 1351	Photojournalism I	3
PHTC 1345	Illustrative Photography I	3
ARTV 1351	Digital Video	3
PHTC 2353	Portraiture II	3
Semester Total		12

Second Semester - Spring

PHTC 2343	Portfolio Development	3
PHTC 2340	Photographic Studio Management (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate **45**

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 2311	History of Communication Graphics	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3
Semester Total		15

Second Semester - Spring

ARTC 1313	Digital Publishing I	3
ARTC 1321	Illustration Techniques I	3
ARTC 1353	Computer Illustration (Illustrator)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		12

Third Semester - Summer

XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ARTC 1317	Design Communication I	3
ARTC 2313	Digital Publishing II	3
ARTC 2305	Digital Imaging II	3
ARTC 2317	Typographic Design	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
ARTC 2347	Design Communication II	3
ARTC 2335	Portfolio Development for Graphic Design	3
IMED 1316	Web Design I	3
Semester Total		12

Third Semester - Summer

IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1305	Basic Graphic Design	3
ARTC 1309	Basic Illustration	3
Semester Total		9

Second Semester - Spring

IMED 1316	Web Design I	3
ARTC 1353	Computer Illustration (Illustrator)	3
ARTC 1313	Digital Publishing I (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **18**

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1305	Basic Graphic Design	3
ARTC 2311	History of Communication Graphics	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1309	Basic Illustration	3
Semester Total		15

Second Semester - Spring

ARTC 1321	Illustration Techniques I	3
ARTC 1353	Computer Illustration (Illustrator)	3
ARTC 1317	Design Communication I	3
ARTC 1313	Digital Publishing I	3
Semester Total		12

SECOND YEAR

First Semester - Fall

ARTC 2313	Digital Publishing II	3
ARTC 2305	Digital Imaging II	3
IMED 1316	Web Design I	3
ARTC 2317	Typographic Design	3
Semester Total		12

Second Semester - Spring

ARTC 2347	Design Communication II	3
ARTC 2335	Portfolio Development for Graphic Design (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate **45**

DIGITAL COMMUNICATION - MOBILE APPLICATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325 Introduction to Computer Graphics 3

IMED 1316 Web Design I 3

IMED 1341 Interface Design 3

Semester Total 9

Second Semester - Spring

IMED 2351 Digital Media Programming 3

IMED 2359 Interactive Web Elements 3

IMED 2345 Interactive Digital Media II (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION
Associate of Applied Science

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTV 1303	Basic Animation	3
ARTC 1309	Basic Illustration	3
ARTV 1345	3-D Modeling & Rendering I	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Math/Natural Science Elective	3
ARTV 2301	2-D Animation I	3
ARTV 2345	3-D Modeling & Rendering II	3
ARTV 1351	Digital Video	3
ARTC 1353	Computer Illustration (Illustrator)	3
Semester Total		15

Third Semester - Summer

ARTS 1303	Art History I	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ARTV 2355	Character Rigging & Animation	3
ARTV 2330	2-D Animation II	3
ARTC 1359	Visual Design For New Media	3
ARTV 2341	Advanced Digital Video	3
XXXX #3## ¹	General Education Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ARTV 2335	Portfolio Development for Animation	3
IMED 2388	Internship-Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		9

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

**DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION
Certificate - Level 1**

FIRST YEAR

First Semester - Fall

ARTC 1302	Digital Imaging I (Photoshop)	3
ARTV 1303	Basic Animation	3
ARTC 1309	Basic Illustration	3
	Semester Total	9

Second Semester - Spring

ARTV 1345	3-D Modeling & Rendering I	3
ARTC 1305	Basic Graphic Design	3
ARTV 2301	2-D Animation I (Capstone)	3
	Semester Total	9

Total Minimum Credits for the Level 1 Certificate **18**

**DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION
 Certificate - Level 2**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTV 1303	Basic Animation	3
ARTC 1309	Basic Illustration	3
ARTV 1345	3-D Modeling & Rendering I	3
Semester Total		15

Second Semester - Spring

ARTV 2345	3-D Modeling & Rendering II	3
ARTV 1351	Digital Video	3
ARTC 1353	Computer Illustration (Illustrator)	3
ARTC 1305	Basic Graphic Design	3
ARTV 2301	2-D Animation I	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ARTV 2330	2-D Animation II	3
ARTV 2355	Character Rigging & Animation	3
ARTC 1359	Visual Design For New Media	3
ARTV 2341	Advanced Digital Video	3
Semester Total		12

Second Semester - Spring

ARTV 2335	Portfolio Development for Animation (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree **45**

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
IMED 1316	Web Design I	3
ARTC 1302	Digital Imaging I (Photoshop)	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
IMED 2351	Digital Media Programming	3
IMED 1341	Interface Design	3
IMED 2315	Web Design II	3
Semester Total		12

Third Semester - Summer

IMED 2359	Interactive Web Elements	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		9

SECOND YEAR

First Semester - Fall

IMED 1359	Writing for Digital Media	3
IMED 2309	Internet Commerce	3
ARTV 1351	Digital Video	3
ARTS 1303	Art History I	3
Semester Total		12

Second Semester - Spring

IMED 2371	Content Management Systems	3
IMED 2313	Project Analysis & Design	3
XXXX #3## ¹	Approved Program Elective	3
IMED 2388	Internship-Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
IMED 1341	Interface Design	3
IMED 1316	Web Design I	3
Semester Total		12

Second Semester - Spring

ARTC 1302	Digital Imaging I (Photoshop)	3
IMED 2359	Interactive Web Elements (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate **18**

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
IMED 1316	Web Design I	3
ARTC 1302	Digital Imaging I (Photoshop)	3
Semester Total		15

Second Semester - Spring

IMED 1341	Interface Design	3
IMED 2351	Digital Media Programming	3
IMED 2315	Web Design II	3
Semester Total		9

SECOND YEAR

First Semester - Fall

IMED 2359	Interactive Web Elements	3
ARTV 1351	Digital Video	3
IMED 2309	Internet Commerce	3
Semester Total		9

Second Semester - Spring

IMED 2371	Content Management Systems	3
IMED 1359	Writing for Digital Media	3
IMED 2313	Project Analysis & Design (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **42**

DIGITAL GAMING

DIGITAL GAMING & SIMULATION FOR ARTISTS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1378	Art for 2D Games	3
GAME 1306	Design & Creation of Games	3
GAME 1373	Introduction to Perspective Drawing	3
GAME 1336	Introduction to 3D Game Modeling	3
Semester Total		15

Second Semester - Spring

ARTS 1303	Art History I OR	
ARTS 1304	Art History II (14th century to present)	3
GAME 1375	Principles of Game Concept Art	3
GAME 2312	Interactive Audio OR	
GAME 2341	Game Scripting	3
GAME 1304	Level Design	3
GAME 2376	Advanced 3D Game Modeling	3
Semester Total		15

Third Semester - Summer

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

GAME 1314	Character Sculpting	3
GAME 2304	Level Design II	3
GAME 2332	Project Development I	3
GAME 1374	Introduction to 3D Game Animation	3
Semester Total		12

Second Semester - Spring

GAME 2374	3D Rigging for Games & Simulations	3
PSYC 2301	General Psychology	3
GAME 2308	Portfolio for Game Development	3
GAME 2334	Project Development II (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL GAMING & SIMULATION FOR ARTISTS

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1378	Art for 2D Games	3
GAME 1306	Design & Creation of Games	3
GAME 1373	Introduction to Perspective Drawing	3
GAME 1336	Introduction to 3D Game Modeling	3
Semester Total		15

Second Semester - Spring

ARTS 1303	Art History I OR	
ARTS 1304	Art History II (14th century to present)	3
GAME 1375	Principles of Game Concept Art	3
GAME 2312	Interactive Audio OR	
GAME 2341	Game Scripting	3
GAME 1304	Level Design	3
GAME 2376	Advanced 3D Game Modeling	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GAME 1314	Character Sculpting	3
GAME 2304	Level Design II	3
GAME 1374	Introduction to 3D Game Animation	3
GAME 2332	Project Development I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate **42**

DIGITAL GAMING & SIMULATION FOR PROGRAMMERS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1379	Introduction to Game Programming	3
GAME 2341	Game Scripting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

GAME 2373	2D Game Programming	3
GAME 2312	Interactive Audio	3
GAME 1336	Introduction to 3D Game Modeling	3
GAME 2347	Advanced Game Programming	3
GAME 2302	Mathematical Applications for Game Development	3
Semester Total		15

Third Semester - Summer

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

GAME 2319	Game Engine	3
GAME 2304	Level Design II	3
GAME 2342	Game Development Using C++	3
GAME 2332	Project Development I	3
Semester Total		12

Second Semester - Spring

PSYC 2301	General Psychology	3
GAME 2379	Motion Capture	3
GAME 2308	Portfolio for Game Development	3
GAME 2334	Project Development II (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

DIGITAL GAMING & SIMULATION FOR PROGRAMMERS

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1379	Introduction to Game Programming	3
GAME 2341	Game Scripting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

GAME 2312	Interactive Audio	3
GAME 1336	Introduction to 3D Game Modeling	3
GAME 2373	2D Game Programming	3
GAME 2347	Advanced Game Programming	3
GAME 2302	Mathematical Applications for Game Development	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GAME 2319	Game Engine	3
GAME 1304	Level Design	3
GAME 2342	Game Development Using C++	3
GAME 2332	Project Development I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate

42

DRAFTING & DESIGN ENGINEERING TECHNOLOGY

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED DRAFTING - GENERAL

Associate of Applied Science **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 2317	Descriptive Geometry	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 1333	Mechanical Drafting	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 1358	Electrical/Electronics Drafting OR	
DFTG 1329	Electro-Mechanical Drafting	3
DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2323	Pipe Drafting	3
DFTG 1330	Civil Drafting I	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

Second Semester - Spring

DFTG 1317	Architectural Drafting-Residential	3
ARCE 1352	Structural Drafting	3
DFTG 2335	Advanced Technologies in Mechanical Design & Drafting OR	
DFTG 2340	Solid Modeling/Design	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2338	Final Project - Advanced Drafting (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - GENERAL

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
Semester Total		6

Second Semester - Spring

DFTG 1358	Electrical/Electronics Drafting OR	
DFTG 1329	Electro-Mechanical Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting OR	
DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 1333	Mechanical Drafting	3
DFTG 1317	Architectural Drafting-Residential	3
Semester Total		12

Third Semester - Summer

DFTG 2323	Pipe Drafting	3
DFTG 1330	Civil Drafting I	3
ARCE 1352	Structural Drafting (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **27**

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - ARCHITECTURAL SPECIALIZATION**

Associate of Applied Science **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
	Semester Total	15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 1317	Architectural Drafting-Residential	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
MATH 1316	Plane Trigonometry	3
ARCE 1352	Structural Drafting	3
	Semester Total	15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2300	Intermediate Architectural Drafting-Residential	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 1330	Civil Drafting I	3
DFTG 1376	Revit Residential	3
	Semester Total	15

Second Semester - Spring

DFTG 2331	Advanced Technologies in Architectural Design & Drafting	3
DFTG 1392	Special Topics in Architectural Drafting & Architectural CAD/CADD	3
DFTG 2328	Architectural Drafting - Commercial (Capstone)	3
ARCE 2352	Mechanical & Electrical Systems OR	
XXXX #3## ²	Program Approved Elective	3
DFTG 2338	Final Project - Advanced Drafting OR	
DFTG 2381	Cooperative Education - Drafting & Design Technology/Technician, General	3
	Semester Total	15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - ARCHITECTURAL SPECIALIZATION**

Certificate - Level 1 **SCH**

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
Semester Total		6

Second Semester - Spring

ARCE 1352	Structural Drafting	3
DFTG 1317	Architectural Drafting-Residential	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 1330	Civil Drafting I	3
Semester Total		12

Third Semester - Summer

DFTG 1376	Revit Residential	3
ARCE 2352	Mechanical & Electrical Systems OR	
XXXX #3## ¹	Program Approved Elective	3
DFTG 2328	Architectural Drafting - Commercial (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **27**

¹ Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - CIVIL SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
SRVY 1301	Introduction to Surveying	3
DFTG 1310	Specialized Basic Computer Aided Drafting (CAD) OR	
DFTG #3## ²	Drafting Elective	3
DFTG 2317	Descriptive Geometry	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
SRVY 1341	Land Surveying	3
DFTG 2321	Topographical Drafting OR	
DFTG 2375	Introduction to GIS	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 1330	Civil Drafting I	3
Semester Total		15

Second Semester - Spring

ARCE 1352	Structural Drafting	3
DFTG 2370	Intermediate CAD (Microstation)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
SRVY 2348	Plane Surveying	3
DFTG 2374	Civil 3D OR	
DFTG 2338	Final Project - Advanced Drafting (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - CIVIL SPECIALIZATION**

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
	Semester Total	6

Second Semester - Spring

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
SRVY 1301	Introduction to Surveying	3
DFTG 1330	Civil Drafting I	3
	Semester Total	12

Third Semester - Summer

SRVY 1341	Land Surveying	3
ARCE 1352	Structural Drafting	3
DFTG 2374	Civil 3-D OR	
DFTG 2338	Final Project - Advanced Drafting (Capstone)	3
	Semester Total	9

Total Minimum Credits for the Level 1 Certificate **27**

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - ELECTRICAL SPECIALIZATION
 Associate of Applied Science** **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
	Semester Total	15

Second Semester - Spring

DFTG 1333	Mechanical Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 1329	Electro-Mechanical Drafting	3
MATH 1316	Plane Trigonometry	3
	Semester Total	15

SECOND YEAR

First Semester - Fall

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2317	Descriptive Geometry	3
DFTG 1358	Electrical/Electronics Drafting	3
DFTG 2340	Solid Modeling/Design	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
	Semester Total	15

Second Semester - Spring

DFTG 2335	Advanced Technologies in Mechanical Design & Drafting	3
DFTG 2302	Machine Drafting	3
DFTG 2305	Printed Circuit Board Design OR	
XXXX #3## ²	Program Approved Elective	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2307	Electrical Drafting (Capstone)	3
	Semester Total	15

Total Minimum Credits for the AAS Degree **60**

1 A list of electives appears in the Core Curriculum section of this catalog.
 2 Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - ELECTRICAL SPECIALIZATION**

Certificate - Level 1 **SCH**

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
Semester Total		6

Second Semester - Spring

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 1333	Mechanical Drafting	3
DFTG 1358	Electrical/Electronics Drafting	3
Semester Total		12

Third Semester - Summer

DFTG 2335	Advanced Technologies in Mechanical Design & Drafting OR	
DFTG 2340	Solid Modeling/Design	3
DFTG 1329	Electro-Mechanical Drafting	3
DFTG 2302	Machine Drafting (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **27**

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - MECHANICAL SPECIALIZATION**

Associate of Applied Science **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 1333	Mechanical Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2340	Solid Modeling/Design	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 2335	Advanced Technologies in Mechanical Design & Drafting	3
DFTG 2317	Descriptive Geometry	3
DFTG 2306	Machine Design	3
DFTG 2302	Machine Drafting	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2338	Final Project - Advanced Drafting OR	
DFTG 2381	Cooperative Education - Drafting & Design Technology/Technician, General	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ²	Program Approved Elective	3
DFTG 2358	Advanced Machine Design (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
DRAFTING - MECHANICAL SPECIALIZATION**

Certificate - Level 1 **SCH**

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 1333 Mechanical Drafting 3

DFTG 2319 Intermediate Computer-Aided Drafting 3

DFTG 2317 Descriptive Geometry 3

DFTG 2340 Solid Modeling/Design 3

Semester Total 12

Third Semester - Summer

DFTG 2302 Machine Drafting 3

DFTG 2335 Advanced Technologies in Mechanical Design & Drafting 3

DFTG 2306 Machine Design (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - PIPE SPECIALIZATION
 Associate of Applied Science** **SCH**

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2323	Pipe Drafting	3
DFTG 1333	Mechanical Drafting	3
DFTG 2317	Descriptive Geometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 1395	Special Topics in Mechanical Drafting & Mechanical Drafting CAD/CADD	3
DFTG 2308	Instrumentation Drafting	3
XXXX #3## ²	Program Approved Elective	3
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2340	Solid Modeling/Design	3
DFTG 1372	Smart Plant 3D Drafting OR	
DFTG 2373	Piping Design Management Systems (PDMS)	3
ARCE 1352	Structural Drafting	3
DFTG 2345	Advanced Pipe Drafting (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

**DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED
 DRAFTING - PIPE SPECIALIZATION**

Certificate - Level 1 **SCH**

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
Semester Total		6

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 2323	Pipe Drafting	3
DFTG 1333	Mechanical Drafting	3
DFTG 2308	Instrumentation Drafting	3
Semester Total		12

Third Semester - Summer

ARCE 1352	Structural Drafting	3
DFTG 1395	Special Topics in Mechanical Drafting & Mechanical Drafting CAD/CADD AutoPlant Isometrics OR	
DFTG 1372	Smart Plant 3D Drafting	3
DFTG 2345	Advanced Pipe Drafting (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **27**

ELECTRONICS ENGINEERING TECHNOLOGY

ELECTRONICS ENGINEERING TECHNOLOGY - BIOMEDICAL ELECTRONICS SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4
Semester Total		13

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		14

Third Semester - Summer

PHYS 1401	College Physics I (Lecture & Lab)	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		7

SECOND YEAR

First Semester - Fall

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices	4
BIOM 1309	Applied Biomedical Equipment Technology	3
CETT 1431	Programming for Discrete Electronic Devices	4
Semester Total		15

Second Semester - Spring

BIOM 2331	Biomedical Clinical Instrumentation	3
HPRS 1206	Essentials of Medical Terminology	2
BIOM 2389	Internship - Biomedical Technology/Technician	3
CETT 1357	Linear Integrated Circuits (Capstone)	3
Semester Total		11

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER ENGINEERING SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4
Semester Total		16

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		14

Third Semester - Summer

PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		4

SECOND YEAR

First Semester - Fall

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices	4
CETT 1431	Programming for Discrete Electronic Devices	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

XXXX #4## ²	Program Approved Elective	4
XXXX #4## ²	Program Approved Elective	4
CETT 1357	Linear Integrated Circuits (Capstone)	3
Semester Total		11

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Any CETT or CPMT elective.

ELECTRONICS ENGINEERING TECHNOLOGY - BASIC ELECTRONICS

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4
Semester Total		13

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3
Semester Total		11

Third Semester - Summer

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices (Capstone)	4
CPMT 1303	Introduction to Computer Technology	3
XXXX #4## ¹	Program Approved Elective	4
XXXX #4## ¹	Program Approved Elective	4
Semester Total		19

Total Minimum Credits for the Level 2 Certificate

43

¹ Any CETT or CPMT elective; TECM 1301 or 1303.

ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER SERVICING/NETWORKS

Certificate - Level 1 **SCH**

First Semester - Fall

CPMT 1303	Introduction to Computer Technology	3
CPMT 1411	Introduction to Computer Maintenance OR	
XXXX #4## ¹	Program Approved Elective	4
Semester Total		7

Second Semester - Spring

CETT 1321	Electronic Fabrication	3
TECM 1301	Industrial Mathematics OR	
XXXX #3## ¹	Program Approved Elective	3
CPMT 1449	Computer Networking Technology (Capstone)	4
Semester Total		10

Total Minimum Credits for the Level 1 Certificate **17**

¹ Any CETT or CPMT elective; or TECM 1303.

EMERGENCY MEDICAL SERVICES

EMERGENCY MEDICAL SERVICES

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3
Semester Total		17

Second Semester - Spring

EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2306	Emergency Pharmacology	3
EMSP 2444	Cardiology	4
EMSP 2160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
ENGL 1301	Composition I	3
Semester Total		17

SECOND YEAR

First Semester - Fall

EMSP 2434	Medical Emergencies	4
EMSP 2261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2330	Special Populations	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		16

Second Semester - Spring

EMSP 2262	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
EMSP 2243	Assessment Based Management (Capstone)	2
Semester Total		10

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

EMERGENCY MEDICAL SERVICES - ADVANCED TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
Semester Total		6

Second Semester - Spring

EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3
EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic) (Capstone)	2
Semester Total		13

Total Minimum Credits for the Level 1 Certificate **19**

EMERGENCY MEDICAL SERVICES - PARAMEDIC

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3
Semester Total		17

Second Semester - Spring

EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2306	Emergency Pharmacology	3
EMSP 2444	Cardiology	4
EMSP 2160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
Semester Total		10

SECOND YEAR

First Semester - Fall

EMSP 2434	Medical Emergencies	4
EMSP 2261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2330	Special Populations	3
Semester Total		9

Second Semester - Spring

EMSP 2262	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2243	Assessment Based Management (Capstone)	2
Semester Total		4

Total Minimum Credits for the Level 1 Certificate **40**

EMERGENCY MEDICAL SERVICES - RN TO PARAMEDIC

Enhanced Skills Certificate

SCH

First Semester - Fall

EMSP 1491 Special Topics in Emergency Medical Technology/Technician 4

EMSP 2553 Emergency Medical Services Certification for Health Care Professionals 5

Semester Total 9

Total Minimum Credits for the Enhanced Skills Certificate 9

FASHION DESIGN

FASHION DESIGN

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
FSHD 1313	Art for Fashion	3
FSHD 1324	Ready-to-Wear Construction	3
FSHD 1322	Fashion Sketching	3
Semester Total		15

Second Semester - Spring

FSHN 1301	Textiles	3
FSHD 1328	Flat Pattern Design I	3
FSHD 1351	Design Construction Techniques	3
FSHD 1372	Knitwear Construction OR	
FSHD 1373	Advanced Eveningwear	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Third Semester - Summer

FSHD 2306	Draping	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
FSHD 1355	Flat Pattern Design II	3
FSHD 1318	Apparel Computer Systems	3
FSHD 2343	Fashion Collection Design	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
FSHD 1311	Fashion History	3
FSHD 2388	Internship-Fashion/Apparel Design	3
FSHD 2344	Fashion Collection Production (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

FASHION DESIGN - COMMERCIAL SAMPLE MAKER

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1324	Ready-to-Wear Construction	3
FSHD 1318	Apparel Computer Systems	3
FSHN 1305	Apparel Alterations	3
Semester Total		9

Second Semester - Spring

FSHD 1351	Design Construction Techniques	3
FSHD 1328	Flat Pattern Design I	3
FSHD 1372	Knitwear Construction	3
FSHD 2306	Draping	3
Semester Total		12

Third Semester - Summer

FSHD 1355	Flat Pattern Design II	3
FSHD 2337	Couture Dressmaking	3
FSHD 2341	Pattern Grading	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate **33**

FASHION DESIGN - DIGITAL DESIGN

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1324 Ready-to-Wear Construction 3

FSHD 1318 Apparel Computer Systems 3

FSHD 1322 Fashion Sketching 3

Semester Total 9

Second Semester - Spring

FSHN 1301 Textiles 3

FSHD 1328 Flat Pattern Design I 3

FSHD 2305 Computer Aided Apparel Design 3

Semester Total 9

Third Semester - Summer

FSHN 2432 Advanced Pattern Drafting 4

FSHD 2388 Internship-Fashion/Apparel Design (Capstone) 3

FSHD 2341 Pattern Grading 3

Semester Total 10

Total Minimum Credits for the Level 1 Certificate 28

FASHION DESIGN - MEN'S TAILORING & ALTERATIONS

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHD 1318	Apparel Computer Systems	3
FSHD 1324	Ready-to-Wear Construction	3
FSHN 1301	Textiles	3
Semester Total		12

Second Semester - Spring

FSHN 1305	Apparel Alterations	3
FSHN 1329	Basic Men's Tailoring	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

FASHION DESIGN - PATTERNMAKING

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHD 1313	Art for Fashion	3
FSHD 1328	Flat Pattern Design I	3
FSHN 1301	Textiles	3
FSHD 1318	Apparel Computer Systems	3

Semester Total **15**

Second Semester - Spring

FSHD 1332	Custom Patterns	3
FSHD 1355	Flat Pattern Design II	3
FSHD 2306	Draping	3
FSHD 2341	Pattern Grading	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3

Semester Total **15**

Total Minimum Credits for the Level 1 Certificate **30**

FASHION DESIGN - THEATRICAL COSTUME DESIGN

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
FSHN 1301	Textiles	3
FSHD 1313	Art for Fashion	3
FSHD 1322	Fashion Sketching	3
FSHD 1324	Ready-to-Wear Construction	3
FSHD 1235	Millinery	2
Semester Total		17

Second Semester - Spring

FSHD 1328	Flat Pattern Design I	3
FSHD 1351	Design Construction Techniques	3
FSHD 2315	Bustier Construction OR	
FSHD 1372	Advanced Eveningwear	3
FSHD 1332	Custom Patterns	3
FSHD 1372	Knitwear Construction	3
FSHD 1311	Fashion History	3
Semester Total		18

Third Semester - Summer

FSHD 2306	Draping	3
FSHD 2310	Fabric Design	3
FSHN 1329	Basic Men's Tailoring	3
FSHD 2312	Theatrical Costume Design	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 2 Certificate **50**

FASHION MERCHANDISING

FASHION MERCHANDISING

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
XXXX #3## ¹	General Education Elective	3
FSHD 1324	Ready-to-Wear Construction	3
Semester Total		15

Second Semester - Spring

FSHN 1320	Fashion Selling	3
FSHD 1311	Fashion History	3
FSHD 1318	Apparel Computer Systems	3
Semester Total		9

Third Semester - Summer

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		12

SECOND YEAR

First Semester - Fall

FSHN 2303	Fashion Buying	3
FSHN 2307	Fashion Advertising	3
FSHN 2320	Visual Merchandising	3
MRKG 1311	Principles of Marketing	3
Semester Total		12

Second Semester - Spring

FSHN 2301	Fashion Promotion	3
FSHN 2305	Fashion Retailing	3
FSHN 2309	Fashion Image	3
FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

FASHION MERCHANDISING - FASHION IMAGE MERCHANDISING

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
FSHD 1313	Art for Fashion	3
FSHD 1324	Ready-to-Wear Construction	3
Semester Total		12

Second Semester - Spring

FSHN 1320	Fashion Selling	3
FSHN 2301	Fashion Promotion	3
FSHN 2309	Fashion Image	3
FSHD 1311	Fashion History	3
FSHD 1318	Apparel Computer Systems	3
Semester Total		15

Third Semester - Summer

FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 1 Certificate **30**

FASHION MERCHANDISING - VISUAL MERCHANDISING

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
FSHD 1313	Art for Fashion	3
Semester Total		9

Second Semester - Spring

FSHN 2303	Fashion Buying	3
FSHN 2305	Fashion Retailing	3
FSHD 1318	Apparel Computer Systems	3
FSHD 1322	Fashion Sketching	3
FSHN 2301	Fashion Promotion	3
Semester Total		15

Third Semester - Summer

FSHN 2307	Fashion Advertising	3
FSHN 2320	Visual Merchandising	3
FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **33**

FILMMAKING

FILMMAKING - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RTVB 1321	TV/Video Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film & Video Editing	3
FLMC 1311	Survey of the Motion Picture	3
Semester Total		15

Second Semester - Spring

RTVB 2337	TV/Video Production Workshop I	3
RTVB 1329	Scriptwriting	3
FLMC 1300	Production Management	3
ARTS 1304	Art History II (14th century to present)	3
FLMC 2344	Advanced Film & Video Editing	3
Semester Total		15

Third Semester - Summer

XXXX #3## ¹	General Education Elective	3
FLMC 1304	Lighting for Film or Video	3
Semester Total		6

SECOND YEAR

First Semester - Fall

FLMC 2334	Directing for Film or Video	3
FLMC 2333	Cinematography	3
FLMC 2335	Screenwriting for Features, Shorts & Documentaries	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

FLMC 2330	Audio Post Production	3
FLMC 2336	Production Development - Producing	3
XXXX #3## ¹	Math/Natural Science Elective	3
RTVB 2340	Portfolio Development (Capstone) OR	
FLMC 2380	Cooperative Education - Cinematography and Film/Video Production	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

FILMMAKING - EDITING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

FLMC 1311	Survey of the Motion Picture	3
RTVB 1321	TV/ Video Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film and Video Editing	3
	Semester Total	12

Second Semester - Spring

FLMC 1300	Production Management	3
FLMC 1331	Video Graphics & Visual Effects I OR	
FLMC 2344	Advanced Film & Video Editing	3
FLMC 2330	Audio Post Production	3
FLMC 2380	Cooperative Education - Cinematography and Film/Video Production (Capstone)	3
	Semester Total	12

Total Minimum Credits for the Level 1 Certificate **24**

FILMMAKING - FILM/VIDEO PRODUCTION SPECIALIZATION**Certificate - Level 1****SCH****First Semester - Fall**

RTVB 1309	Audio/Radio Production I	3
RTVB 1321	TV/ Video Field Production	3
RTVB 2330	Film & Video Editing	3
FLMC 1311	Survey of the Motion Picture	3
Semester Total		12

Second Semester - Spring

FLMC 1300	Production Management	3
RTVB 1329	Scriptwriting	3
FLMC 2344	Advanced Film & Video Editing	3
RTVB 2337	TV/Video Production Workshop I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate**24**

FILMMAKING - SCREENWRITING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

FLMC 1311	Survey of the Motion Picture	3
RTVB 1321	TV/ Video Field Production	3
RTVB 1329	Scriptwriting	3
RTVB 2330	Film & Video Editing	3
Semester Total		12

Second Semester - Spring

FLMC 2335	Screenwriting for Features, Shorts & Documentaries	3
FLMC 1300	Production Management	3
FLMC 2336	Production Developing - Producing	3
FLMC 2380	Cooperative Education - Cinematography and Film/Video Production (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

FILMMAKING - GENERAL

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RTVB 1321	TV/Video Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film & Video Editing	3
FLMC 1311	Survey of the Motion Picture	3
Semester Total		15

Second Semester - Spring

RTVB 2337	TV/Video Production Workshop I	3
RTVB 1329	Scriptwriting	3
FLMC 1300	Production Management	3
FLMC 2344	Advanced Film & Video Editing	3
Semester Total		12

Third Semester - Summer

FLMC 1304	Lighting for Film or Video	3
Semester Total		3

SECOND YEAR

First Semester - Fall

FLMC 2334	Directing for Film or Video	3
FLMC 2333	Cinematography	3
FLMC 2335	Screenwriting for Features, Shorts & Documentaries	3
Semester Total		9

Second Semester - Spring

FLMC 2330	Audio Post Production	3
FLMC 2336	Production Development - Producing	3
RTVB 2340	Portfolio Development (Capstone) OR	
FLMC 2380	Cooperative Education - Cinematography and Film/Video Production	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **48**

FIRE SCIENCE & SAFETY

FIRE SCIENCE & SAFETY - FIREFIGHTER

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
FIRS 1301	Firefighter Certification I	3
FIRS 1407	Firefighter Certification II	4
FIRS 1313	Firefighter Certification III	3
Semester Total		13

Second Semester - Spring

FIRS 1319	Firefighter Certification IV	3
FIRS 1423	Firefighter Certification V	4
FIRS 1329	Firefighter Certification VI	3
FIRS 1433	Firefighter Certification VII	4
FIRS 1203	Firefighter Agility & Fitness Preparation	2
Semester Total		16

SECOND YEAR

First Semester - Fall

CHEM 1305	Introductory Chemistry I (Lecture)	3
FIRT 1327	Building Construction in the Fire Service	3
GOVT 2306	Texas Government	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
FIRT 2309	Firefighting Strategies & Tactics I	3
PSYC 2301	General Psychology	3
Semester Total		18

Second Semester - Spring

FIRT 1309	Fire Administration I	3
FIRT 1338	Fire Protection Systems	3
FIRT 1315	Hazardous Materials I	3
FIRT 1303	Fire & Arson Investigation I	3
FIRT 2188	Internship - Emergency Management (Capstone)	1
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

FIRE SCIENCE & SAFETY - BASIC FIREFIGHTER

Certificate - Level 1

SCH

First Semester - Fall

FIRS 1301	Firefighter Certification I	3
FIRS 1407	Firefighter Certification II	4
FIRS 1313	Firefighter Certification III	3
FIRS 1203	Firefighter Agility & Fitness Preparation	2

Semester Total

12

Second Semester - Spring

FIRS 1319	Firefighter Certification IV	3
FIRS 1423	Firefighter Certification V	4
FIRS 1329	Firefighter Certification VI	3
FIRS 1433	Firefighter Certification VII (Capstone)	4

Semester Total

14

Total Minimum Credits for the Level 1 Certificate

26

FIRE SCIENCE & SAFETY - FIRE & ARSON INVESTIGATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CRIJ 1301	Introduction to Criminal Justice	3
ENGL 1301	Composition I	3
CRIJ 2323	Legal Aspects of Law Enforcement	3
FIRT 1338	Fire Protection Systems	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
CRIJ 1307	Crime in America	3
CRIJ 1310	Fundamentals of Criminal Law	3
FIRT 1327	Building Construction in the Fire Service	3
Semester Total		15

SECOND YEAR

First Semester - Fall

CHEM 1305	Introductory Chemistry I (Lecture)	3
CRIJ 2314	Criminal Investigation	3
FIRT 1303	Fire & Arson Investigation I	3
XXXX #3## ¹	General Education Elective	3
FIRT 1315	Hazardous Materials I	3
Semester Total		15

Second Semester - Spring

CRIJ 1306	Court Systems & Practices	3
CRIJ 2328	Police Systems & Practices	3
FIRT 1345	Hazardous Materials II	3
FIRT 2333	Fire & Arson Investigation II	3
FIRT 2380	Cooperative Education-Fire Protection & Safety Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

FIRE SCIENCE & SAFETY - FIRE & ARSON INVESTIGATOR

Occupational Skills Award

SCH

First Semester - Fall

FIRT 1301	Fundamentals of Fire Protection	3
FIRT 1303	Fire & Arson Investigation I	3
FIRT 2333	Fire & Arson Investigation II	3
Semester Total		9
Total Minimum Credits for the Occupational Skills Award		9

FIRE SCIENCE & SAFETY - FIRE OFFICER

Certificate - Level 1

SCH

First Semester - Fall

FIRT 1307 Fire Prevention Codes & Inspections 3

FIRT 1309 Fire Administration I 3

FIRT 1303 Fire & Arson Investigation I 3

Semester Total 9

Second Semester - Spring

FIRT 2309 Firefighting Strategies & Tactics I 3

FIRT 2305 Fire Instructor I 3

FIRT 2351 Company Fire Officer **OR**

FIRT 1342 Fire Officer I (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

FIRE SCIENCE & SAFETY - FIRE INSTRUCTOR

Occupational Skills Award

SCH

First Semester - Fall

FIRT 2305 Fire Instructor I 3

Semester Total 3

Second Semester - Spring

FIRT 2307 Fire Instructor II 3

Semester Total 3

Third Semester - Summer

FIRT 2459 Fire Instructor III 4

Semester Total 4

Total Minimum Credits for the Occupational Skills Award 10

FIRE SCIENCE & SAFETY - FIRE INSPECTOR

Occupational Skills Award

SCH

First Semester - Fall

FIRT 1408 Fire Inspector I 4

FIRT 1340 Fire Inspector II 3

FIRT 1202 Plan Examiner I 2

Semester Total 9

Total Minimum Credits for the Occupational Skills Award 9

GEOGRAPHIC INFORMATION SCIENCE

GEOGRAPHIC INFORMATION SCIENCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
GISC 1411	Introduction to Geographic Information Systems (GIS)	4
Semester Total		13

Second Semester - Spring

GEOG 1301	Physical Geography	3
GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems	4
GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
COSC 1436	Programming Fundamentals I	4
Semester Total		15

Third Semester - Summer

ITSE 1345	Introduction to Oracle SQL	3
DFTG 1309	Basic Computer-Aided Drafting	3
Semester Total		6

SECOND YEAR

First Semester - Fall

GISC 2401	Data Acquisition & Analysis in Geographic Information Systems (GIS)	4
GISC 2250	Scripting for Geographic Information Systems (GIS)	2
GISC 2411	Geographic Information Systems (GIS) Applications	4
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Second Semester - Spring

GEOL 1403	Physical Geology	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
GISC 2359	Web-Served Geographic Information Systems (GIS) (Capstone)	3
GISC 2364	Practicum - Cartography OR	
GISC 2380	Cooperative Education - Cartography OR	
GISC 1491	Special Topics in Cartography	3
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

GEOGRAPHIC INFORMATION SCIENCE - TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

GISC 1411	Introduction to Geographic Information Systems (GIS)	4
COSC 1436	Programming Fundamentals I	4
GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems (Capstone)	4
Semester Total		12

Second Semester - Spring

GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
GISC 2359	Web-Served Geographic Information Systems (GIS)	3
GISC 2364	Practicum - Cartography OR	
GISC 2380	Cooperative Education - Cartography	3
Semester Total		10

Total Minimum Credits for the Level 1 Certificate **22**

GEOGRAPHIC INFORMATION SCIENCE - ANALYST

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GISC 1411	Introduction to Geographic Information Systems (GIS)	4
MATH 1314	College Algebra	3
COSC 1436	Programming Fundamentals I OR	
ITSE 1402	Computer Programming	4
	Semester Total	14

Second Semester - Spring

GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems	4
GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
ITSE 1345	Introduction to Oracle SQL	3
	Semester Total	11

Third Semester - Summer

GISC 2401	Data Acquisition & Analysis in Geographic Information Systems (GIS)	4
GISC 2411	Geographic Information Systems (GIS) Applications	4
	Semester Total	8

SECOND YEAR

First Semester - Fall

GISC 2250	Scripting for Geographic Information Systems (GIS)	2
GISC 2359	Web-Served Geographic Information Systems (GIS) (Capstone)	3
	Semester Total	5

Total Minimum Credits for the Level 2 Certificate

38

HEALTH INFORMATION TECHNOLOGY

HEALTH INFORMATION TECHNOLOGY

Associate of Applied Science

SCH

Prerequisite Semester

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ENGL 1301	Composition I	3
Semester Total		6

FIRST YEAR

First Semester - Fall

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
HPRS 1201	Introduction to Health Professions	2
HITT 1301	Health Data Content & Structure	3
HITT 1166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
POFI 1301	Computer Applications I	3
Semester Total		13

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HITT 1305	Medical Terminology I	3
HITT 1345	Health Care Delivery Systems	3
HITT 1167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
HITT 1255	Health Care Statistics	2
Semester Total		13

Third Semester - Summer

HITT 1249	Pharmacology	2
HPRS 2201	Pathophysiology	2
Semester Total		4

SECOND YEAR**First Semester - Fall**

HITT 1341	Coding & Classification Systems	3
HITT 1253	Legal & Ethical Aspects of Health Information	2
HITT 2343	Quality Assessment & Performance Improvement	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		11

Second Semester - Spring

HITT 2335	Coding & Reimbursement Methodologies	3
HITT 2239	Health Information Organization & Supervision	2
HITT 1211	Health Information Systems	2
HITT 2166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
XXXX #3## ¹	General Education Elective	3
Semester Total		11

Third Semester - Summer

HITT 2149	RHIT Competency Review	1
HITT 2167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
Semester Total		2

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

HEALTH INFORMATION TECHNOLOGY - ANALYSIS

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
Semester Total		2

First Semester - Fall

HITT 1305	Medical Terminology I	3
HITT 1301	Health Data Content & Structure	3
HITT 1166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
POFI 1301	Computer Applications I	3
Semester Total		10

Second Semester - Spring

HITT 1345	Health Care Delivery Systems	3
HITT 1255	Health Care Statistics	2
HITT 1167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
Semester Total		6

Total Minimum Credits for the Level 1 Certificate **18**

HEALTH INFORMATION TECHNOLOGY- CODING

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

HPRS 1201	Introduction to Health Professions	2
HITT 1301	Health Data Content & Structure	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		9

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HITT 1345	Health Care Delivery Systems	3
HITT 1253	Legal & Ethical Aspects of Health Information	2
HITT 1305	Medical Terminology I	3
Semester Total		12

Third Semester - Summer

HITT 1249	Pharmacology	2
HPRS 2201	Pathophysiology	2
Semester Total		4

SECOND YEAR

First Semester - Fall

HITT 1341	Coding & Classification Systems	3
POFI 1301	Computer Applications I	3
Semester Total		6

Second Semester - Spring

HITT 2335	Coding & Reimbursement Methodologies	3
HITT 1211	Health Information Systems	2
HITT 2166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
Semester Total		6

Total Minimum Credits for the Level 2 Certificate		37
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HEATING, AIR CONDITIONING & REFRIGERATION

Heating, Air Conditioning & Refrigeration

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ELPT 1315	Electrical Calculations I	3
HART 1301	Basic Electricity for HVAC	3
HART 1356 ²	EPA Recovery Certification Preparation	3
XXXX #3## ¹	General Education Elective	3
Semester Total		15

Second Semester - Spring

HART 1303	Air Conditioning Control Principles	3
HART 1307	Refrigeration Principles	3
HART 1341 ³	Residential Air Conditioning	3
HART 1345 ³	Gas & Electric Heating	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3
Semester Total		15

Third Semester - Summer

HART 2334 ³	Advanced Air Conditioning Controls	3
HART 2341	Commercial Air Conditioning	3
HART 2345	Residential Air Conditioning Systems Design OR	
HART 2302	Commercial Air Conditioning System Design	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
XXXX #3## ²	Math/Natural Science Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

HART 2336	Air Conditioning Troubleshooting (Capstone)	3
HART 2342 ²	Commercial Refrigeration	3
HART 2349 ²	Heat Pumps	3
HART 2374	Building Control Systems	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Employment Ready (ER) certification required.

³ EPA certification required.

**HEATING, AIR CONDITIONING & REFRIGERATION - ADVANCED
 Certificate - Level 1**

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1356 ¹	EPA Recovery Certification Preparation	3

Semester Total 12

Second Semester - Spring

HART 1303	Air Conditioning Control Principles	3
HART 1341	Residential Air Conditioning	3
HART 1345	Gas & Electric Heating	3
HART 2342	Commercial Refrigeration	3
HART 2334	Advanced Air Conditioning Controls	3

Semester Total 15

Third Semester - Summer

HART 2336	Air Conditioning Troubleshooting (Capstone)	3
HART 2341	Commercial Air Conditioning	3
HART 2349	Heat Pumps	3
HART 2302	Commercial Air Conditioning System Design	3
HART 2345	Residential Air Conditioning Systems Design	3

Semester Total 15

Total Minimum Credits for the Level 1 Certificate 42

¹ *Employment Ready (ER) certification required.*

**HEATING, AIR CONDITIONING & REFRIGERATION - BASIC
Certificate - Level 1**

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
HART 1301	Basic Electricity for HVAC	3
HART 1356 ¹	EPA Recovery Certification Preparation	3

Semester Total **9**

Second Semester - Spring

HART 1303	Air Conditioning Control Principles	3
HART 1307	Refrigeration Principles	3
HART 1341	Residential Air Conditioning (Capstone)	3
HART 1345	Gas & Electric Heating	3

Semester Total **12**

Total Minimum Credits for the Level 1 Certificate **21**

¹ *Employment Ready (ER) certification required.*

HEAVY TRUCK, DIESEL, AND INDUSTRIAL TECHNOLOGY

HEAVY TRUCK, DIESEL, AND INDUSTRIAL TECHNOLOGY

Certificate - Level 1		SCH
First Semester - Fall		
DEMR 1301	Shop Safety & Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1310	Diesel Engine Testing & Repair I	3
DEMR 2312	Diesel Engine Testing & Repair II	3
Semester Total		12
Second Semester - Spring		
DEMR 1305	Basic Electrical Systems	3
DEMR 2332	Electronic Controls	3
DEMR 2439	Advanced Electrical Systems	4
DEMR 1323	Heating, Ventilation, & Air Conditioning (HVAC) Troubleshooting & Repair	3
Semester Total		13
Third Semester - Summer		
DEMR 1329	Preventative Maintenance	3
DEMR 1316	Basic Hydraulics	3
DEMR 1330	Steering & Suspension I	3
DEMR 1342	Power Train Applications I	3
DEMR 1381	Cooperative Education-Diesel Mechanics Technology/Technician (Capstone)	3
Semester Total		15
Total Minimum Credits for the Level 1 Certificate		40

**HEAVY TRUCK, DIESEL, AND INDUSTRIAL TECHNOLOGY - DIESEL
PREVENTATIVE MAINTENANCE**

Occupational Skills Award **SCH**

First Semester - Fall

DEMR 1301	Shop Safety & Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1310	Diesel Engine Testing & Repair I	3
DEMR 2312	Diesel Engine Testing & Repair II	3

Semester Total **12**

Total Minimum Credits for the Occupational Skills Award **12**

HISTOLOGIC TECHNICIAN

HISTOLOGIC TECHNICIAN

Associate of Applied Science

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (LAB)	1
Semester Total		12

FIRST YEAR

First Semester - Fall

CHEM 1311	General Chemistry I (Lecture) OR	
CHEM 1305	Introductory Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab) OR	
CHEM 1105	Introductory Chemistry I (Lab)	1
HLAB 1305	Functional Histology I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
HLAB 1301	Introduction to Histotechnology	3
Semester Total		14

Second Semester - Spring

HLAB 1402	Histotechnology I	4
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HLAB 1346	Functional Histology II	3
Semester Total		11

Third Semester - Summer

HLAB 1266	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 1443	Histotechnology II	4
XXXX #3##1	Social / Behavioral Science Elective	3
Semester Total		9

SECOND YEAR

First Semester - Fall

HLAB 1267	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 2434	Histotechnology III	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Second Semester - Spring

HLAB 1268	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 2341	Registry Review (Capstone)	3
Semester Total		5

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

HOSPITALITY ADMINISTRATION

HOSPITALITY MANAGEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
HAMG 1321	Introduction to Hospitality Industry	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
Semester Total		12

Second Semester - Spring

CHEF 1205	Sanitation & Safety	2
HAMG 1313	Front Office Management	3
CHEF 1313	Food Service Operation/Systems	3
ENGL 1302	Composition II	3
ITSC 1309	Integrated Software Applications I	3
Semester Total		14

Third Semester - Summer

XXXX #3## ¹	General Education Elective	3
ECON 2301	Principles of Macroeconomics	3
XXXX #3## ¹	General Education Elective	3
Semester Total		9

SECOND YEAR

First Semester - Fall

RSTO 1325	Purchasing for Hospitality Operations	3
HAMG 1324	Hospitality Human Resources Management	3
HAMG 1340	Hospitality Legal Issues	3
ACNT 1303	Introduction to Accounting I	3
Semester Total		12

Second Semester - Spring

HAMG 2305	Hospitality Management & Leadership	3
HAMG 2307	Hospitality Marketing & Sales	3
XXXX #3## ¹	Humanities / Fine Arts Elective	3
HAMG 2480	Cooperative Education- Hospitality Administration/Management, General (Capstone)	4
Semester Total		13

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

HOTEL MANAGEMENT

Certificate - Level 1

SCH

First Semester - Fall

HAMG 1321	Introduction to Hospitality Industry	3
ACNT 1303	Introduction to Accounting I	3
HAMG 1313	Front Office Management	3
HAMG 1324	Hospitality Human Resources Management	3
ITSC 1309	Integrated Software Applications I	3
Semester Total		15

Second Semester - Spring

HAMG 2305	Hospitality Management & Leadership	3
HAMG 1340	Hospitality Legal Issues	3
HAMG 1342	Guest Room Management	3
HAMG 2337	Hospitality Facilities Management	3
HAMG 2280	Cooperative Education- Hospitality Administration/Management, General (Capstone)	2
Semester Total		14

Total Minimum Credits for the Level 1 Certificate **29**

RESTAURANT MANAGEMENT

Certificate - Level 1

SCH

First Semester - Fall

HAMG 1321	Introduction to Hospitality Industry	3
ACNT 1303	Introduction to Accounting I	3
CHEF 1205	Sanitation & Safety	2
HAMG 1324	Hospitality Human Resources Management	3
CHEF 1313	Food Service Operation/Systems	3
Semester Total		14

Second Semester - Spring

HAMG 2305	Hospitality Management & Leadership	3
HAMG 1340	Hospitality Legal Issues	3
RSTO 1301	Beverage Management	3
RSTO 2301	Principles of Food and Beverage Controls	3
HAMG 2280	Cooperative Education- Hospitality Administration/Management, General (Capstone)	2
Semester Total		14

Total Minimum Credits for the Level 1 Certificate **28**

EVENT, MEETING, AND CONFERENCE PLANNING

Certificate - Level 2

SCH

PENDING SACS-COC APPROVAL

First Semester - Fall

EDUC 1300	Learning Framework	3
HAMG 1321	Introduction to Hospitality Industry	3
TRVM 1327	Special Events Design	3
HAMG 1324	Hospitality Human Resources Management	3
HAMG 1340	Hospitality Legal Issues	3
Semester Total		15

Second Semester - Spring

HAMG 2330	Convention and Group Management Services	3
SPCH 1311	Introduction to Speech Communication	3
RSTO 2301	Principles of Food and Beverage Controls	3
HAMG 2307	Hospitality Marketing & Sales	3
HAMG 2380	Cooperative Education- Hospitality Administration/Management, General (Capstone)	3
Semester Total		15

Second Semester - Summer

CHEF 1205	Sanitation & Safety	2
Semester Total		2

Total Minimum Credits for the Level 2 Certificate **32**

HUMAN SERVICE TECHNOLOGY

HUMAN SERVICE TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

XXXX #3## ²	Program Approved Elective	3
HPRS 1201	Introduction to Health Professions	2
PSYC 2301	General Psychology	3
SCWK 1321	Orientation to Social Services	3
DAAC 1417	Basic Counseling Skills	4
Semester Total		15

Second Semester - Spring

CMSW 1313	Assessment & Service Delivery	3
DAAC 2354	Dynamics of Group Counseling	3
ENGL 1301	Composition I	3
PSYC 2320	Abnormal Psychology	3
XXXX #3## ²	Program Approved Elective	3
Semester Total		15

Third Semester - Summer

CMSW 1266	Practicum-Clinical & Medical Social Worker	2
PSYC 2314	Lifespan Growth & Development	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		8

SECOND YEAR

First Semester - Fall

CMSW 1267	Practicum-Clinical & Medical Social Worker	2
DAAC 1311	Counseling Theories	3
XXXX #3## ²	Program Approved Elective	3
POFI 1301	Computer Applications I	3
Semester Total		11

Second Semester - Spring

CMSW 1353	Family Intervention Strategies	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ²	Program Approved Elective	3
CMSW 2266	Practicum-Clinical & Medical Social Worker (Capstone)	2
Semester Total		11

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Program Approved Electives (not including CMSW 2303)CHLT 1302, 1342, DAAC 1304, DAAC 1305, DAAC 1319, DAAC 2306, DAAC 2353, GERS 1301

HUMAN SERVICE TECHNOLOGY - CHEMICAL DEPENDENCY COUNSELOR

Certificate - Level 1

SCH

First Semester - Fall

HPRS 1201	Introduction to Health Professions	2
DAAC 1304	Pharmacology of Addiction	3
DAAC 1417	Basic Counseling Skills	4
CMSW 1313	Assessment & Service Delivery	3
Semester Total		12

Second Semester - Spring

DAAC 1319	Substance-Related & Addictive Disorders	3
DAAC 1305	Co-Occuring Disorders	3
XXXX #3## ¹	Program Approved Elective	3
XXXX #3## ¹	Program Approved Elective	3
Semester Total		12

Third Semester - Summer

DAAC 2267	Practicum-Substance Abuse/Addiction Counseling (Capstone)	2
Semester Total		2

Total Minimum Credits for the Level 1 Certificate **26**

¹ Program Approved Electives CMSW 1353, DAAC 1311, DAAC 2354

HUMAN SERVICE TECHNOLOGY - CERTIFIED PREVENTION SPECIALIST

Occupational Skills Award

SCH

First Semester - Fall

DAAC 2306 Substance Abuse Prevention I 3

DAAC 1304 Pharmacology of Addiction 3

Semester Total 6

Second Semester - Spring

DAAC 2353 Substance Abuse Prevention II 3

Semester Total 3

Third Semester - Summer

DAAC 1264 Practicum-Substance Abuse/Addiction Counseling 2

Semester Total 2

Total Minimum Credits for the Occupational Skills Award 11

HUMAN SERVICE TECHNOLOGY - COMMUNITY HEALTH WORKER

Occupational Skills Award

SCH

First Semester - Fall

CHLT 1302	Wellness & Health Promotion	3
CHLT 1401	Introduction to Community Health	4
Semester Total		7

Second Semester - Spring

CHLT 1291	Special Topics in Community Health Liaison	2
CHLT 1342	Community Health Field Methods	3
Semester Total		5

Third Semester - Summer

CHLT 1266	Practicum (or Field Experience) - Community Health Services/Liaison/Counseling	2
Semester Total		2

Total Minimum Credits for the Occupational Skills Award **14**

INDUSTRIAL ELECTRICITY

INDUSTRIAL ELECTRICITY - ELECTRICAL TECHNOLOGY

Associate of Applied Science

FIRST YEAR		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
ELPT 1321	Introduction to Electrical Safety and Tools	3
ELPT 1311	Basic Electrical Theory	3
ELPT 1370	Electrical Blueprint Reading	3
ELPT 1325	National Electrical Code I	3
Semester Total		15
Second Semester - Spring		
xxxx #3## ¹	Humanities/Fine Arts Elective	3
ELPT 1329	Residential Wiring	3
ELPT 1345	Commercial Wiring	3
ELMT 1302	Solar Photovoltaic Systems	
ECON 1301	Introduction to Economics OR	3
xxxx #3## ¹	General Education Elective	3
Semester Total		15
SECOND YEAR		
First Semester - Fall		
ELPT 1371	Residential Fixtures and Controls OR	
ELPT 1372	Commercial Fixtures and Controls OR	
ELPT 1373	Photovoltaic Fixtures and Controls	3
ELPT 1341	Motor Control	3
ELPT 1355	Electronic Applications	3
MATH 1332	Contemporary Mathematics	3
ELPT 2337	Electrical Planning and Estimating OR	
ELPT 2380	Cooperative Education - Electrical and Power Transmission Installation/Installer, General	3
Semester Total		15
Second Semester - Spring		
ELPT 2305	Motors and Transformers	3
ELMT 1301	Programmable Logic Controllers	3
XXXX #3## ¹	Social/Behavioral Science Elective	3
ELPT 2347	Electrical Testing and Maintenance OR	
ELPT 2381	Cooperative Education - Electrical and Power Transmission Installation/Installer, General	3
ELPT 2343	Electrical Systems Design (Capstone)	3
Semester Total		15
Total Minimum Credits for the AAS		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

INDUSTRIAL ELECTRICITY - ELECTRICAL TECHNOLOGY - COMMERCIAL

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1321	Introduction to Electrical Safety and Tools	3
ELPT 1311	Basic Electrical Theory	3
ELPT 1370	Electrical Blueprint Reading OR	
ELPT 1315	Electrical Calculations I	3
	Semester Total	9

Second Semester - Spring

	Cooperative Education - Electrical and Power Transmission	
ELPT 1380	Installation/Installer, General OR	
ELPT 1325	National Electrical Code I	3
ELPT 1345	Commercial Wiring	3
ELPT 1372	Commercial Fixtures and Controls (Capstone)	3
	Semester Total	9

Total Minimum Credits for the Level 1 Certificate **18**

INDUSTRIAL ELECTRICITY - ELECTRICAL POWER TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1321	Introduction to Electrical Safety & Tools	3
ELPT 1311	Basic Electrical Theory	3
ELPT 1325	National Electrical Code I	3
ELPT 1370	Electrical Blueprint Reading	3
Semester Total		12

Second Semester - Spring

ELPT 1329	Residential Wiring	3
ELPT 1371	Residential Fixtures and Controls	3
ELPT 1341	Motor Control	3
ELPT 1345	Commercial Wiring	3
Semester Total		12

Third Semester - Summer

ELMT 1301	Programmable Logic Controllers	3
ELPT 1355	Electronic Applications	3
ELPT 2337	Electrical Planning & Estimating (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **33**

INDUSTRIAL ELECTRICITY - INDUSTRIAL AUTOMATION TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1321	Introduction to Electrical Safety & Tools	3
ELPT 1311	Basic Electrical Theory	3
ELPT 1370	Electrical Blueprint Reading	3
ELPT 1325	National Electrical Code I	3
HYDR 1345	Hydraulics & Pneumatics	3
Semester Total		15

Second Semester - Spring

ELPT 1341	Motor Control	3
ELMT 1301	Programmable Logic Controllers	3
ELPT 1355	Electronic Applications	3
Semester Total		9

Third Semester - Summer

ELPT 2419	Programmable Logic Controllers I	4
INCR 1302	Physics of Instrumentations	3
ELPT 2449	Industrial Automation (Capstone)	4
Semester Total		11

Total Minimum Credits for the Level 1 Certificate **35**

INDUSTRIAL ELECTRICITY - SOLAR PHOTOVOLTAIC SYSTEM INSTALLER

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1321	Introduction to Electrical Safety & Tools	3
ELPT 1311	Basic Electrical Theory	3
ELPT 1325	National Electrical Code I	3
ELPT 1370	Electrical Blueprint Reading	3
Semester Total		12

Second Semester - Spring

ELMT 1302	Solar Photovoltaic Systems	3
ELMT 1311	Solar Fundamentals (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate **18**

INSTRUMENTATION & CONTROLS ENGINEERING TECHNOLOGY

INSTRUMENTATION & CONTROLS ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

INTC 1356	Instrumentation Calibration	3
CETT 1403	DC Circuits	4
MATH 1316	Plane Trigonometry	3
CETT 1425	Digital Fundamentals	4
CPMT 1449	Computer Networking Technology	4
Semester Total		18

SECOND YEAR

First Semester - Fall

INTC 1441	Principles of Automatic Control	4
INTC 1343	Application of Industrial Automatic Controls	3
CETT 1405	AC Circuits	4
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
RBTC 1301	Programmable Logic Controllers	3
INTC 2330	Instrumentation Systems Troubleshooting OR	
INTC 2336	Distributed Control & Programmable Logic (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

INSTRUMENTATION & CONTROLS ENGINEERING TECHNOLOGY

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
MATH 1314	College Algebra	3
INTC 1356	Instrumentation Calibration	3
Semester Total		15

Second Semester - Spring

INTC 1441	Principles of Automatic Control	4
MATH 1316	Plane Trigonometry	3
CETT 1425	Digital Fundamentals	4
CETT 1403	DC Circuits	4
Semester Total		15

Third Semester - Summer

INTC 1343	Application of Industrial Automatic Controls	3
RBTC 1301	Programmable Logic Controllers	3
INTC 2330	Instrumentation Systems Troubleshooting (Capstone)	3
XXXX #4## ¹	Program Approved Elective	4
Semester Total		13

Total Minimum Credits for the Level 2 Certificate

43

¹ Consult with an advisor to determine the appropriate elective.

INTERIOR DESIGN

INTERIOR DESIGN

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

FIRST YEAR

First Semester - Fall

INDS 1311	Fundamentals of Interior Design	3
INDS 1301	Basic Elements of Design	3
INDS 1319	Technical Drawing for Interior Designers	3
INDS 1370	History of Interiors	3
INDS 2321	Presentation Drawing	3
Semester Total		15

Second Semester - Spring

INDS 1349	Fundamentals of Space Planning	3
INDS 2307	Textiles for Interior Design	3
INDS 2305	Interior Design Graphics	3
INDS 2317	Rendering Techniques	3
Semester Total		12

Third Semester - Summer

ARTS 1303	Art History I	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

INDS 2313	Residential Design I	3
INDS 1315	Materials, Methods & Estimating	3
INDS 2271	Digital Presentation Methods	2
ARTS 1304	Art History II	3
Semester Total		11

Second Semester - Spring

INDS 1345	Commercial Design I	3
INDS 2325	Professional Practices for Interior Designers	3
INDS 2237	Portfolio Presentation (Capstone)	2
INDS 2264	Practicum (or Field Experience) - Interior Design	2
Semester Total		10

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

INTERIOR DESIGN - INTERIOR DECORATING

Certificate - Level 1

SCH

Prerequisite Semester

TECM 1301	Industrial Mathematics	3
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Semester Total		3
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First Semester - Fall

INDS 1311	Fundamentals of Interior Design	3
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INDS 1319	Technical Drawing for Interior Designers	3
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INDS 1301	Basic Elements of Design	3
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Semester Total		9
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Second Semester - Spring

INDS 2307	Textiles For Interior Design	3
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INDS 1315	Materials, Methods & Estimating	3
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INDS 2325	Professional Practices for Interior Designers (Capstone)	3
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Semester Total		9
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Total Minimum Credits for the Level 1 Certificate	21
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**INTERIOR DESIGN - KITCHEN & BATH DESIGN PROFESSIONAL
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
INDS 1311	Fundamentals of Interior Design	3
INDS 1319	Technical Drawing for Interior Designers	3
INDS 2321	Presentation Drawing	3
Semester Total		12

Second Semester - Spring

INDS 2310	Kitchen & Bath Design	3
INDS 2305	Interior Design Graphics	3
INDS 1315	Materials, Methods & Estimating	3
INDS 2317	Rendering Techniques	3
Semester Total		12

SECOND YEAR

First Semester - Fall

INDS 2370	Digital Presentation Methods	3
INDS 2330	Interior Design Building Systems	3
INDS 1341	Color Theory & Appreciation	3
INDS 2315	Lighting for Interior Designers	3
Semester Total		12

Second Semester - Spring

INDS 2371	Advanced Kitchen & Bath Design	3
INDS 2325	Professional Practices for Interior Designers	3
INDS 2386	Internship - Interior Design (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **45**

INTERIOR DESIGN - INTERIOR DESIGN COMMUNICATION

Occupational Skills Award

SCH

First Semester - Fall

INDS 1319 Technical Drawing for Interior Designers 3

INDS 2321 Presentation Drawing 3

Semester Total **6**

Second Semester - Spring

INDS 2305 Interior Design Graphics 3

INDS 2317 Rendering Techniques 3

Semester Total **6**

Total Minimum Credits for the Occupational Skills Award **12**

INTERNATIONAL BUSINESS

INTERNATIONAL BUSINESS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
IBUS 1305	Introduction to International Business & Trade	3
IBUS 1354	International Marketing Management	3
BUSG 1301	Introduction to Business	3
Semester Total		15

Second Semester - Spring

IBUS 1301	Principles of Exports	3
IBUS 1300	Global Logistics Management	3
XXXX #3## ¹	General Education Elective	3
BUSG 1307	Entrepreneurship & Economic Development	3
IBUS 1341	Global Supply Chain Management	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MRKG 2312	e-Commerce Marketing	3
MATH 1324	Mathematics for Business & Social Sciences	3
GEOG 1303	World Regional Geography	3
IBUS 1302	Principles of Imports	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

IBUS 2335	International Business Law	3
IBUS 2339	International Banking & Trade Finance	3
IBUS 1191	Special Topics in International Business - Certified Global Business Professional Exam	1
ECON 2302	Principles of Microeconomics	3
IBUS 2280	Cooperative Education - International Business/Trade/Commerce OR	
IBUS 1291	Special Topics in International Business	2
IBUS 2341	Intercultural Management (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

INTERNATIONAL BUSINESS

Certificate - Level 1

SCH

First Semester - Fall

IBUS 1305	Introduction to International Business & Trade	3
IBUS 1354	International Marketing Management	3
IBUS 1301	Principles of Exports	3
IBUS 1341	Global Supply Chain Management	3

Semester Total **12**

Second Semester - Spring

IBUS 2335	International Business Law	3
IBUS 1302	Principles of Imports	3
IBUS 1291	Special Topics in International Business	2
IBUS 2339	International Banking & Trade Finance	3
IBUS 1191	Special Topics in International Business - Certified Global Business Professional Exam (Capstone)	1

Semester Total **12**

Total Minimum Credits for the Level 1 Certificate **24**

INTERPRETING/SIGN LANGUAGE

INTERPRETING/SIGN LANGUAGE - INTERPRETING TRANSLITERATION TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
SGNL 1401	Beginning American Sign Language I	4
SLNG 1317	Introduction to the Deaf Community	3
ENGL 1301	Composition I	3
Semester Total		13

Second Semester - Spring

SGNL 1402	Beginning American Sign Language II	4
SLNG 1207	Intra-lingual Skills Development for Interpreters	2
SLNG 1321	Introduction to the Interpreting Profession	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Third Semester - Summer

SGNL 2301	Intermediate American Sign Language I	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

SLNG 1248	Vocabulary Development for Interpreters	2
SLNG 2301	Interpreting I	3
SLNG 1211	Fingerspelling & Numbers	2
PSYC 2301	General Psychology	3
SGNL 2302	Intermediate American Sign Language (ASL) II	3
Semester Total		13

Workforce Degrees and Certificates**Second Semester - Spring**

SLNG 2302	Interpreting II	3
SLNG 2311	Interpreting in Specialized Settings	3
SLNG 1350	Sign-to-Voice	3
SLNG 2303	Transliterating	3
SLNG 1166	Practicum - Sign Language Interpretation & Translation	1

Semester Total **13**

Third Semester - Summer

SLNG 2331	Interpreting III	3
SLNG 2266	Practicum - Sign Language Interpretation & Translation (Capstone)	2

Semester Total **5**

Total Minimum Credits for the AAS Degree **65**

¹ A list of electives appears in the Core Curriculum section of this catalog.

LICENSED VOCATIONAL NURSING

ALLIED HEALTH - VOCATIONAL NURSING - SPECIALIZATION

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
VNSG 1216	Nutrition	2
VNSG 1320	Anatomy & Physiology for Allied Health	3
Semester Total		8

FIRST YEAR

First Semester - Fall

VNSG 1400	Nursing in Health & Illness I	4
VNSG 1122	Vocational Nursing Concepts	1
VNSG 1227	Essentials of Medication Administration	2
VNSG 1423	Basic Nursing Skills	4
VNSG 1161	Clinical - Licensed Practical/Vocational Nurse Training I	1
Semester Total		12

Second Semester - Spring

VNSG 1330	Maternal - Neonatal Nursing	3
VNSG 1162	Clinical - Licensed Practical/Vocational Nurse Training II	1
VNSG 1266	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training I	2
VNSG 1409	Nursing in Health & Illness II	4
VNSG 2331	Advanced Nursing Skills	3
VNSG 1238	Mental Illness	2
Semester Total		15

Third Semester - Summer

VNSG 1219	Leadership & Professional Development	2
VNSG 1163	Clinical - Licensed Practical/Vocational Nurse Training III	1
VNSG 1334	Pediatrics	3
VNSG 2410	Nursing in Health & Illness III	4
VNSG 1267	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training II (Capstone)	2
Semester Total		12

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #4## ¹	General Education Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

LICENSED VOCATIONAL NURSING

Certificate - Level 1

SCH

Prerequisite Semester

VNSG 1216	Nutrition	2
VNSG 1320	Anatomy & Physiology for Allied Health	3
Semester Total		5

First Semester - Fall

VNSG 1400	Nursing in Health & Illness I	4
VNSG 1122	Vocational Nursing Concepts	1
VNSG 1227	Essentials of Medication Administration	2
VNSG 1423	Basic Nursing Skills	4
VNSG 1161	Clinical - Licensed Practical/Vocational Nurse Training I	1
Semester Total		12

Second Semester - Spring

VNSG 1330	Maternal - Neonatal Nursing	3
VNSG 1162	Clinical - Licensed Practical/Vocational Nurse Training II	1
VNSG 1266	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training I	2
VNSG 1409	Nursing in Health & Illness II	4
VNSG 2331	Advanced Nursing Skills	3
VNSG 1238	Mental Illness	2
Semester Total		15

Third Semester - Summer

VNSG 1219	Leadership & Professional Development	2
VNSG 1163	Clinical - Licensed Practical/Vocational Nurse Training III	1
VNSG 1334	Pediatrics	3
VNSG 2410	Nursing in Health & Illness III	4
VNSG 1267	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training II (Capstone)	2
Semester Total		12

Total Minimum Credits for the Level 1 Certificate **44**

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
LMGT 1319	Introduction to Business Logistics	3
IBUS 1341	Global Supply Chain Management	3
MATH 1324	Mathematics for Business & Social Sciences	3
ENGL 1301	Composition I	3
Semester Total		15

Second Semester - Spring

ETWR 1302	Introduction to Technical Writing OR	
ENGL 2311	Technical & Business Writing	3
IBUS 1301	Principles of Exports	3
BUSI 1301	Business Principles	3
BMGT 1313	Principles of Purchasing	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

LMGT 1321	Introduction to Materials Handling	3
IBUS 1302	Principles of Imports	3
LMGT 1323	Domestic & International Transportation Management	3
LMGT 1345	Economics of Transportation and Distribution	3
ECON 2302	Principles of Microeconomics	3
Semester Total		15

Second Semester - Spring

LMGT 1325	Warehouse and Distribution Center Management	3
XXXX #3## ¹	General Education Elective	3
IBUS 2335	International Business Law	3
LMGT 1193	Special Topics in Logistics & Materials Management (Capstone)	1
LMGT 2288	Internship-Logistics & Materials Management	2
IBUS 2332	Global Business Simulation	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - GENERAL

Certificate - Level 1

SCH

First Semester - Fall

LMGT 1319	Introduction to Business Logistics	3
IBUS 1301	Principles of Exports	3
LMGT 1321	Introduction to Materials Handling	3
IBUS 1341	Global Supply Chain Management	3

Semester Total 12

Second Semester - Spring

LMGT 1323	Domestic & International Transportation Management	3
LMGT 1325	Warehouse & Distribution Center Management	3
IBUS 1302	Principles of Imports	3
BMGT 1313	Principles of Purchasing	3
LMGT 1193	Special Topics in Logistics & Materials Management (Capstone)	1

Semester Total 13

Total Minimum Credits for the Level 1 Certificate 25

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

LMGT 1319	Introduction to Business Logistics	3
LMGT 1170	Certified Logistics Associate	1
LMGT 1271	Certified Logistics Technician	2
IBUS 1301	Principles of Exports	3
Semester Total		9

Second Semester - Spring

LMGT 1323	Domestic & International Transportation Management	3
IBUS 1302	Principles of Imports	3
LMGT 1325	Warehouse & Distribution Center Management	3
LMGT 1193	Special Topics in Logistics & Materials Management (Capstone)	1
Semester Total		10

Total Minimum Credits for the Level 1 Certificate **19**

**LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME
 TRANSPORTATION LOGISTICS SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
LMGT 1325	Warehouse & Distribution Center Management	3
IBUS 1341	Global Supply Chain Management	3
ENGL 1301	Composition I	3
MATH 1324	Mathematics for Business & Social Sciences	3

Semester Total 15

Second Semester - Spring

LMGT 1170	Certified Logistics Associate	1
LMGT 1271	Certified Logistics Technician	2
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
OSHT 1301	Introduction to Safety & Health	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
IBUS 1301	Principles of Exports	3

Semester Total 15

SECOND YEAR

First Semester - Fall

LMGT 1319	Introduction to Business Logistics	3
ECON 2302	Principles of Microeconomics	3
LMGT 1345	Economics of Transportation & Distribution	3
IBUS 1302	Principles of Imports	3
LMGT 1323	Domestic & International Transportation Management	3

Semester Total 15

Second Semester - Spring

MART 1370	Introduction to Maritime Shipping	3
LMGT 2389	Internship-Logistics and Materials Management (Capstone)	3
IBUS 2335	International Business Law	3
XXXX #3## ¹	General Education Elective	3
LMGT 1370	Equipment Operation	3

Semester Total 15

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

**LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME
LOGISTICS SPECIALIZATION**

Certificate - Level 1		SCH
First Semester - Fall		
LMGT 1325	Warehouse & Distribution Center Management	3
LMGT 1370	Equipment Operation	3
LMGT 1170	Certified Logistics Associate	1
OSHT 1301	Introduction to Safety & Health	3
Semester Total		10
Second Semester - Spring		
LMGT 1271	Certified Logistics Technician	2
LMGT 1323	Domestic & International Transportation Management	3
MART 1370	Introduction to Maritime Shipping (Capstone)	3
Semester Total		8
Total Minimum Credits for the Level 1 Certificate		18

MACHINING TECHNOLOGY

MACHINING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 1305	Metals & Heat Treatment	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MCHN 2333	Advanced Lathe Operations	3
MCHN 2337	Advanced Milling Operations	3
INMT 1370	Lean Manufacturing	3
MCHN 2331	Operation of CNC Turning Centers OR	
INMT 1345	Computer Numerical Controls	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
HUMA 1301	Introduction to Humanities OR	
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Third Semester - Summer

MCHN 2341	Advanced Machining I (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

MACHINING TECHNOLOGY - BASIC MANUFACTURING/MACHINING

Certificate - Level 1

SCH

First Semester - Fall

ENTC 1347	Safety & Ergonomics	3
MCHN 1302	Print Reading for Machining Trades	3
MCHN 1338	Basic Machine Shop I	3
MCHN 1343	Machine Shop Mathematics	3

Semester Total 12

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations (Capstone)	3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 21

MACHINING TECHNOLOGY

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 1305	Metals & Heat Treatment	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MCHN 2337	Advanced Milling Operations	3
MCHN 2333	Advanced Lathe Operations	3
INMT 1370	Lean Manufacturing	3
MCHN 2331	Operation of CNC Turning Centers OR	
INMT 1345	Computer Numerical Controls	3
Semester Total		12

Second Semester - Spring

MCHN 2341	Advanced Machining I (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 2 Certificate **45**

**MACHINING TECHNOLOGY - COMPUTER NUMERICAL CONTROLS (CNC) -
 SPECIALIZATION**

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 1302	Print Reading for Machine Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop	3
Semester Total		15

Second Semester - Spring

INMT 1345	Computer Numerical Controls	3
MCHN 2331	Operations of CNC Turning Centers	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Mill Operations	3
MCHN 1343	Machine Shop Mathematics	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MCHN 2334	Operations of CNC Machining Centers	3
MCHN 2303	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls	3
MCHN 1305	Metals and Heat Treatment	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

MCHN 1326	Introduction to Computer-Aided Manufacturing (CAM)	3
ARTS 2341	Metals	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
MCHN 2335	Advanced CNC Machining (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

MANUFACTURING ENGINEERING TECHNOLOGY

MANUFACTURING ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
ELPT 1311	Basic Electrical Theory	3
INMT 1372	Quality and Assessment	3
INMT 1345	Computer Numerical Controls	3
MCHN 2331	Operation of CNC Turning Centers	3
Semester Total		15

SECOND YEAR

First Semester - Fall

INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
INMT 1305	Introduction to Industrial Maintenance	3
INMT 1317	Industrial Automation	3
INMT 1370	Lean Manufacturing	3
INMT 1319	Manufacturing Processes (Capstone)	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social Science / Behavioral Elective	3
ARTS 2341	Metals OR	
XXXX #3## ¹	Humanities / Fine Arts Elective	3
ARTS 1316	Drawing I	3
HUMA 1301	Introduction to Humanities OR	
XXXX #3## ¹	Humanities / Fine Arts Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

**MANUFACTURING ENGINEERING TECHNOLOGY - HELPER
Certificate - Level 1**

SCH

FIRST YEAR

First Semester - Fall

MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I OR	
INMT 1372	Quality and Assessment	3
Semester Total		12

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
INMT 1319	Manufacturing Processes	3
INMT 1305	Introduction to Industrial Maintenance (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

**MANUFACTURING ENGINEERING TECHNOLOGY - TECHNICIAN
 Certificate - Level 2**

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
ELPT 1311	Basic Electrical Theory	3
INMT 1372	Quality and Assessment	3
INMT 1345	Computer Numerical Controls	3
MCHN 2331	Operation of CNC Turning Centers	3
Semester Total		15

SECOND YEAR

First Semester - Fall

INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
INMT 1305	Introduction to Industrial Maintenance	3
INMT 1317	Industrial Automation	3
INMT 1370	Lean Manufacturing	3
MCHN 2335	Advanced CNC Machining (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 2 Certificate **45**

**MANUFACTURING ENGINEERING TECHNOLOGY - HIGH VALUE
 MANUFACTURING**

Certificate - Level 2 **SCH**

First Semester - Fall

ENTC 1347	Safety & Ergonomics	3
MATH 1314	College Algebra	3
MCHN 1302	Print Reading for Machining Trades	3
MCHN 1338	Basic Machine Shop I	3
PTRT 1301	Introduction to Petroleum Industry	3
Semester Total		15

Second Semester - Spring

INCR 1302	Physics of Instrumentation	3
INMT 1345	Computer Numerical Controls	3
INMT 1371	Materials & Applications	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
PTRT 1470	Petroleum Data Management	4
Semester Total		19

Third Semester - Summer

INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
INMT 1372	Quality & Assessment	3
INMT 1373	Machine Shop Logistics	3
INMT 2370	Project Management (Capstone)	3
PTRT 2370	Petroleum Operations	3
Semester Total		15

Total Minimum Credits for the Level 2 Certificate **49**

MARKETING

MARKETING - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MRKG 1311	Principles of Marketing	3
HRPO 1311	Human Relations	3
IBUS 1354	International Marketing Management	3
Semester Total		15

Second Semester - Spring

BMGT 1327	Principles of Management	3
MRKG 1302	Principles of Retailing	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
MRKG 1391	Special Topics in Business Marketing & Marketing Management	3
MATH 1324	Mathematics for Business & Social Sciences	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MRKG 2348	Marketing Research & Strategies	3
ECON 2302	Principles of Microeconomics	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
Semester Total		15

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2333	Principles of Selling	3
MRKG 2349	Advertising & Sales Promotion	3
MRKG 2380	Cooperative Education - Marketing/Marketing Management, General	3
MRKG 2374	Marketing Case Studies (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

MARKETING

Certificate - Level 1

SCH

First Semester - Fall

MRKG 1311	Principles of Marketing	3
IBUS 1354	International Marketing Management OR	
MRKG 1391	Special Topics in Business Marketing & Marketing Management	3
MRKG 2333	Principles of Selling	3
MRKG 2349	Advertising & Sales Promotion	3
Semester Total		12

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
MRKG 2380	Cooperative Education - Marketing/Marketing Management, General (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

MARKETING - RETAILING

Certificate - Level 1

SCH

First Semester - Fall

HRPO 1311	Human Relations	3
MRKG 1311	Principles of Marketing	3
MRKG 2333	Principles of Selling	3
MRKG 1302	Principles of Retailing	3
Semester Total		12

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
XXXX #3## ¹	Program Approved Elective	3
XXXX #3## ¹	Program Approved Elective	3
MRKG 2371	Services Marketing (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

¹ Program approved electives: Any BUSG, BMGT, HRPO, IBUS, MRKG, or LMGT course.

MARKETING - INNOVATION & ENTERPRISE SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MRKG 1311	Principles of Marketing	3
MRKG 1370	Enterprise Mindset	3
MATH 1332	Contemporary Mathematics	3
ENGL 1301	Composition I	3
Semester Total		15

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2370	Creativity & Innovation	3
MRKG 2333	Principles of Selling	3
BUSG 2370	Legal Issues for Enterprise OR	
MRKG 2378	Franchising	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ECON 2302	Principles of Microeconomics	3
ACNT 1303	Introduction to Accounting I	3
MRKG 2377	Financial Management/Budgeting for Enterprise Marketing	3
BUSG 1307	Entrepreneurship & Economic Development	3
Semester Total		15

Second Semester - Spring

MRKG 2375	Social Enterprise	3
MRKG 2376	Enterprise Opportunity Analysis	3
BUSG 2309	Small Business Management/Entrepreneurship	3
BUSG 2382	Cooperative Education - Entrepreneurship/Entrepreneurial Studies (Capstone)	3
XXXX #3## ¹	General Education Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

MARKETING - ENTERPRISE DEVELOPMENT

Certificate - Level 1

SCH

First Semester - Fall

MRKG 1311 Principles of Marketing 3

BUSG 1307 Entrepreneurship & Economic Development 3

MRKG 1370 Enterprise Mindset 3

Semester Total 9

Second Semester - Spring

MRKG 2370 Creativity & Innovation 3

MRKG 2378 Franchising 3

MRKG 2376 Enterprise Opportunity Analysis (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

MARKETING - SOCIAL ENTERPRISE

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

MRKG 1311	Principles of Marketing	3
BUSG 1307	Entrepreneurship & Economic Development	3
IBUS 1370	Economic Geography	3
MRKG 2372	Consumer Behavior	3
Semester Total		12

Second Semester - Spring

BUSG 2309	Small Business Management/Entrepreneurship	3
IBUS 2370	Global Issues for Enterprise	3
MRKG 2375	Social Enterprise	3
MRKG 2376	Enterprise Opportunity Analysis (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate **24**

MEDICAL ASSISTANT - SPECIALIZATION

ALLIED HEALTH - MEDICAL ASSISTANT - SPECIALIZATION

Associate of Applied Science

SCH

Prerequisite Semester

XXXX #3## ¹	General Education Elective	3
HPRS 1201	Introduction to Health Professions	2
ENGL 1301	Composition I	3
Semester Total		8

FIRST YEAR

First Semester - Fall

HPRS 1304	Basic Health Profession Skills	3
MDCA 1205	Medical Law & Ethics	2
MDCA 1313	Medical Terminology	3
Semester Total		8

Second Semester - Spring

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1343	Medical Insurance	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
MDCA 1417	Procedures in a Clinical Setting	4
Semester Total		14

Third Semester - Summer

MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1321	Administrative Procedures	3
MDCA 1448	Pharmacology & Administration of Medications	4
MDCA 1210	Medical Assistant Interpersonal & Communication Skills	2
Semester Total		12

SECOND YEAR

First Semester - Fall

MDCA 1254	Medical Assisting Credentialing Exam Review	2
MDCA 1264	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	2
Semester Total		4

Second Semester - Spring

XXXX #4## ¹	General Education Elective	4
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		14

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

MEDICAL ASSISTANT - MEDICAL SCRIBE

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
HPRS 1304	Basic Health Profession Skills	3
MDCA 1313	Medical Terminology	3
ITSC 1309	Integrated Software Applications I	3
Semester Total		11

First Semester - Fall

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1205	Medical Law & Ethics	2
MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1343	Medical Insurance	3
Semester Total		12

Second Semester - Spring

MDCA 1265	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	2
Semester Total		2

Total Minimum Credits for the Level 1 Certificate **25**

MEDICAL ASSISTANT- SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
ENGL 1301	Composition I	3
Semester Total		5

First Semester - Fall

HPRS 1304	Basic Health Profession Skills	3
MDCA 1205	Medical Law & Ethics	2
MDCA 1313	Medical Terminology	3
Semester Total		8

Second Semester - Spring

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1343	Medical Insurance	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
MDCA 1417	Procedures in a Clinical Setting	4
Semester Total		14

Third Semester - Summer

MDCA 1210	Medical Assistant Interpersonal and Communication Skills	2
MDCA 1321	Administrative Procedures	3
MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1448	Pharmacology & Administration of Medications	4
Semester Total		12

SECOND YEAR

First Semester - Fall

MDCA 1254	Medical Assisting Credentialing Exam Review	2
MDCA 1264	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	2
Semester Total		4

Total Minimum Credits for the Level 2 Certificate **43**

MEDICAL LABORATORY TECHNICIAN

MEDICAL LABORATORY TECHNICIAN

Associate of Applied Science

SCH

Prerequisite Semester

MLAB 1101	Introduction to Clinical Laboratory Science	1
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		11

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
CHEM 1405	Introductory Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture) AND	3
CHEM 1111	General Chemistry I (Lab)	1
MLAB 1235	Immunology/Serology	2
MLAB 1270	Hematology I	2
PLAB 1173	Phlebotomy	1
Semester Total		15

Second Semester - Spring

BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
MLAB 1127	Coagulation	1
MLAB 1271	Hematology II	2
MLAB 2331	Immunochemistry	3
MLAB 2270	Clinical Chemistry I	2
Semester Total		11

Third Semester - Summer

MLAB 1211	Urinalysis & Body Fluids	2
MLAB 2271	Clinical Chemistry II	2
Semester Total		4

SECOND YEAR

First Semester - Fall

MLAB 1166	Practicum (or Field Experience) - Clinical/Medical Laboratory Technician	1
MLAB 1167	Practicum (or Field Experience) - Clinical/Medical Laboratory Technician	1
MLAB 2434	Clinical Microbiology	4
	Semester Total	6

Second Semester - Spring

MLAB 1231	Parasitology/Mycology	2
MLAB 1266	Practicum (or Field Experience)- Clinical/Medical Laboratory Technician	2
MLAB 1267	Practicum (or Field Experience)- Clinical/Medical Laboratory Technician	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
	Semester Total	9

Third Semester - Summer

MLAB 2232	Seminar in Medical Laboratory Technology	2
MLAB 2238	Advanced Topics in Medical Laboratory Technician/Assistant (Capstone)	2
	Semester Total	4

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

MUSIC BUSINESS

MUSIC BUSINESS - ADMINISTRATION SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSI 1310	American Music	3
MUSB 1305	Survey of the Music Business	3
MUSC 1335	Commercial Music Software	3
MUSC 1270	Fundamentals of Music Production	2
Semester Total		14

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
MUSB 2309	The Record Industry	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSB 2305	Music Publishing	3
MUSC 1405	Live Sound I	4
Semester Total		16

SECOND YEAR

First Semester - Fall

ACNT 1303	Introduction to Accounting I	3
MUSB 2345	Live Music & Talent Management	3
MUSB #3## ²	Approved Music Business Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
MUSB 1391	Special Topics in Music Business	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
MUSB #3## ²	Approved Music Business/Commercial Music Elective	3
MUSB 1341	Concert Promotion & Venue Management	3
MUSB #3## ²	Approved Music Business/Commercial Music Elective	3
MUSB 2381	Cooperative Education - Music Management (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

MUSIC BUSINESS

Certificate - Level 1

First Semester - Fall		SCH
MUSB 1305	Survey of the Music Business	3
MUSB 2309	The Record Industry	3
MUSI 2305	Music Publishing	3
MUSB #3## ¹	Approved Music Business/ Commercial Music Elective	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSB 2301	Music Marketing (Capstone)	3
Semester Total		18
Total Minimum Credits for the Level 1 Certificate		18

¹ Consult with an advisor to select an appropriate elective.

MUSIC BUSINESS - ADMINISTRATION SPECIALIZATION
Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSB 1305	Survey of the Music Business	3
MUSC 1270	Fundamentals of Music Production	2
MUSC 1335	Commercial Music Software	3
MUSB #3## ¹	Approved Music Business/Commercial Music	3
MUSB #3## ¹	Approved Music Business/Commercial Music	3
Semester Total		17

Second Semester - Spring

MUSB 2309	The Record Industry	3
MUSB 1391	Special Topics in Music Business	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSB 2345	Live Music & Talent Management	3
MUSB 2305	Music Publishing	3
Semester Total		15

Third Semester - Summer

ACNT 1303	Introduction to Accounting I	3
MUSB 1341	Concert Promotion & Venue Management	3
MUSB 2381	Cooperative Education-Music Management (Capstone)	3
MUSC 1405	Live Sound I	4
MUSB #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		16

Total Minimum Credits for the Level 2 Certificate **48**

¹ Consult with an advisor to select an appropriate elective.

MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSI 1310	American Music	3
MUSI 1303	Fundamentals of Music	3
MUSC 1321	Songwriting I	3
MUSB 1305	Survey of the Music Business	3
Semester Total		15

Second Semester - Spring

MUAP 1185	Arranging & Composition	1
MUAP 1187	Arranging & Composition Studio	1
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSC 1335	Commercial Music Software	3
MUSC 1270	Fundamentals of Music Production	2
MUSB 2305	Music Publishing	3
XXXX #3## ¹	Approved Math/Natural Science Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

MUAP 2185	Arranging & Composition	1
MUAP 2187	Arranging & Composition Studio	1
MUSB 1341	Concert Promotion & Venue Management	3
MUSB 2309	The Record Industry	3
XXXX #3## ¹	Approved Social/Behavioral Sciences Elective	3
XXXX #3## ²	Approved Music Business/Commercial Music Elective	3
Semester Total		14

Second Semester - Spring

MUAP 2186	Arranging & Composition	1
MUAP 2188	Arranging & Composition Studio	1
XXXX #3## ²	General Education Elective	3
MUSB 2345	Live Music & Talent Management	3
MUSB 1391	Special Topics in Music Business	3
MUSC 2141	Forum/Recital (Capstone)	1
XXXX #3## ²	Approved Music Business/Commercial Music Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION
Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSI 1303	Fundamentals of Music	3
MUSB 1305	Survey of the Music Business	3
MUSC 1321	Songwriting I	3
Semester Total		12

Second Semester - Spring

MUAP 1185	Arranging & Composition	1
MUAP 1187	Arranging & Composition Studio	1
MUSC 1335	Commercial Music Software	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSC 1270	Fundamentals of Music Production	2
MUSB 2305	Music Publishing	3
Semester Total		13

SECOND YEAR

First Semester - Fall

MUAP #1## ¹	Approved Applied Music Elective	1
MUAP #1## ¹	Approved Applied Music Elective	1
MUAP 2185	Arranging & Composition	1
MUAP 2187	Arranging & Composition Studio	1
MUSB 2309	The Record Industry	3
MUSB 1341	Concert Promotion & Venue Management	3
MUAP #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		13

Second Semester - Spring

MUAP 2186	Arranging & Composition	1
MUAP 2188	Arranging & Composition Studio	1
MUSC 2141	Forum/Recital (Capstone)	1
MUSB 1391	Special Topics in Music Business	3
MUSB 2345	Live Music & Talent Management	3
MUSX #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate **50**

¹ Consult with an advisor to select an appropriate elective.

NUCLEAR MEDICINE TECHNOLOGY

NUCLEAR MEDICINE TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
CHEM 1305	Introductory Chemistry I (Lecture)	3
CHEM 1105	Introductory Chemistry I (Lab)	1
MATH 1314	College Algebra	3
SCIT 1320	Physics for Allied Health	3
Semester Total		21

First Semester - Fall

NMTT 1211	Nuclear Medicine Patient Care	2
NMTT 1301	Introduction to Nuclear Medicine	3
NMTT 1166	Practicum (or Field Experience) I - Nuclear Medical Technology/Technologist	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Second Semester - Spring

NMTT 1409	Nuclear Medicine Instrumentation	4
NMTT 1267	Practicum (or Field Experience) II - Nuclear	2
RADR 2340	Sectional Anatomy for Medical Imaging	3
NMTT 2201	Radiochemistry & Radiopharmacy	2
Semester Total		11

Third Semester - Summer

NMTT 2309	Nuclear Medicine Methodology I	3
NMTT 2167	Practicum (or Field Experience) III - Nuclear Medical Technology/Technologist	1
Semester Total		4

SECOND YEAR**First Semester - Fall**

NMTT 2413	Nuclear Medicine Methodology II	4
NMTT 2266	Practicum (or Field Experience) IV - Nuclear Medical Technology/Technologist	2
ENGL 1301	Composition I	3
Semester Total		9

Second Semester - Spring

CTMT 2336	Computed Tomography Equipment & Methodology	3
NMTT 2367	Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist (Capstone)	3
Semester Total		6

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

NURSING

NURSING

Associate of Applied Science

SCH

Prerequisite Semester

ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
PSYC 2301	General Psychology	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
Semester Total		14

FIRST YEAR

First Semester - Fall

RNSG 1413	Foundations for Nursing Practice	4
RNSG 1201	Pharmacology	2
RNSG 1360	Clinical - Registered Nursing/Registered Nurse-Foundations	3
RNSG 1105	Nursing Skills I	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		14

Second Semester - Spring

RNSG 1341	Common Concepts of Adult Health	3
RNSG 2360	Clinical - Registered Nursing/Registered Nurse	3
RNSG 2201	Care of Children & Families	2
RNSG 2261	Clinical - Registered Nursing/Registered Nurse	2
PSYC 2314	Lifespan Growth & Development	3
Semester Total		13

Third Semester - Summer

RNSG 1160	Clinical - Registered Nursing/Registered Nurse	1
RNSG 1251	Care of the Childbearing Family	2
RNSG 2213	Mental Health Nursing	2
RNSG 2160	Clinical - Registered Nursing/Registered Nurse	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

SECOND YEAR**First Semester - Fall**

RNSG 2221	Professional Nursing: Leadership & Management	2
RNSG 1144	Nursing Skills II	1
RNSG 1343	Complex Concepts of Adult Health	3
RNSG 2361	Clinical - Registered Nursing/Registered Nurse-Adult II	3
RNSG 2130	Professional Nursing Review & Licensure Preparation (Capstone)	1
	Semester Total	10
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

NURSING - TRANSITION TO REGISTERED NURSING

Associate of Applied Science SCH

Prerequisite Year

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
ENGL 1301	Composition I	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
PSYC 2314	Lifespan Growth & Development	3
RNSG 1201	Pharmacology	2
Semester Total		26

First Semester - Fall

RNSG 1215	Health Assessment	2
RNSG 1327	Transition to Professional Nursing	3
RNSG 1163	Clinical - Registered Nursing/Registered Nurse Transition	1
RNSG 2213	Mental Health Nursing	2
RNSG 2160	Clinical - Registered Nursing/Registered Nurse	1
Semester Total		9

Upon successful completion of the first semester courses, the student will receive credit for:

RNSG 1105	Nursing Skills I	1
RNSG 1360	Clinical Registered Nursing/Registered Nurse (Fundamentals)	3
RNSG 1413	Foundations for Nursing Practice	4
Semester Total		8

Second Semester - Spring

RNSG 2201	Care of Children & Families	2
RNSG 2261	Clinical - Registered Nursing/Registered Nurse	2
RNSG 1144	Nursing Skills II	1
RNSG 1251	Care of the Childbearing Family	2
RNSG 1160	Clinical - Registered Nursing/Registered Nurse	1
Semester Total		8

Third Semester - Summer

RNSG 1343	Complex Concepts of Adult Health	3
RNSG 2361	Clinical - Registered Nursing/Registered Nurse-Adult II	3
RNSG 2221	Professional Nursing: Leadership & Management	2
RNSG 2130	Professional Nursing Review & Licensure Preparation (Capstone)	1
Semester Total		9

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

OCCUPATIONAL THERAPY ASSISTANT

OCCUPATIONAL THERAPY ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
PSYC 2301	General Psychology	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
OTHA 1301	Introduction to Occupational Therapy	3
Semester Total		12

First Semester - Fall

OTHA 1305	Principles of Occupational Therapy	3
OTHA 1309	Human Structure & Function in Occupational Therapy	3
OTHA 1315	Therapeutic Use of Occupations or Activities I	3
PSYC 2314	Lifespan Growth & Development	3
Semester Total		12

Second Semester - Spring

OTHA 2301	Pathophysiology in Occupational Therapy	3
OTHA 2335	Health Care Management & Occupational Therapy	3
OTHA 1319	Therapeutic Interventions I	3
OTHA 1241	Occupational Performance from Birth through Adolescence	2
Semester Total		11

Third Semester - Summer

OTHA 2302	Therapeutic Use of Occupations or Activities II	3
OTHA 2305	Therapeutic Interventions II	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

SECOND YEAR**First Semester - Fall**

OTHA 1253	Occupational Performance for Elders	2
OTHA 2331	Physical Function in Occupational Therapy	3
OTHA 2209	Mental Health in Occupational Therapy	2
OTHA 1161	Clinical - Occupational Therapy Assistant	1
OTHA 1162	Clinical - Occupational Therapy Assistant	1

Semester Total **9**

Second Semester - Spring

OTHA 2330	Workplace Skills for Occupational Therapy Assistant	3
OTHA 2266	Practicum (or Field Experience) - Occupational Therapy Assistant	2
OTHA 2267	Practicum (or Field Experience) - Occupational Therapy Assistant (Capstone)	2

Semester Total **7**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

PARALEGAL TECHNOLOGY

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
LGLA 1303	Legal Research	3
LGLA 1344	Texas Civil Litigation	3
LGLA 2307	Law Office Management	3
ACNT 1303	Introduction to Accounting I	3
Semester Total		15

Second Semester - Spring

LGLA 1305	Legal Writing	3
LGLA 1345	Civil Litigation	3
ENGL 1301	Composition I	3
XXXX #3## ¹	Paralegal Technology Elective	3
LGLA 1380	Cooperative Education - Legal Assistant/Paralegal	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
LGLA 1351	Contracts	3
LGLA 2309	Real Property	3
LGLA 2381	Cooperative Education-Legal Assistant/Paralegal (Capstone)	3
PSYC 2301	General Psychology	3
Semester Total		15

Second Semester - Spring

LGLA 1353	Wills, Trusts & Probate Administration	3
LGLA 2303	Torts & Personal Injury Law	3
XXXX #3## ¹	Paralegal Technology Elective	3
GOVT 2305	Federal Government OR	
GOVT 2306	Texas Government	3
MATH 1314	College Algebra OR	
XXXX #3## ²	Math/Natural Science Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

² A list of electives appears in the Core Curriculum section of this catalog.

**PARALEGAL TECHNOLOGY - LEGAL ASSISTANT - GENERAL
 Certificate - Level 1**

SCH

FIRST YEAR

First Semester - Fall

LGLA 1303	Legal Research	3
LGLA 1344	Texas Civil Litigation	3
LGLA 2309	Real Property	3
LGLA #3## ¹	Paralegal Technology Elective	3
ACNT 1303	Introduction to Accounting I	3
Semester Total		15

Second Semester - Spring

LGLA 1305	Legal Writing	3
LGLA 1345	Civil Litigation	3
LGLA 2303	Torts & Personal Injury Law	3
LGLA 2307	Law Office Management	3
LGLA 1380	Cooperative Education-Legal Assistant/Paralegal (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate **30**

¹ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

PARALEGAL TECHNOLOGY - LAW OFFICE CLERK

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

LGLA 1303	Legal Research	3
ACNT 1303	Introduction to Accounting I	3
LGLA 1344	Texas Civil Litigation	3
	Semester Total	9

Second Semester - Spring

LGLA 1345	Civil Litigation	3
LGLA 2307	Law Office Management	3
LGLA 1380	Cooperative Education - Legal Assistant/Paralegal (Capstone)	3
	Semester Total	9

Total Minimum Credits for the Level 1 Certificate **18**

PASTRY ARTS

PASTRY ARTS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
PSTR 1301	Fundamentals of Baking	3
PSTR 1310	Pies, Tarts, Teacakes & Cookies	3
CHEF 1205	Sanitation & Safety	2
Semester Total		14

Second Semester - Spring

GEOL 1305	Environmental Science (Lecture)	3
PSTR 1312	Laminated Dough, Paté à Choux, & Donuts	3
PSTR 2301	Chocolates & Confections	3
PSTR 1306	Cake Decorating I	3
PSTR 1305	Breads & Rolls	3
Semester Total		15

Third Semester - Summer

MATH 1324	Mathematics for Business & Social Sciences	3
PSTR 1343	Bakery Operations & Management	3
PSTR 1340	Plated Desserts	3
Semester Total		9

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
PSTR 2307	Cake Decorating II OR	
PSTR 2350	Wedding Cakes	3
HAMG 1324	Hospitality Human Resources Management	3
PSTR 1471	Baking for Special Dietary Needs	4
Semester Total		13

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
PSTR 2370	Supervised Study: Capstone in Baking & Pastry Arts (Capstone)	3
PSTR 2331	Advanced Pastry Shop	3
Semester Total		9

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

PASTRY ARTS

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PSTR 1301	Fundamentals of Baking	3
PSTR 1306	Cake Decorating I	3
PSTR 1310	Pies, Tarts, Teacakes & Cookies	3
CHEF 1205	Sanitation & Safety	2
Semester Total		14

Second Semester - Spring

PSTR 1343	Bakery Operations & Management	3
PSTR 1305	Breads & Rolls	3
PSTR 2307	Cake Decorating II OR	
PSTR 2350	Wedding Cakes	3
PSTR 1312	Laminated Dough, Paté à Choux, & Donuts	3
HAMG 1324	Hospitality Human Resources Management	3
Semester Total		15

Third Semester - Summer

PSTR 2331	Advanced Pastry Shop	3
PSTR 2301	Chocolates & Confections	3
PSTR 1340	Plated Desserts	3
PSTR 2370	Supervised Study: Capstone in Baking & Pastry Arts (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate		41
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PASTRY ARTS - BAKER

Certificate - Level 1

SCH

First Semester - Fall

PSTR 1301	Fundamentals of Baking	3
CHEF 1205	Sanitation & Safety	2
Semester Total		5

Second Semester - Spring

PSTR 1305	Breads & Rolls	3
PSTR 1312	Laminated Dough, Paté à Choux, & Donuts	3
PSTR 1310	Pies, Tarts, Teacakes & Cookies (Capstone)	3
PSTR #3## ¹	Program Approved Elective	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

17

¹ PSTR 1306, 1340, 1391, 2301, 2307, 2331, or 2350.

PETROLEUM ENGINEERING TECHNOLOGY

PETROLEUM ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTRT 1301	Introduction to Petroleum Industry	3
MATH 1314	College Algebra	3
CPMT 1303	Introduction to Computer Technology	3
Semester Total		12

Second Semester - Spring

PTRT 1470	Petroleum Data Management I - Exploration	4
PTRT 1370	Petroleum Geology	3
ENGL 1301	Composition I	3
PTRT 1313	Industrial Safety	3
Semester Total		13

Third Semester - Summer

PTRT 1472	Petroleum Data Management II - Drilling & Production	4
Semester Total		4

SECOND YEAR

First Semester - Fall

PTRT 1473	Exploration & Production II	4
MATH 1325	Calculus for Business & Social Sciences	3
PTRT 2370	Petroleum Operations	3
XXXX #2## ¹	Program Approved Elective	2
Semester Total		12

Second Semester - Spring

PTRT 2331	Well Completions	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3
PTRT 2323	Natural Gas Production	3
XXXX #3## ²	Humanities/ Fine Arts Elective	3
Semester Total		12

Third Semester - Summer

PTRT 2372	Internship-Petroleum Technology/Technician	3
PTRT 2470	Petroleum Data Management III - Facilities & Performance (Capstone)	4
Semester Total		7

Total Minimum Credits for the AAS Degree **60**

¹ Consult with an advisor to determine the appropriate elective.

² A list of electives appears in the Core Curriculum section of this catalog.

PETROLEUM ENGINEERING TECHNOLOGY

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PTRT 1301	Introduction to Petroleum Industry	3
MATH 1314	College Algebra	3
PTRT 1313	Industrial Safety	3
CPMT 1303	Introduction to Computer Technology	3
Semester Total		15

Second Semester - Spring

ENGL 1301	Composition I	3
PTRT 1470	Petroleum Data Management I - Exploration	4
MATH 1325	Calculus for Business & Social Sciences	3
PTRT 1471	Exploration & Production I	4
PTRT 1370	Petroleum Geology	3
Semester Total		17

Third Semester - Summer

PTRT 1473	Exploration & Production II	4
PTRT 1472	Petroleum Data Management II - Drilling & Production	4
PTRT 2370	Petroleum Operations (Capstone)	3
Semester Total		11

Total Minimum Credits for the Level 2 Certificate

43

PHARMACY TECHNICIAN

ALLIED HEALTH - PHARMACY TECHNICIAN--SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
PHRA 1301	Introduction to Pharmacy	3
Semester Total		5

First Semester - Fall

PHRA 1305	Drug Classification	3
PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1272	Professional Practices for Pharmacy Technicians	2
Semester Total		12

Second Semester - Spring

PHRA 1449	Institutional Pharmacy Practice	4
PHRA 1445	Compounding Sterile Preparations	4
PHRA 1247	Pharmaceutical Mathematics II	2
PHRA 1304	Pharmacotherapy & Disease Process	3
Semester Total		13

Third Semester - Summer

PHRA 1261	Clinical - Pharmacy Technician/Assistant	2
PHRA 2260	Clinical - Pharmacy Technician/Assistant	2
PHRA 2261	Clinical - Pharmacy Technician/Assistant (Capstone)	2
PHRA 1243	Pharmacy Technician Certification Review	2
Semester Total		8

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Second Semester - Spring

ENGL 1302	Composition II	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		9

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

PHARMACY TECHNICIAN

Certificate - Level 2

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
PHRA 1301	Introduction to Pharmacy	3
Semester Total		5

First Semester - Fall

PHRA 1305	Drug Classification	3
PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1272	Professional Practices for Pharmacy Technicians	2
Semester Total		12

Second Semester - Spring

PHRA 1449	Institutional Pharmacy Practice	4
PHRA 1304	Pharmacotherapy & Disease Process	3
PHRA 1445	Compounding Sterile Preparations	4
PHRA 1247	Pharmaceutical Mathematics II	2
Semester Total		13

Third Semester - Summer

PHRA 1261	Clinical - Pharmacy Technician/Assistant	2
PHRA 2260	Clinical - Pharmacy Technician/Assistant	2
PHRA 2261	Clinical - Pharmacy Technician/Assistant (Capstone)	2
PHRA 1243	Pharmacy Technician Certification Review	2
Semester Total		8

Total Minimum Credits for the Level 2 Certificate

38

PHARMACY TECHNICIAN - RETAIL

Occupational Skills Award

SCH

First Semester - Fall

PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1243	Pharmacy Technician Certification Review	2
PHRA 1260	Clinical - Pharmacy Technician/Assistant	2
PHRA 1305	Drug Classification	3
	Semester Total	14
	Total Minimum Credits for the Occupational Skills Award	14

PHYSICAL THERAPIST ASSISTANT

PHYSICAL THERAPIST ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

PTHA 1301	The Profession of Physical Therapy	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
PTHA 1405	Basic Patient Care Skills	4
PTHA 1413	Functional Anatomy	4
HPRS 1206	Essentials of Medical Terminology	2
Semester Total		17

Second Semester - Spring

PTHA 1321	Pathophysiology	3
PTHA 1431	Physical Agents	4
PTHA 2301	Essentials of Data Collection	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		14

Third Semester - Summer

PTHA 2205	Neurology	2
HPRS 2232	Health Care Communications	2
PTHA 2509	Therapeutic Exercise	5
Semester Total		9

SECOND YEAR

First Semester - Fall

PTHA 1266	Practicum (or Field Experience) - Physical Therapist Assistant I	2
PSYC 2301	General Psychology	3
PTHA 2435	Rehabilitation Techniques	4
PTHA 2431	Management of Neurological Disorders	4
Semester Total		13

Second Semester - Spring

PSYC 2314	Lifespan Growth & Development	3
PTHA 1267	Practicum (or Field Experience) - Physical Therapist Assistant II	2
PTHA 2266	Practicum (or Field Experience) - Physical Therapist Assistant III	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
PTHA 2339	Professional Issues (Capstone)	3
Semester Total		13

Total Minimum Credits for the AAS Degree **66**

¹ A list of electives appears in the Core Curriculum section of this catalog.

PROCESS TECHNOLOGY

PROCESS TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
PTAC 1308	Safety, Health, & Environment I	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3

Semester Total **18**

Second Semester - Spring

SCIT 1418	Applied Physics OR	
PHYS 1401	College Physics I (Lecture & Lab)	4
SCIT 1414	Applied General Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture) AND	3
CHEM 1111	General Chemistry I (Lab)	1
PTAC 1410	Process Technology I - Equipment	4
PTAC 1332	Process Instrumentation I	3

Semester Total **15**

SECOND YEAR

First Semester - Fall

SPCH 1311	Introduction to Speech Communication	3
PTAC 2314	Principles of Quality	3
PTAC 2420	Process Technology II - Systems	4
PTAC 1354	Industrial Processes	3

Semester Total **13**

Second Semester - Spring

PTAC 2438	Process Technology III - Operations (Capstone)	4
PTAC 1350	Industrial Economics OR	
PTAC 2336	Process Instrumentation II	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
PTAC 2446	Process Troubleshooting	4

Semester Total **14**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

PROCESS TECHNOLOGY - PROCESS OPERATOR

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
MATH 1314	College Algebra	3
Semester Total		12

Second Semester - Spring

PTAC 1410	Process Technology I - Equipment	4
PTAC 1332	Process Instrumentation I	3
PTAC 1354	Industrial Processes	3
SCIT 1414	Applied General Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture) AND	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		14

Third Semester - Summer

PTAC 2420	Process Technology II - Systems (Capstone)	4
PTAC 1350	Industrial Economics OR	
PTAC 2336	Process Instrumentation II	3
PTAC 2314	Principles of Quality	3
SCIT 1418	Applied Physics OR	
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		14

Total Minimum Credits for the Level 2 Certificate

40

RADIOGRAPHY

RADIOGRAPHY

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		13

FIRST YEAR

First Semester - Fall

RADR 1303	Patient Care	3
RADR 2309	Radiographic Imaging Equipment	3
RADR 1411	Basic Radiographic Procedures	4
RADR 1160	Clinical - Radiologic Technology/Science-Radiographer	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		14

Second Semester - Spring

RADR 1313	Principles of Radiographic Imaging I	3
RADR 2401	Intermediate Radiographic Procedures	4
RADR 1266	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	2
Semester Total		9

Third Semester - Summer

RADR 2260	Clinical - Radiologic Technology/Science - Radiographer	2
RADR 2331	Advanced Radiographic Procedures	3
Semester Total		5

SECOND YEAR**First Semester - Fall**

RADR 2333	Advanced Medical Imaging	3
RADR 2366	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	3
PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology	3
RADR 2340	Sectional Anatomy for Medical Imaging	3
	Semester Total	12

Second Semester - Spring

RADR 2217	Radiographic Pathology	2
RADR 2367	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	3
RADR 2213	Radiation Biology & Protection	2
	Semester Total	7

Third Semester - Summer

RADR 2335	Radiologic Technology Seminar (Capstone)	3
RADR 2167	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	1
	Semester Total	4

Total Minimum Credits for the AAS Degree **64**

¹ A list of electives appears in the Core Curriculum section of this catalog.

RADIOGRAPHY - COMPUTED TOMOGRAPHY

Enhanced Skills Certificate

SCH

First Semester - Fall

RADR 2340	Sectional Anatomy for Medical Imaging	3
CTMT 2336	Computed Tomography Equipment & Methodology	3
CTMT 2360	Clinical - Radiologic Technology/Science - Radiographer	3
CTMT 2361	Clinical - Radiologic Technology/Science - Radiographer	3

Semester Total **12**

Total Minimum Credits for the Enhanced Skills Certificate **12**

REAL ESTATE

REAL ESTATE - General

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RELE 1201	Principles of Real Estate I	2
ENGL 1301	Composition I	3
RELE 2201	Law of Agency	2
RELE 1211	Law of Contracts	2
RELE 1323	Real Estate Computer Application	3
RELE 1325	Real Estate Mathematics	3
Semester Total		18

Second Semester - Spring

RELE 1321	Real Estate Marketing	3
RELE 1238	Principles of Real Estate II	2
RELE 1200	Contract Forms & Addenda	2
RELE 1219	Real Estate Finance	2
RELE 1324	Loan Origination & Quality Control OR	
RELE 1309	Real Estate Law	3
Semester Total		12

SECOND YEAR

First Semester - Fall

ECON 2301	Principles of Macroeconomics	3
RELE 1303	Real Estate Appraisal	3
RELE 1307	Real Estate Investments	3
RELE 2331	Real Estate Brokerage	3
RELE 1381	Cooperative Education - Real Estate	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
RELE 1329	Fundamentals of Environmental Issues OR	
RELE 1315	Property Management	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
GEOL 1305	Environmental Science	3
RELE 2381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

REAL ESTATE - PROPERTY MANAGEMENT

Certificate - Level 1

SCH

First Semester - Fall

RELE 1335	Real Estate Construction	3
RELE 1315	Property Management	3
RELE 1307	Real Estate Investments	3
RELE 1309	Real Estate Law	3
RELE 1238	Principles of Real Estate II	2
Semester Total		14

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 1 Certificate **17**

REAL ESTATE - RESIDENTIAL

Certificate - Level 1

SCH

First Semester - Fall

RELE 1201	Principles of Real Estate I	2
RELE 1238	Principles of Real Estate II	2
RELE 1211	Law of Contracts	2
RELE 2201	Law of Agency	2
RELE 1200	Contract Forms & Addenda	2
RELE 1219	Real Estate Finance	2

Semester Total 12

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
RELE 1191	Special Topics in Real Estate	1

Semester Total 4

Total Minimum Credits for the Level 1 Certificate 16

RESPIRATORY THERAPY

RESPIRATORY THERAPY - RESPIRATORY THERAPIST

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
RSPT 1201	Introduction to Respiratory Care	2
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
MATH 1314	College Algebra	3
Semester Total		16

First Semester - Fall

RSPT 2258	Respiratory Care Patient Assessment	2
RSPT 1310	Respiratory Care Procedures I	3
RSPT 1360	Clinical- Respiratory Care Therapy/Therapist	3
RSPT 1240	Advanced Cardiopulmonary Anatomy & Physiology	2
Semester Total		10

Second Semester - Spring

RSPT 1311	Respiratory Care Procedures II	3
RSPT 1361	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 1225	Respiratory Care Sciences	2
RSPT 1213	Basic Respiratory Care Pharmacology	2
Semester Total		10

Third Semester - Summer

RSPT 1262	Clinical - Respiratory Care Therapy / Therapist	2
RSPT 2314	Mechanical Ventilation	3
Semester Total		5

SECOND YEAR**First Semester - Fall**

RSPT 2361	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 2255	Critical Care Monitoring	2
RSPT 2210	Cardiopulmonary Disease	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
	Semester Total	10

Second Semester - Spring

RSPT 2362	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 2325	Cardiopulmonary Diagnostics	3
RSPT 2353	Neonatal/Pediatric Cardiopulmonary Care	3
	Semester Total	9

Third Semester - Summer

RSPT 2262	Clinical - Respiratory Care Therapy/Therapist	2
RSPT 2230	Respiratory Care Examination Preparation (Capstone)	2
RSPT 2239	Advanced Cardiac Life Support	2
	Semester Total	6

Total Minimum Credits for the AAS Degree **66**

¹ A list of electives appears in the Core Curriculum section of this catalog.

SURGICAL TECHNOLOGY

ALLIED HEALTH - SURGICAL TECHNOLOGY- SPECIALIZATION

Associate of Applied Science SCH

Prerequisite Semester

XXXX #3## ¹	General Education Elective	3
HPRS 1201	Introduction to Health Professions	2
Semester Total		5

FIRST YEAR

First Semester - Fall

HPRS 1206	Essentials of Medical Terminology	2
SRGT 1361	Clinical - Surgical Technology/Technologist	3
SRGT 1409	Fundamentals of Perioperative Concepts & Techniques	4
SRGT 1405	Introduction to Surgical Technology	4
SCIT 1407	Applied Human Anatomy & Physiology I	4
Semester Total		17

Second Semester - Spring

SCIT 1408	Applied Human Anatomy & Physiology II	4
SRGT 1441	Surgical Procedures I	4
SRGT 1463	Clinical - Surgical Technology/Technologist	4
Semester Total		12

Third Semester - Summer

SRGT 1442	Surgical Procedures II	4
SRGT 2463	Clinical - Surgical Technology/Technologist (Capstone)	4
Semester Total		8

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
ENGL 1302	Composition II	3
Semester Total		6

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

SURGICAL TECHNOLOGY

Certificate - Level 2

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
Semester Total		2

First Semester - Fall

HPRS 1206	Essentials of Medical Terminology	2
SRGT 1361	Clinical - Surgical Technology/Technologist	3
SRGT 1409	Fundamentals of Perioperative Concepts & Techniques	4
SRGT 1405	Introduction to Surgical Technology	4
SCIT 1407	Applied Human Anatomy & Physiology I	4
Semester Total		17

Second Semester - Spring

SCIT 1408	Applied Human Anatomy & Physiology II	4
SRGT 1441	Surgical Procedures I	4
SRGT 1463	Clinical - Surgical Technology/Technologist	4
Semester Total		12

Third Semester - Summer

SRGT 1442	Surgical Procedures II	4
SRGT 2463	Clinical - Surgical Technology/Technologist (Capstone)	4
SRGT 2130	Professional Readiness	1
Semester Total		9

Total Minimum Credits for the Level 2 Certificate **40**

**SURGICAL TECHNOLOGY - ENDOSCOPY TECHNICIAN I
 Certificate - Level 2**

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
HITT 1305	Medical Terminology I	3
Semester Total		5

First Semester - Fall

ENDO 1371	The Art of Team Work and Professional Skills	3
ENDO 1472	Endoscopic Technology Theory	4
ENDO 1473	Fundamental of Aseptic Technique	4
ENDO 1176	Practicum (or Field Experience) I	1
SCIT 1407	Applied Human Anatomy and Physiology I OR	
BIOL 2301	Anatomy & Physiology I (lecture) AND	
BIOL 2101	Anatomy & Physiology I (lab)	4
Semester Total		16

Second Semester - Spring

ENDO 1475	EGD Colonoscopy & Enteroscopy	4
ENDO 1276	Practicum (or Field Experience) II	2
ENDO 1474	ERCP, EUS & Bronchoscopy (Capstone)	4
SCIT 1408	Applied Human Anatomy and Physiology II OR	
BIOL 2302	Anatomy & Physiology II (lecture) AND	
BIOL 2102	Anatomy & Physiology II (lab)	4
Semester Total		14

Total Minimum Credits for the Level 2 Certificate **35**

SURGICAL TECHNOLOGY - ACCELERATED ALTERNATIVE DELIVERY (AAD)

Occupational Skills Award

SCH

First Semester - Fall

HPRS 1206	Essentials of Medical Terminology	2
SRGT 1372	Comprehensive Anatomy & Physiology for the Surgical Technologist	3
SRGT 1405	Introduction to Surgical Technology	4
SRGT 2130	Professional Readiness	1
Total Minimum Credits for the Occupational Skills Award		10

SURGICAL TECHNOLOGY - STERILE PROCESSING TECHNICIAN

Occupational Skills Award

SCH

First Semester - Fall

HPRS 1201 Introduction to Health Professions 2

HITT 1305 Medical Terminology I 3

SRGT 1371 Sterile Processing 3

Semester Total 8

Second Semester - Spring

SRGT 1560 Clinical - Surgical Technology/Technologist 5

Semester Total 5

Total Minimum Credits for the Occupational Skills Award 13

TRANSLATION & INTERPRETATION

TRANSLATION & INTERPRETATION

Associate of Applied Science

FIRST YEAR

First Semester - Fall		SCH
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
TRAI 1371	Fundamentals of the Theory & Practice of Translation & Interpretation	3
TRAI 1373	Intercultural Communication	3
TRAI 1374	Introduction to General linguistics	3
Semester Total		15
Second Semester - Spring		
XXXX #3## ¹	Humanities/Fine Arts Elective	3
TRAI 1271	Technology for Translation & Interpretation	2
TRAI 1272	Terminology Management & Research	2
POFL 1305	Legal Terminology	3
TRAI 2271	Fundamentals of Specialized Written Translation (Sci-Tech)	2
TRAI 1372	Writing, Editing, & Revising for Translation	3
Semester Total		15

SECOND YEAR

First Semester - Fall		SCH
HITT 1305	Medical Terminology I	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
TRAI 2278	Fundamentals of Specialized Written Translation (Medical)	2
TRAI 2375	Localization and Audiovisual Translation	3
XXXX #3## ¹	General Education Elective	3
TRAI 2277	Fundamentals of Specialized Written Translation (Legal)	2
Semester Total		16
Second Semester - Spring		
TRAI 2279	Introduction to Interpreting I (Legal)	2
TRAI 2272	Introduction to Interpreting II (Medical)	2
TRAI 2273	Introduction to Interpreting III (Simultaneous)	2
XXXX #3## ¹	Math/Natural Science Elective	3
TRAI 2275	Advanced Project in Translation	2
TRAI 2376	Internship - Translation & Interpretation (Capstone)	3
Semester Total		14
Total Minimum Credits for the AAS		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

TRANSLATION & INTERPRETATION

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
TRAI 1371	Fundamentals of the Theory & Practice of Translation & Interpretation	3
TRAI 1372	Writing, Editing, & Revising for Translation	3
TRAI 1373	Intercultural Communication	3
Semester Total		15

Second Semester - Spring

HITT 1305	Medical Terminology I	3
TRAI 1271	Technology for Translation & Interpretation	2
POFL 1305	Legal Terminology	3
TRAI 1272	Terminology Management & Research	2
TRAI 2271	Fundamentals of Specialized Written Translation (Sci-Tech)	2
TRAI 2277	Fundamentals of Specialized Written Translation (Legal)	2
Semester Total		14

Third Semester - Summer

TRAI 2279	Introduction to Interpreting I (Legal)	2
TRAI 2275	Advanced Project in Translation	2
TRAI 2278	Fundamentals of Specialized Written Translation (Medical)	2
TRAI 2272	Introduction to Interpreting II (Medical)	2
TRAI 2273	Introduction to Interpreting III (Simultaneous)	2
TRAI 2376	Internship - Translation & Interpretation (Capstone)	3
Semester Total		13

Total Minimum Credits for the Level 2 Certificate **42**

Welding Technology

WELDING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
MATH 1314	College Algebra	3
Semester Total		14

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)	4
WLDG 1413	Introduction to Blueprint Reading for Welders	4
Semester Total		15

SECOND YEAR

First Semester - Fall

SCH

XXXX #3## ¹	Humanities / Fine Arts Elective	3
WLDG 2451	Advanced Gas Tungsten Arc Welding (GMAW)	4
METL 1301	Introduction to Metallurgy	3
WLDG 1435	Introduction to Pipe Welding	4
QCTC 2331	Standards	3
Semester Total		17

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
WLDG 2453	Advanced Pipe Welding	4
WLDG 2413	Intermediate Welding Using Multiple Processes	4
WLDG 1391 ²	Special Topics in Welding / Welding Technologies (Capstone) OR	
WLDG 2389 ²	Internship - Welding Technology / Welder	3
Semester Total		14

Total Minimum Credits for the AAS

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Choose one as the capstone WLDG 1391 or WLDG 2389

WELDING TECHNOLOGY - COMBINATION PIPE WELDING

Certificate - Level 1

SCH

First Semester - Fall

WLDG 1407 Introduction to Welding Using Multiple Processes 4

WLDG 1428 Introduction to Shielded Metal Arc Welding (SMAW) 4

WLDG 1434 Introduction to Gas Tungsten Arc Welding (GTAW) 4

Semester Total 12

Second Semester - Spring

WLDG 1413 Introduction to Blueprint Reading for Welders 4

WLDG 1457 Intermediate Shielded Metal Arc Welding (SMAW) 4

WLDG 2451 Advanced Gas Tungsten Arc Welding (GTAW) 4

Semester Total 12

Third Semester - Summer

WLDG 1435 Introduction to Pipe Welding 4

WLDG 2413 Intermediate Welding Using Multiple Processes 4

WLDG 2453 Advanced Pipe Welding (Capstone) 4

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 36

WELDING TECHNOLOGY- STRUCTURAL WELDING

Certificate - Level 1

SCH

First Semester - Fall

WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1413	Introduction to Blueprint Reading for Welders	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4

Semester Total **12**

Second Semester - Spring

WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)	4
WLDG 2447	Advanced Gas Metal Arc Welding (GMAW) (Capstone)	4

Semester Total **8**

Total Minimum Credits for the Level 1 Certificate **20**

CONTINUING EDUCATION DEGREES & CERTIFICATES

ADVANCED MANUFACTURING

Computer Numerical Controlled Operator

Institutional Certificate		Contact Hours
MCHN 2003	Fundamentals of CNC Machine Controls	48
MCHN 2031	Operation of CNC Turning Centers	64
MCHN 2034	Operation of CNC Machining Centers	64
Total minimum contact hours for this certificate		176

Computer Numerical Controlled Programmer

Institutional Certificate		Contact Hours
DFTG 1000	Introduction to SolidWorks	24
MCHN 1026	Introduction to Computer-Aided Manufacturing	48
MCHN 2038	Advanced Computer-Aided Manufacturing	64
Total minimum contact hours for this certificate		136

BUSINESS

Child Development Associate

Occupational Skills Award		Contact Hours
CDEC 1017	Child Development Associate I	48
CDEC 2022	Child Development Associate II	48
CDEC 2024	Child Development Associate III	48
Total minimum contact hours for this certificate		144

Forklift Technician

Institutional Certificate		Contact Hours
CNSE 1003	Forklift Operator Theory	7
CNSE 1003	Forklift Operator Application	7
Total minimum contact hours for this certificate		14

Human Resources Series

Institutional Certificate		Contact Hours
HRPO 1091	Introduction to Human Resources	8
HRPO 1091	Talent Management	8
HRPO 1091	Compensation and Benefits	8
HRPO 1091	Organizational Development	8
HRPO 1091	Employee Relations	8
Total minimum contact hours for this certificate		40

Lean Six Sigma Green Belt

Institutional Certificate		Contact Hours
BMGT 1091	Lean Six Sigma Green Belt	48
Total minimum contact hours for this certificate		48

Logistics & Supply Chain

Institutional Certificate		Contact Hours
LMGT 1021	Certified Logistics Associate/Certified Logistics Technician	48
CNSE 1003	Forklift Operator Training	14
Total minimum contact hours for this certificate		62

Paralegal

Institutional Certificate		Contact Hours
LGLA 1091	Introduction to Law	16
LGLA 1091	Legal Research I	16
LGLA 1091	Legal Research II	16
LGLA 1091	Legal Research III	16
LGLA 1091	Legal Writing	16
LGLA 1091	Texas Civil Litigation I	16
LGLA 1091	Texas Civil Litigation II	16
LGLA 1091	Texas Civil Litigation III	16
Total minimum contact hours for this certificate		128

CONSTRUCTION TRADES

Air Conditioning Technician

Occupational Skills Award		Contact Hours
HART 1038	Air Conditioning I (English and Spanish)	80
HART 1005	Air Conditioning II (English and Spanish)	80
Total minimum contact hours for this certificate		160

AUTOCAD

Institutional Certificate		Contact Hours
DFTG 1040	AutoCAD I	48
DFTG 2011	AutoCAD II	32
Total minimum contact hours for this certificate		80

Carpentry Helper

Institutional Certificate		Contact Hours
CNBT 1001	Introduction to Construction Industry	72
CRPT 1029	Introduction to Carpentry	128
CRPT 1001	Basic Framing	48
Total minimum contact hours for this certificate		248

Electrical Technician

Occupational Skills Award		Contact Hours
ELPT 1011	Electrical I (English and Spanish)	80
ELPT 1029	Electrical II (English and Spanish)	80
Total minimum contact hours for this certificate		160

Plumbing Technician

Institutional Certificate		Contact Hours
PFPB 1013	Introduction to Plumbing Trade	80
PFPB 2008	Piping Standards and Materials	80
Total minimum contact hours for this certificate		160

HEALTH

Certified Nurse Aide (CNA)

Institutional Certificate		Contact Hours
NURA 1001	Certified Nurse Aide	108
Total minimum contact hours for this certificate		108

Comprehensive Coding Systems

Occupational Skills Award		Contact Hours
HITT 1003	Medical Terminology II	48
HITT 1013	Insurance Coding	48
POFM 2010	Intermediate Medical Coding	48
HITT 2046	Advanced Medical Coding	48
HITT 2000	HIPPA Compliance (optional)	8
Total minimum contact hours for this certificate		192

EKG Technician

Occupational Skills Award		Contact Hours
ECRD 1091	EKG Lab 1- 12 Lead	32
ECRD 1011	Electrocardiography	64
CVTT 1060	Electrocardiography Clinical	120
ECRD 1091	EKG Lab 2 – Stress Testing	24
Total minimum contact hours for this certificate		240

Medical Business Office Professional

Occupational Skills Award		Contact Hours
HITT 1011	Health Information Systems	48
POFM 1017	Medical Administrative Support	48
POFM 1027	Medical Insurance Billing	48
HITT 1005	Medical Terminology I	32
HITT 2000	HIPPA Compliance (optional)	8
Total minimum contact hours for this certificate		176

Patient Care Technician

Institutional Certificate		Contact Hours
NURA 1001	Certified Nurse Aide	108
ECRD 1091	EKG Lab 1 – 12 Lead	32
PLAB 1023	Phlebotomy	96
PLAB 1060	Phlebotomy Clinical	120
Total minimum contact hours for this certificate		356

Phlebotomy Technician

Occupational Skills Award		Contact Hours
PLAB 1023	Phlebotomy	96
PLAB 1060	Phlebotomy Clinical	120
PLAB 1091	Phlebotomy Exam Review (optional)	8
Total minimum contact hours for this certificate		216

Telemetry Technician

Occupational Skills Award		Contact Hours
ECRD 1011	Electrocardiography	64
EMSP 1050	12- Lead Interpretation	24
CVTT 1060	EKG Clinical	120
Total minimum contact hours for this certificate		208

INDUSTRIAL TECHNOLOGY AND ENERGY

Industrial Scaffold Builder

Institutional Certificate		Contact Hours
CBFM 1021	Industrial Scaffolding	80
Total minimum contact hours for this certificate		80

RIGONE (Oil & Gas Driller)

Occupational Skills Award		Contact Hours
PTRT 1001	Introduction to Petroleum Industry	64
PTRT 1091	Roustabout I	64
PTRT 1091	Roustabout II	64
Total minimum contact hours for this certificate		192

INFORMATION TECHNOLOGY

A+ Certification

Institutional Certificate		Contact Hours
ITSC 2040	A+ Certification	72
Total minimum contact hours for this certificate		72

Desktop Support & Networking Specialist

Occupational Skills Award		Contact Hours
ITSC 2040	A+ Certification	72
ITCC 1014	CCNA 1: Introduction to Networks	96
ITCC 1044	CCNA 2: Switching, Routing and Wireless Essentials	96
ITCC 2020	CCNA 3: Enterprise Networking, Security, and Automation	96
Total minimum contact hours for this certificate		360

PUBLIC SAFETY

Basic Firefighter

Continuing Education Certificate		Contact Hours
FIRS 1001	Firefighter Certification I	96
FIRS 1003	Firefighter Agility & Fitness	32
FIRS 1007	Firefighter Certification II	112
FIRS 1013	Firefighter Certification III	80
FIRS 1019	Firefighter Certification IV	64
FIRS 1023	Firefighter Certification V	96
FIRS 1029	Firefighter Certification VI	80
FIRS 1033	Firefighter Certification VII	112
Total minimum contact hours for this certificate		672

Basic Peace Officer Licensing

Continuing Education Certificate		Contact Hours
CJLE 1006	Basic Peace Officer I	174
CJLE 1012	Basic Peace Officer II	174
CJLE 1018	Basic Peace Officer III	174
CJLE 1024	Basic Peace Officer IV	174
Total minimum contact hours for this certificate		696

TRANSPORTATION

Commercial Truck Driver

Occupational Skills Award		Contact Hours
CVOP 1013	Professional Truck Driving I	126
CVOP 1040	Professional Truck Driving II	160
Total minimum contact hours for this certificate		286

WELDING TECHNOLOGY

Welding Technician

Occupational Skills Award		Contact Hours
WLDG 1007	Introduction to Welding (English and Spanish)	160
Total minimum contact hours for this certificate		160

Advanced Welding Technician

Institutional Certificate		Contact Hours
WLDG 1007	Introduction to Welding	160
WLDG 1013	Introduction to Blueprint Reading for Welders	64
WLDG 1034	TIG Welding	96
Total minimum contact hours for this certificate		320

Industrial Pipefitter

Institutional Certificate		Contact Hours
Pre-requisite: Completion of Industrial Pipefitter Helper Institutional Certificate		
PFPB 2010	Intermediate Blueprint Reading for Pipefitters	64
PFPB 2008	Pipefitting Standards and Materials	64
PFPB 2041	Pipe Fabrication and Installation II	96
PFPB 2032	Advance Pipefitting, standards, and installation	96
Total minimum contact hours for this certificate		320

Industrial Pipefitter Helper

Institutional Certificate		Contact Hours
PFPB 1050	Plumbing and Pipefitting Equipment	96
PFPB 1008	Basic Pipefitting Skills	96
WLDG 1013	Introduction to Blueprint Reading	64
PFPB 2007	Pipe Fabrication and Installation I	96
Total minimum contact hours for this certificate		352

Sheet Metal Technician

Institutional Certificate		Contact Hours
MCHN 1001	Sheet Metal I	64
MCHN 1049	Sheet Metal II	64
Total minimum contact hours for this certificate		128

ALTERNATIVE TEACHER CERTIFICATION PROGRAM

The Alternative Teacher Certification Program (ATCP) at Houston Community College is a state-approved comprehensive educator preparation program that trains individuals for Texas standard certification in elementary and secondary education. All candidates for the ATCP Program must have previously obtained a Bachelor's degree from an accredited institution of higher education.

Year 1		Contact Hours
ACP 1000	Accelerated Teacher Certification Program	56
ACP 2000	Teacher Certification II	56
ACP 3000	Teacher Certification III	56
ACP 4000	Teacher Certification IV	56
ACP 1001	Human Growth & Development (Online Training)	16
ACP 1002	Curriculum & Instruction (Online Training)	17
ACP 1003	Assessment (Online Training)	16
ACP 1004	Critical Thinking (Online Training)	10
ACP 1005	Special Populations and Student Motivation (Online Training)	12
ACP 1006	Classroom Management (Online Training)	12
ACP 1007	Schools, Parents, and Communities (Online Training)	10
ACP 1008	Teaching in Texas (Online Training)	10

Pre-Internship & Testing Requirements

Field Based Experience	30
Test Preparation (Content) (if applicable)	4 weeks
Test Preparation (Pedagogy)	4 weeks

Year 2

Internship I	One Semester
Internship II	One Semester

LANGUAGES – CE INTENSIVE ENGLISH

Our Continuing Education (CE) Languages Department teaches Intensive English to college students and adults through a curriculum that helps students learn the English language skills for the working student and for academic studies in the United States or for Houston Community College Certificate Programs. The CE Intensive English Program offers three of the 5 levels of the HCC Intensive English Program— Level Intro, Level 1 and Level 2. Upon completion of the CE Intensive English level 2, students transition to ESOL Level 3 without further testing.

LEVEL INTRO

Year 1		Contact Hours
COMG 1000	English Language Skills Basic	60
COMG 1075	Listening & Speaking Skills, Foundations	60
COMG 1070	Practical Language Skills, Basic A (Mandatory for F1 International Students)	20
COMG 1001	English Language Skills 1	60
COMG 1076	Reading & Writing Skills, Foundations	60
COMG 1070	Practical Language Applications, Basic B (Mandatory for F1 International Students)	20

LEVEL 1

Year 1		Contact Hours
COMG 1004	English Language Skills 2	60
COMG 1077	Listening & Speaking Skills, Introductory	70
COMG 1071	Practical Language Applications 1 (Mandatory for F1 International Students)	20
COMG 1005	English Language Skills 3	60
COMG 1078	Reading & Writing Skills, Introductory	70
COMG 1072	Practical Language Applications 2 (Mandatory for F1 International Students)	20

LEVEL 2

Year 1		Contact Hours
COMG 1007	English Language Skills 4	60
COMG 2070	Listening & Speaking Skills, Intermediate	70
COMG 1073	Practical Language Applications 3 (Mandatory for F1 International Students)	20
COMG 1008	English Language Skills 5	60
COMG 2071	Reading & Writing Skills, Intermediate	70
COMG 1074	Practical Language Applications 4 (Mandatory for F1 International Students)	20

VAST ACADEMY

VAST Academy provides post-secondary transition programs and comprehensive support services, which lead to meaningful credentials, employment and independence for differently-abled individuals. Opportunities include vocational certificates, pre-college and freshman success bridge courses, career readiness credentials, internships and employment assistance offered through an inclusive, relevant and affordable avenue.

Occupational Skills Certificate

The Occupational Skills Certificate Program is a two-year career readiness workforce credential, offering courses that enhance functional reading, math, writing, and independent living, as well as develop basic computer/financial literacy and human relations skills for the workplace. A 200-hour internship at a local employment site is offered upon successful completion of all required courses.

Retail Training Certificate

This two-term course prepares students for a job in the retail field. Students learn a range of technical, practical and organizational skills valued in the workplace and society. Classroom instruction is offered through an online component and a supervised hands-on workplace experience with a local employer.

WorkKeys Career Readiness Credential

This instructor-led course and online training module prepares students to receive the American College Testing (ACT) WorkKeys Career Readiness Credential. This job skills assessment system helps employers select, hire, train, develop and retain a high performing workforce.

COURSE DESCRIPTIONS – ACADEMIC & WORKFORCE

ABDR 1215 - Vehicle Trim and Hardware

Credits: 2 (1 lecture, 4 lab). An in depth study of vehicle trim and glass service. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1280 - Cooperative Education - Autobody / Collision and Repair Technology / Technician

Credits: 2 (1 lecture, 10 External). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: ABDR 1431,1441,1207, 1215,1458,1442, 2441; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1291 - Special Topics in Auto/Automotive Body Repairer

Credits: 2 (1 lecture, 4 lab). Advanced techniques in blending, matching and application in the refinishing process, including custom applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1307 - Collision Repair Welding

Credits: 3 (2 lecture, 3 Lab). A study of collision repair welding and cutting procedures. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1431 - Basic Refinishing

Credits: 4 (3 lecture, 2lab). An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of trim and replacement parts. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1441 - Structural Analysis and Damage Repair I

Credits: 4 (3 lecture, 2 lab). Expanded training in the roughing and shaping procedures on automotive sheet metal necessary to make satisfactory body repairs. Emphasis on the alignment of component parts such as doors, hood, front-end assemblies, and deck lids. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1442 - Structural Analysis and Damage Repair II

Credits: 4 (3 lecture, 2 lab). Continuation of general repair and replacement procedures for damaged structural parts and collision damage. Prerequisite: ABDR 1441. Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1458 - Intermediate Refinishing

Credits: 4 (3 lecture, 2 lab). Expanded training in mixing and spraying of automotive topcoats. Emphasis on formula ingredient, reducing, thinning, and special spraying techniques. Introduction to partial panel refinishing techniques and current industry paint removal techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2431 - Structural Analysis and Damage Repair III

Credits: 4 (3 lecture, 2 lab). Advanced concepts in the application of theories of auto body repair and replacement of major body units. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2441 - Major Collision Repair and Panel Replacement

Credits: 4 (3 lecture, 2 lab). Instruction in preparation of vehicles for major repair processes. This course covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2449 - Advanced Refinishing

Credits: 4 (3 lecture, 2 lab). Skill development in multi-stage refinishing techniques. Further development in identification of problems and solutions in color matching and partial panel refinishing. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACCT 2301 - Principles of Financial Accounting

Credits: 3 (3 lecture). This course covers the fundamentals of financial accounting, including double-entry accounting and the accounting cycle. Other topics include cash, receivables, inventories, plant assets, liabilities, partnerships, corporation, investments, statements of cash flows and interpretation of financial statements. Prerequisite: Departmental Approval

ACCT 2302 - Principles of Managerial Accounting

Credits: 3 (3 lecture). This course is an introduction to the fundamental concepts of managerial accounting appropriate for all organizations. Students will study information from the entity's accounting system relevant to decisions made by internal managers, as distinguished from information relevant to users who are external to the company. The emphasis is on the identification and assignment of product costs, operational budgeting and planning, cost control, and management decision making. Topics include product costing methodologies, cost behavior, operational and capital budgeting, and performance evaluation. Prerequisite: ACCT 2301

ACNT 1303 - Introduction to Accounting I

Credits: 3 (3 lecture). A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Coverage also includes the fundamental principles of double-entry bookkeeping, financial statements, trial balances, worksheets, special journals, adjusting entries and closing entries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1305 - Forensic Accounting

Credits: 3 (3 lecture). Accounting fraud and examination designed to provide a basic understanding of the impact that fraud has on an organization. (This course is intended to help students understand the role of the Forensic Accountant. Upon completion of this course the students will learn special skills in accounting, auditing, finance, quantitative methods, certain areas of the law, research, and investigative skills to collect, analyze, and evaluate evidential matter and to interpret and communicate findings. Finance and quantitative skills will be addressed since they are especially important to Forensic Accountants who calculate damages. The complexity of Forensic Accounting has gained considerable attention over the past five years and will continue to gain momentum.) Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1313 - Computerized Accounting Applications

Credits: 3 (2 lecture, 2 lab). A study of utilizing the computer to develop and maintain accounting record-keeping systems, make management decisions, record daily business transactions, and generate financial statements using Peachtree or QuickBooks. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1329 - Payroll and Business Tax Accounting

Credits: 3 (3 lecture). A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1331 - Federal Income Tax: Individual

Credits: 3 (3 lecture). A study of the laws currently implemented by the IRS, providing a working knowledge of preparing taxes for the individual. Prerequisite: ACCT 2301; Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1335 - Accounting Ethics

Credits: 3 (3 lecture). Introduction to professional ethics in the accounting and business environments. This course may also be offered for qualifying education credit for CPA examination by Texas community colleges that meet Texas State Board of Accountancy standards. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1347 - Federal Income Tax for Partnerships and Corporations

Credits: 3 (3 lecture). Introduction to the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for a partnership, sub chapter S, and corporation. Prerequisite: ACNT 1331; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1382 - Cooperative Education-Accounting

Technology/Technician and Bookkeeping

Credits: 3 (1 lecture, 20 External) Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and work-related activities in student's major. Prerequisite: Department Program Approval and 20 hours a week employment; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1391 - Special Topics in Accounting: Fraud Examinations

Credits: 3 (3 lecture). Course will provide an overview of how and why occupational fraud is committed, the principles and methodologies of prevention, detection and investigation of fraud using accounting, auditing and investigative skills. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1392 - Special Topics in Accounting: Small Business Accounting

Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include essential management skills and how to prepare a business plan and marketing strategies. Practical guidance is provided for selecting and maintaining a cost-effective accounting system, records retention, budgets and cash flow projections. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2303 - Intermediate Accounting I

Credits: 3 (3 lecture). Critical analysis of general accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis on current theory and practice. Covers the theoretical and practical basis for financial statements, present value applications, and the theory and practice of accounting for cash, receivables, inventories, liabilities, long-term investments, depreciable and depletable property, and intangible assets. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2304 - Intermediate Accounting II

Credits: 3 (3 lecture). Continued in-depth analysis of generally accepted accounting principles underlying the preparation of financial statements including comparative analysis and statement of cash flows. Topics also included are bonds, leases, pension plans, corporate paid-in- capital, special purpose securities, retained earnings, tax allocation, inflation accounting, funds statement, and financial statement analysis. Prerequisite: ACNT 2303; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2309 Cost Accounting

Credits: 3 (3 lecture). A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing. Coverage also includes historical cost systems, work-in-process inventories, material and labor control, multiple products, budgeting, applying overhead, standard costs, direct costing, evaluating profit performance, and distribution costs. Prerequisite: 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2330 - Governmental and Not-for-Profit Accounting

Credits: 3 (3 lecture). Basic concepts and techniques of fund accounting, financial reporting for governmental and not-for-profit entities. Accounting cycle for funds and account groups and related financial statements. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2331 - Internal Control and Auditing

Credits: 3 (3 lecture). A study of internal control and auditing standards and processing used by internal auditors, managers, and independent public accountants. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2333 - Advanced Accounting

Credits: 3 (3 lecture). Methods of measuring and communicating economic information, including consolidated statements, partnerships, real estate, foreign operations, and fund units. Prerequisite: ACNT 2304; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2382 - Cooperative Education-Accounting Technology/Technician and Bookkeeping

Credits: 3 (1 lecture, 20 External) Continuation of ACNT 1382. Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and work-related activities in student's major. Prerequisite: ACNT 1382; 20 hours a week employment & departmental approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AGRI 1309 - Computers in Agriculture

Credits: 3 (2 lecture, 2 lab). Use of computers in agricultural applications. Introduction to programming languages, word processing, electronic spreadsheets and agricultural software.

ANTH 2101 - Physical Anthropology (Lab)

Credits: 1 (2 lab). ANTH 2101 is a 1-unit laboratory course. Students use physical anthropological methods and tools to solve problems in the areas of genetics, human variation, human osteology, primate biology and behavior, and human evolution. A problem solving approach is stressed in applying scientific fundamentals including the techniques of observation, measurement, and critical thinking. Core Curriculum Course.

ANTH 2301 - Physical Anthropology (Lecture)

Credits: 3 (3 lecture). Introduction to Physical Anthropology explores the relationship between culture and biology through the methods, theory and research of biological anthropology. Students learn about basic mechanisms of genetic change in populations and the relationships between humans and the other primates. The appearance of humans and their bipedal ancestors approximately four million years ago and their culture History, Civilization, through the Paleolithic age are examined in detail. Students learn about biological variation and adaptation in human populations, responses to the environment, race, and other issues and their applications. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ANTH 2302 - Introduction to Archaeology

Credits: 3 (3 lecture). Introduction to Archaeology provides a survey of the basic methods, theory and research of scientific archaeology. Human cultures and behaviors are identified and interpreted from material remains of over 2.5 million years of the human past. Students learn how anthropologists build cultural History, Civilization, from artifacts and material evidence of human activity, reconstruct past life ways, and explain similarities and differences of human cultures. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ANTH 2346 - General Anthropology

Credits: 3 (3 lecture). This introductory survey of the four subfields of anthropology focuses on the cultural and biological diversity of humans including hominid prehistory, Civilization, the emergence of Paleolithic cultures, and the agricultural and urban revolutions from an anthropological perspective. Past and present human adaptations and culture are surveyed and analyzed using the comparative and holistic approach of biological anthropology, archaeology, linguistics and ethnology. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ANTH 2351 - Cultural Anthropology

Credits: 3 (3 lecture). This course focuses on culture, the ways people live and give meaning, form and organization to their lives as they adapt to various environments and conditions both in and beyond the borders of the U.S. Study of the descriptions and analysis of cultural diversity provide the basis for evaluating cultural components of everyday life including recognition of ethnocentrism, intercultural communication and understanding local and global culture in a multicultural and transforming world. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ANTH 2389 - Academic Cooperative in Anthropology

Credits: 3 (1 lecture, 8 External). An instructional program designed to integrate on-campus study with practical hands-on experience in anthropology. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human culture and social behavior and/or institutions and processes. Prerequisite: Must be placed into college-level reading and college-level writing.

ARAB 1411 - Beginning Arabic I

Credits: 4 (3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite).

ARAB 1412 - Beginning Arabic II

Credits: 4 (3 lecture, 2 lab). Continuation of ARAB 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: ARAB 1411 or department approval. Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite).

ARCE 1352 - Structural Drafting

Credits: 3 (2 lecture, 4 lab). A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARCE 2352 - Mechanical and Electrical Systems

Credits: 3 (2 lecture, 4 lab). The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction. Prerequisite: DFTG 1305, DFTG 1309 and DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

ARTC 1302 - Digital Imaging I (Photoshop)

Credits: 3 (2 lecture, 4 lab). Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1305 - Basic Graphic Design

Credits: 3 (2 lecture, 4 lab). Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1309 - Basic Illustration

Credits: 3 (2 lecture, 4 lab). Introduction to drawing techniques as they pertain to the commercial illustration industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1313 - Digital Publishing I

Credits: 3 (2 lecture, 4 lab). The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1317 - Design Communication I

Credits: 3 (2 lecture, 4 lab). Study of design development relating to graphic design terminology, tools and media, and layout and design concepts. Topics include integration of type, images and other design elements, and developing computer skills in industry standard computer programs. Prerequisite: ARTC 1325 and ARTC 1305 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1321 - Illustration Techniques I

Credits: 3 (2 lecture, 4 lab). A study of illustration techniques in various media. Emphasis on creative interpretation and the discipline of draftsmanship for visual communication of ideas. Prerequisite: ARTC 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1325 - Introduction to Computer Graphics

Credits: 3 (2 lecture, 4 lab). A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1353 - Computer Illustration (Illustrator)

Credits: 3 (2 lecture, 4 lab). Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings. Prerequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1359 - Visual Design for New Media

Credits: 3 (2 lecture, 4 lab). Visual design elements as they relate to new media. Emphasizes aesthetics and visual problem solving such as typographic issues, color management, hierarchy of information, image optimization, and effective layout. Prerequisite: ARTC 1353, ARTC 2301

ARTC 2305 - Digital Imaging II

Credits: 3 (2 lecture, 4 lab). Principles of digital image processing and electronic painting. Emphasis on bit-mapped or raster-based image marking and the creative aspects of electronic illustration for commercial or fine art applications. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2311 - History of Communication Graphics

Credits: 3 (3 lecture). Survey of the evolution of graphic arts in relation to the history of art. Includes formal, stylistic, social, political, economic, and historical aspects. Emphasis on art movements, schools of thought, individuals, and technology as they interrelate with graphic arts.

ARTC 2313 - Digital Publishing II

Credits: 3 (2 lecture, 4 lab). Includes layout procedures from thumbnails and roughs to final comprehensive and print output. Emphasis on design principles for the creation of advertising and publishing materials and techniques for efficient planning and documenting projects. Prerequisite: ARTC 1305, ARTC 1313, ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2317 - Typographic Design

Credits: 3 (2 lecture, 4 lab). Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography. Prerequisite: ARTC 1302, 1305, 1353, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: ARTC 2313 or Department Approval

ARTC 2335 - Portfolio Development for Graphic Design

Credits: 3 (2 lecture, 4 lab). Preparation of a portfolio comprised of completed graphic design class projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTC 2347 - Design Communication II

Credits: 3 (2 lecture, 4 lab). An advanced study of the design process and art direction. Emphasis on form and content through the selection, creation, and integration of typographic, photographic, illustrative, and design elements. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTS 1301 - Art Appreciation

Credits: 3 (3 lecture). A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. This introduction to the visual arts is a global investigation of artistic styles, methods of artistic production and media. Various works will be analyzed and defined in relation to the formal elements and the principles of design. Universal themes are studied within their historical, political, economic, theological, sociological, conceptual, and ethnic contexts. Students will also develop critical thinking and observational skills through the creation of hands-on art projects. This course satisfies the creative arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

ARTS 1303 - Art History I (Prehistoric to the 14th Century)

Credits: 3 (3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. This course is a global investigation of the styles and methods of artistic production covering Prehistoric through Gothic periods. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, and metal arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, and ethnic contexts. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

ARTS 1304 - Art History II (14th Century to the Present)

Credits: 3 (3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day. This course is a global investigation of the styles and methods of artistic production covering the Renaissance period to Present. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, metal arts, photography, and digital arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, conceptual and ethnic contexts. ARTS 1303 is not a prerequisite. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

ARTS 1311 - Design I (2-Dimensional Design)

Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of two-dimensional design. This beginning studio course explores the fundamentals of two-dimensional design: line, shape, texture, value, color and composition. A variety of media will be used. Recommended but not required as a first studio course.

ARTS 1312 - Design II (3-Dimensional Design)

Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. A beginning studio course that explores the fundamentals of three-dimensional design: line, plane, mass, surface, light and color in space. A variety of media will be used. Recommended but not required to be taken before Sculpture, Ceramics or Jewelry. Prerequisite: ARTS 1311

ARTS 1313 Foundations of Art

Credits: 3 (2 lecture, 2 lab). Introduction to the creative media designed to enhance artistic awareness and sensitivity through the creative and imaginative use of art materials and tools. Includes art history and culture through the exploration of a variety of art works with an emphasis on aesthetic judgment and growth.

ARTS 1316 - Drawing I

Credits: 3 (2 lecture, 4 lab). A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline. This beginning drawing course develops students' observation skills through experimentation with various approaches, styles, techniques, and media. Recommended but not required to be taken before Life Drawing, Painting or Printmaking. Foundation Drawing I is a prerequisite for Foundation Drawing II.

ARTS 1317 - Drawing II

Credits: 3 (2 lecture, 4 lab). A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline. This studio course builds upon the skills learned in Drawing I. Emphasis will be upon further media experimentation and development of a personal style. Drawing I is a prerequisite. Prerequisite: ARTS 1316

ARTS 2311 - Design III (Color Theory)

Credits: 3 (2 lecture, 4 lab). Studio art course that is a theoretical and practical study of color and composition in art and design. The course consists of studio-based projects using the formal and conceptual aspects of color. The course also examines the functions of color in art from different historical and cultural perspectives. Prerequisite: Department approval after instructor review of student design portfolio

ARTS 2313 - Graphic Design

Credits: 3 (2 lecture, 4 lab). Studio course that introduces basic objectives, principles, and methods used in graphic design. The course focuses on creativity, aesthetic judgment, and critical-thinking skills to expand conceptual solutions within the realm of contemporary graphic design.

ARTS 2316 - Painting I

Credits: 3 (2 lecture, 4 lab). Studio art course that introduces the fundamental principles, materials, and techniques of painting. Painting I is a prerequisite for Painting II.

ARTS 2317 - Painting II

Credits: 3 (2 lecture, 4 lab). Studio art course that furthers the study of the principles, materials, and techniques of painting. Painting I is a prerequisite for Painting II. Prerequisite: ARTS 2316

ARTS 2323 - Life Drawing

Credits: 3 (2 lecture, 4 lab). Studio art course that introduces the analytic study of the human form and the figure's potential for compositional and expressive use in drawing.

ARTS 2326 - Sculpture

Credits: 3 (2 lecture, 4 lab). A studio art course that introduces the materials, processes, and issues pertaining to the making of three-dimensional objects and environments. The course explores the use of varied materials and techniques along with the formal and conceptual principles that form the basis of contemporary sculpture.

ARTS 2333 - Printmaking

Credits: 3 (2 lecture, 4 lab). A studio art course that introduces the materials, processes, and concepts pertaining to traditional and contemporary printmaking. The course explores the use of varied tools and techniques along with the formal and conceptual principles to create editioned and unique works. Printmaking I is a prerequisite for Printmaking II.

ARTS 2341 - Metals

Credits: 3 (2 lecture, 4 lab). A studio art course that introduces metalsmithing using basic techniques in jewelry design and metal construction. The course provides instruction and practical fabrication experience as it relates to the design and production of small-scale functional and/or non-functional objects.

ARTS 2346 - Ceramics I

Credits: 3 (2 lecture, 4 lab). A studio art course that introduces basic building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery. Ceramics I is a prerequisite for Ceramics II.

ARTS 2347 - Ceramics II

Credits: 3 (2 lecture, 4 lab). A studio art course that furthers the study of building, throwing, and other techniques as it relates to the design and production of ceramic sculpture and pottery. Ceramics I is a prerequisite for Ceramics II. Prerequisite: ARTS 2346.

ARTS 2348 - Digital Arts

Credits: 3 (2 lecture, 4 lab). Studio art course that introduces the potential of basic digital media manipulation and graphic creation. The course emphasizes still and time-based media.

ARTS 2356 - Photography I (Fine Arts Emphasis)

Credits: 3 (2 lecture, 4 lab). A studio art course that introduces the technical and conceptual basics of photography as a creative medium. Photography I is a prerequisite for Photography II.

ARTS 2357 - Photography II (Fine Arts Emphasis)

Credits: 3 (2 lecture, 4 lab). A studio art course that furthers the study of the technical and conceptual basics of photography as a creative medium. Photography I is a prerequisite for Photography II. Prerequisite: ARTS 2356

ARTS 2366 - Watercolor

Credits: 3 (2 lecture, 4 lab). Studio art course that introduces the fundamental principles, materials, and techniques of watercolor and other water-based media.

ARTS 2389 Academic Cooperative

Credits: 3 (3 lecture) An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of studio art and/or art history. It involves career-related activities in the field of art and design, offered through an individualized agreement between the college, employer/arts organization, and student. Under the supervision of the college and the organization, the student combines classroom learning with real-world experience. Pre-requisite: Department approval/permission required.

ARTV 1303 - Basic Animation

Credits: 3 (2 lecture, 4 lab). Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences.

ARTV 1341 - 3-D Animation I

Credits: 3 (2 lecture, 4 lab). Intermediate level 3-D course introducing animation tools and techniques used to create movement. Emphasis on using the principles of animation. Prerequisite: ARTV 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1345 - 3-D Modeling and Rendering I

Credits: 3 (2 lecture, 4 lab). Techniques of three-dimensional (3-D) modeling utilizing industry standard software. Includes the creation and modification of 3-D geometric shapes, use of a variety of rendering techniques, camera, light sources, texture, and surface mapping. Prerequisite: ARTC 1302 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1351 - Digital Video

Credits: 3 (2 lecture, 4 lab). Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation. Prerequisite: IMED 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1371 - Introduction to 3D Printing Technology

Credits: 3 (2 lecture, 4 lab). The 3D Printing course is a hands-on, project-based learning (PBL) course which allows students to design and fabricate 3D objects using 3D computer applications and 3D printers. This course also focuses on prototyping an invention, creating artwork, and building a customized product of their choice. Students will analyze real industry cases, and apply 3D printing technology appropriately while gaining hands-on experience with two leading 3D printing technologies employed in today's industry.

ARTV 2301 - 2-D Animation I

Credits: 3 (2 lecture, 4 lab). Skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentation. Emphasis on conceptualization, creativity, and visual aesthetics. Prerequisite: IMED 1316, IMED 1341, ITSE 2313, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2330 - 2-D Animation II

Credits: 3 (2 lecture, 4 lab). Advanced study of technical aspects of animation. Emphasizes aesthetic design and completion of an animation project. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2335 - Portfolio Development for Animation

Credits: 3 (2 lecture, 4 lab). A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques.

ARTV 2341 - Advanced Digital Video

Credits: 3 (2 lecture, 4 lab). Advanced digital video techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: Must be placed into college-level reading, writing and math.

ARTV 2345 - 3-D Modeling and Rendering II

Credits: 3 (2 lecture, 4 lab). A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software, modeling techniques, camera settings, lighting, and surfacing to develop detailed environments. Prerequisite: ARTC 1302 and ARTV 1345; must be placed into college-level reading, writing and math.

ARTV 2351 - 3-D Animation II

Credits: 3 (2 lecture, 4 lab). Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques.

ARTV 2355 - Character Rigging and Animation

Credits: 3 (2 lecture, 4 lab). Advanced work in 3-D animation. Emphasis on character modeling, rigging and animation.

ASTR 1303 - Stars and Galaxies (Lecture)

Credits: 3 (3 lecture). An introduction to the present cosmological theories about the structure and evolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a corequisite).

ASTR 1304 - Solar System (lecture)

Credits: 3 (3 lecture). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a corequisite).

ASTR 1403 - Stars and Galaxies (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). An introduction to the present cosmological theories about the structure and evolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. Laboratory includes an introduction to observational techniques using telescopes, in-class projects/exercises on spectroscopy, stellar positions, solar heating, planetary motions, solar and astrophotography, star clusters, galaxies, and cosmology. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a corequisite).

ASTR 1404 - Solar System (lecture + lab)

Credits: 4 (3 lecture, 3 lab). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. Laboratory topics include planetary, lunar and solar observations with telescopes and/or the naked eye; measurements of the gravitational constant, gravitational acceleration and the speed of light; analysis of spectra and spacecraft images; and impact cratering simulations. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a corequisite).

AUMT 1305 - Introduction to Automotive Technology

Credits: 3 (2 lecture, 3 lab). An introduction to the automotive industry including automotive History, Civilization, safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automotive maintenance. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1306 - Automotive Engine Removal and Installation

Credits: 3 (2 lecture, 3 lab). Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1307 - Automotive Electrical Systems

Credits: 3 (2 lecture, 3 lab). An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1310 - Automotive Brake Systems

Credits: 3 (2 lecture, 3 lab). Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1316 - Automotive Suspension and Steering Systems

Credits: 3 (2 lecture, 3 lab). A study of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1319 - Automotive Engine Repair

Credits: 3 (2 lecture, 3 lab). Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1345 - Automotive Climate Control Systems

Credits: 3 (2 lecture, 3 lab). Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Prerequisite/Corequisite: AUMT 1307.

AUMT 1380 - Cooperative Education - Automobile / Automotive Mechanics Technology / Technician

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2310 - Automotive Service Consultant

Credits: 3 (2 lecture, 3 lab). Automotive service consulting skills and procedures. Includes vehicle identification, product knowledge, shop operations, warranty service contracts, communications, customer relations, internal relations, and sales skills. Emphasizes courtesy, professionalism, and communications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2313 - Automotive Drive Train and Axles

Credits: 3 (2 lecture, 3 lab). A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on the diagnosis and repair of transmissions/transaxles and drive lines. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2317 - Automotive Engine Performance Analysis I

Credits: 3 (2 lecture, 3 lab). Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2321 - Automotive Electrical Diagnosis and Repair

Credits: 3 (2 lecture, 3 lab). Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Prerequisite/Corequisite: AUMT 1307 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2325 - Automotive Automatic Transmission and Transaxle

Credits: 3 (2 lecture, 3 lab). A study of the operation, hydraulic principles, and related circuits of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and proper repair techniques. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2328 - Automotive Service

Credits: 3 (2 lecture, 4 lab). Mastery of automotive vehicle service and component systems repair. Emphasis on mastering current automotive competencies covered in related courses. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2334 - Automotive Engine Performance Analysis II

Credits: 3 (2 lecture, 3 lab). A study of diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

BARB 1307 - Introduction to Hair Design

Credits: 3. (1 lecture, 5 lab). Introduction to hair styling with emphasis on the fundamentals of haircutting and related skills.

BARB 1391 - Special Topics in Barber/Styling

Credits: 3 (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 1402 - Barber Styling I

Credits: 4 (2 lecture, 4 lab). Continued development in haircutting techniques and implementation of basic styling. Introduction to chemical reformation. Perform haircutting techniques including shear, razor, and clipper. Demonstrate a variety of styling techniques; demonstrate techniques used in chemical reformation. Practice safety and sanitation. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 1404 - Introduction to Barber Styling

Credits: 4 (2 lecture, 4 lab). Basic techniques for hair cutting. Introduction to the related skills of shampooing and treatments, and of trimming beards and mustaches. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 1442 - Barber Styling II

Credits: 4 (2 lecture, 4 lab). Continuation of Barber Styling I with emphasis on intermediate hands-on application of skills. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2402 - Barber Styling III

Credits: 4 (2 lecture, 4 lab). Continued skill development in haircutting and styling. Emphasizes on advanced techniques in chemical procedures. Introduction to hairpieces and facials. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2431 - Advanced Barber Styling I

Credits: 4 (2 lecture, 5 lab). Advanced skills in all areas of haircutting hairstyling and skincare. Introduction to hair coloring techniques. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2432 - Barber Law and Shop Management I

Credits: 4 (2 lecture, 4 lab). Introduction to Texas barber law and business management. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2441 - Advanced Barber Styling II

Credits: 4 (2 lecture, 4 lab). Continuation of Advanced Barber Styling I with further refinement of all skills and theory for licensure. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2444 - Barber Law and Shop Management II

Credits: 4 (2 lecture, 4 lab). Continuation of Barber Law and Shop Management I. Includes advanced business management and preparation for the State Board Examination for a barber license. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2470 - Preparation for the State Licensing Examination

Credits: 4 (2 lecture, 5 lab). In depth preparation of the theory and practical skills to pass the state licensing examination for a class A barber. Topics include: sanitation, disinfection, hair coloring, hair cutting, shampooing, conditioning, hair styling, chemical reformation services and shaving services. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BCIS 1305 - Business Computer Applications

Credits: 3 (3 lecture, 4 lab). Computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0312 or higher).

BIOL 1106 - Biology for Science Majors I (Lab)

Credits: 1 (3 lab). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core.

Prerequisite: Must be placed into college level reading and writing.

BIOL 1108 - Biology for Non-Science Majors I (Lab)

Credits: 1 (3 lab). Selected laboratory experiments related to topics in BIOL 1308 (Introductory Biology I) for non-majors. Prerequisite/Corequisite: BIOL 1308

BIOL 1109 - Biology for Non-Science Majors II

Credits: 1 (3 lab). Selected laboratory experiments related to topics in BIOL 1309 (Introductory Biology I) for non-majors. Prerequisite/Corequisite: BIOL 1309

BIOL 1306 - Biology for Science Majors I (Lecture)

Credits: 4 (3 lecture). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core.

Prerequisite: must be placed into college level reading and writing.

BIOL 1308 - Biology for Non-Science Majors I (Lecture)

Credits: 3 (3 lecture). Topics include basic chemistry, cell morphology and physiology, photosynthesis and respiration, cell division, and classical and molecular genetics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1309 - Biology for Non-Science Majors II (Lecture)

Credits: 3 (3 lecture). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1308, Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1322 - Nutrition & Diet Therapy

Credits: 3 (3 lecture). A course designed to teach the fundamentals of nutrition based on basic nutrition principles. Scientific standard recommendations of levels of nutrient intake for a healthy population are discussed. Sources and functions of carbohydrates, proteins, fats, vitamins and minerals are also studied. (cross listed with HECO 1322). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core.

Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 1407 - Biology for Science Majors II (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1406, Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 1413 – General Zoology (lecture +lab)

Credits: 4 (3 lecture, 3 lab). This lecture and lab course should combine all of the elements of BIOL 1313 (lecture) and BIOL 1113 (lab), including the learning outcomes listed for both courses.

BIOL 2101 - Anatomy & Physiology I (lab)

Credits: 1 (3 lab). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a corequisite.

BIOL 2102 - Anatomy & Physiology II (lab)

Credits: 1 (3 lab). Continuation of BIOL 2101 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a corequisite.

BIOL 2120 - Microbiology for Non-Science Majors (Lab)

Credits: 1 (3 lab). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 2301 - Anatomy & Physiology I (Lecture)

Credits: 3 (3 lecture). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a corequisite.

BIOL 2302 - Anatomy & Physiology II (Lecture)

Credits: 3 (3 lecture). Continuation of BIOL 2301 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a corequisite.

BIOL 2320 - Microbiology for Non-Science Majors (Lecture)

Credits: 3 (3 lecture). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 2406 - Environmental Biology (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Human interaction with and effect upon plant and animal communities. Conservation, pollution, energy, and other contemporary ecological problems. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 2416 - Genetics (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

BIOL 2421 - Microbiology for Science Majors (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Laboratory activities will reinforce principles of microbiology. Prerequisite: CHEM 1411 and BIOL 1406 and 1407 or BIOL 1411 and 1413.

BIOM 1309 - Applied Biomedical Equipment Technology

Credits: 3 (2 lecture, 3 lab). Introduction to biomedical instrumentation as related to anatomy and physiology. Detailed coverage of anatomical systems that use medical equipment for monitoring, diagnosis, and treatment. Prerequisite: CETT 1403, CETT 1425 or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2331 - Biomedical Clinical Instrumentation

Credits: 3 (2 lecture, 3 lab). A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory. Prerequisite: CETT 1403, CETT 1425, or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2389 - Internship - Biomedical Technology / Technician

Credits: 3 (18 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: 30 credit hours of CETT courses and Department Approval; must be placed into college-level reading, writing and math.

BMGT 1301 - Supervision

Credits: 3 (3 lecture). A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1313 - Principles of Purchasing

Credits: 3 (3 lecture). The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, negotiation techniques, and ethical issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1325 - Office Management

Credits: 3 (3 lecture). Systems, procedures, and practices related to organizing and planning office work, supervising employee performance, and exercising leadership skills.

BMGT 1327 - Principles of Management

Credits: 3 (3 lecture). Concepts, terminology, principles, theories, and issues in the field of management. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1341 - Business Ethics

Credits: 3 (3 lecture). Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1370 - Introduction to HR / PeopleSoft Applications

Credits: 3 (2 lecture, 3 lab). A hands-on overview of the major areas of human resources/PeopleSoft, as illustrated by PeopleSoft software applications. Some topics will cover accessing PeopleSoft, navigating the PeopleSoft interface, understanding PeopleSoft panels, using PeopleSoft panels, and creating queries.

BMGT 1371 - Intermediate HR / PeopleSoft Applications

Credits: 3 (2 lecture, 3 lab). A continuation of Introduction to Human Resources/PeopleSoft with intermediate PeopleSoft applications. Additional topics will include: understanding PeopleSoft processes, PeopleSoft HRMS (Human Resource Management Systems), PeopleSoft HRMS modules, and advanced query topics.

BMGT 2305 - Advanced Communications in Management

Credits: 3 (2 lecture, 2 lab). Putting it all together/PeopleSoft: group projects, team applications, and implementation of results

BMGT 2310 - Financial Management

Credits: 3 (2 lecture, 3 lab). Examination of accounting information to support managerial decision-making processes. Topics include managerial concepts and systems, various analyses for decision making, and planning and control.

BMGT 2331 - Principles of Quality Management

Credits: 3 (2 lecture, 2 lab). Includes planning and implementing quality programs in an organization and analyzing cost/benefit of quality. Also covers the impact of employee empowerment. Define the role of quality in production and service systems; explain concepts related to quality cost/benefit; and define the quality improvement process.

BNKG 1303 - Principles of Bank Operation

Credits: 3 (3 lecture). Overview of the fundamental banking functions and the role of regulation in the banking industry. Explanation of financial products and services to various markets. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1305 - Teller Training

Credits: 3 (3 lecture). Application of the functions related to negotiable instruments, cash control, handling money, and balancing. Explanation of compliance and regulation issues affecting bank tellers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1340 - Money and Financial Markets

Credits: 3 (3 lecture). Monetary policy and its related effects on financial intermediaries. Includes financial markets, regulatory functions, and structures. Addresses investment and funds management. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1343 - Law and Banking

Credits: 3 (3 lecture). Sources of law and banking regulation. Emphasis on the laws relating to contracts, negotiable instruments, secured transactions, and consumer credit. Prerequisite: BNKG 1303, Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1345 - Consumer Lending

Credits: 3 (3 lecture). A study of the different types of consumer loans. Identify the federal regulations and state laws pertaining to collection and serving of a consumer loan and relate consumer credit to the lending process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1349 - Commercial Lending

Credits: 3 (3 lecture). Overview of the commercial lending market and process with an emphasis on credit analysis, evaluation, federal regulation, and state laws related to business and industrial lending. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1351 - Selling Bank/Financial Products and Services

Credits: 3 (3 lecture). Characteristics and benefits of bank products and services. Emphasis on the personal selling process and quality customer service. Application of personal selling, cross-selling, and related product benefits to individual customer needs. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1356 - Analyzing Financial Statements

Credits: 3 (3 lecture). A study of the process of evaluating financial statements, cash flow, and ratio analysis of individuals and businesses with an emphasis on the relationship of comparative analysis and industry standards. Prerequisite: ACCT 2301; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1373 - Teller Training Lab

Credits: 3 (2 lecture, 2 lab). An alternate continuation of BNKG 1305 Teller Training, this course affords the student practical, hands-on experience in paying and receiving teller operations. Students develop skills such as cash handling, cash drawer setup, maintenance, security and daily balancing, processing of basic paying and receiving customer transactions, quoting funds availability, implementing security precautions, operating ten-key terminal, and using automated teller machines via daily practice in a lab setting. Prerequisite: BNKG 1305; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1380 - Cooperative Education - Banking and Financial Support Services

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2374 - Financial Business Administration

Credits: 3 (3 lecture). Course emphasizes the managerial responsibility of coordinating the many facets of a financial institution. The course covers administration in a regulatory environment, portfolio mix, and the various changes that are happening in this fast paced industry. Special attention is placed on investment areas in which customers are allowed to participate, which banks must have a working knowledge of but are not allowed to invest in. Prerequisite: BNKG 1340; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2380 - Cooperative Education - Banking and Financial Support Services

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2381 - Cooperative Education - Banking and Financial Support Services

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BUSG 1301 - Introduction to Business

Credits: 3 (3 lecture). Fundamental business principles including structure, functions, resources, and operational processes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1303 - Principles of Finance

Credits: 3 (3 lecture). Financial dynamics of a business. Includes monetary and credit theory, cash inventory, capital management, and consumer and government finance. Emphasizes the time value of money. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1307 - Entrepreneurship and Economic Development

Credits: 3 (3 lecture). Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1370 - Personal Financial Planning

Credits: 3 (3 lecture). An exploration of financial planning that emphasizes topics of personal interest but also have application to business financial planning topics. Topics include budgeting, bank accounts and account reconciliation, individual retirement accounts, loans, investments, debt management, real estate, insurance, wills, trusts, and taxes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1380 - Cooperative Education - Business / Commerce - General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

BUSG 2305 - Business Law / Contracts

Credits: 3 (3 lecture). Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2309 - Small Business Management/Entrepreneurship

Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 2370 - Legal Issues for Enterprise

Credits: 3 (3 lecture). Legal Aspects of Enterprise explores both the for-profit and not-for-profit legal requirements and provides applications activities to help the beginning business entrepreneur or social entrepreneur actually set up a new enterprise. Topics include: types of business structures, types of not-for-profit structures, legal forms and paperwork required to set up each type of structure, resources for assistance in setting up enterprises (such as legal clinics, lawyers who provide pro bono services for social enterprise); important considerations in retaining a lawyer, and legal pitfalls for the beginning entrepreneur to avoid. Prerequisites: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2380 - Cooperative Education - Business / Commerce - General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

BUSG 2382 - Cooperative Education - Entrepreneurship / Entrepreneurial Studies

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSI 1301 - Business Principles

Credits: 3 (3 lecture). Fundamental business principles including structure, functions, resources, and operational processes.

BUSI 1307 Personal Finance

Credits: 3 (3 lecture). Personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting or home ownership, and wills and trust plans. (Cross-listed as HECO 1307) NOTE: This course is not part of the business field of study and may not transfer toward a degree in business.

BUSI 2301 - Business Law I

Credits: 3 (3 lecture). Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency.

BUSI 2305 Business Statistics

Credits: 3 (3 lecture). Descriptive and inferential statistical techniques for business and economic decision-making. Topics include the collection, description, analysis, and summarization of data; probability; discrete and continuous random variables; the binomial and normal distributions; sampling distributions; tests of hypotheses; estimation and confidence intervals; linear regression; and correlation analysis. Statistical software is used to analyze data throughout the course. (BUSI 2305 is included in the Business Field of Study.)

CDEC 1313 - Curriculum Resources for Early Childhood Programs

Credits: 3 (2 lecture, 3 lab). A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1317 - Child Development Associate Training I

Credits: 3 (2 lecture, 2 lab). Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observational skills, and child growth and development overview. The four functional areas of study are creative, cognition, physical and communication. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1319 - Child Guidance

Credits: 3 (2 lecture, 2 lab). An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. Practical application through direct participation with children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1321 - The Infant and Toddler

Credits: 3 (2 lecture, 3 lab). A study of appropriate infant and toddler (birth to 3), including an overview of development, quality care giving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1323 - Observation and Assessment

Credits: 3 (3 lecture). A study of observation skills, assessment techniques, and documentation of children's development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1339 - Early Childhood Development 0 -3 Years

Credits: 3 (2 lecture, 3 lab). Principles of normal growth and development from conception through three years of age. Emphasizes physical, intellectual, and social/emotional development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1356 - Emergent Literacy for Early Childhood

Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1358 - Creative Arts for Early Childhood

Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children music, movement, visual arts and dramatic play through process-oriented experiences to support divergent thinking. Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1359 - Children with Special Needs

Credits: 3 (2 lecture, 2 lab). A survey of information regarding children with special needs including possible causes and characteristics of exceptionality, educational intervention, available resources, referral processes, the advocacy role and legislative issues. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1391 - Special Topics in Family Life and Relations Studies

Credits: 3 (3 lecture). A study of infants and toddlers and their families. Includes appropriate assessment strategies and communication techniques to be used with families. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1393 - Special Topics in Family Life and Relations Studies

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

CDEC 2307 - Math and Science for Early Childhood

Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2315 - Diverse Cultural/Multilingual Education

Credits: 3 (3 lecture, 1 lab). An overview of diverse cultural and multilingual education including familial relationships, community awareness, diversity, and the needs of each and every child.

CDEC 2326 - Administration of Programs for Children I

Credits: 3 (3 lecture). Application of management procedures for early child care education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Prerequisite: CDEC 1356, 1358 or 2307; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.

CDEC 2328 - Administration of Programs for Children II

Credits: 3 (3 lecture). An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personal management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Prerequisite: CDEC 2326; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.

CDEC 2341 - The School Age Child

Credits: 3 (2 lecture, 3 lab). A study of appropriate programs for the school age child (5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2380 - Cooperative Education - Early Childhood Provider/Assistant

Credits: 3 (1 lecture, 15 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. (Lab hours must be completed in a NAEYC accredited center). Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

CETT 1321 - Electronic Fabrication

Credits: 3 (2 lecture, 4 lab). Formerly CPMT 1407 A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math or Department Approval.

CETT 1357 - Linear Integrated Circuits

Credits: 3 (2 lecture, 4 lab). A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Applications include computation, measurements, instrumentation, and active filtering. Prerequisite: CETT 1429 or Department Approval; must be placed into college-level reading, writing and math.

CETT 1403 - DC Circuits

Credits: 4 (3 lecture, 3 lab). A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques. Prerequisite: Prerequisite/Corequisite: Math 1314; must be placed into college-level reading, writing and math or Department Approval.

CETT 1405 - AC Circuits

Credits: 4 (3 lecture, 3 lab). A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance; introduction to filters. Prerequisite: CETT 1403; Prerequisite/Corequisite: MATH 1316 or Departmental Approval. Must be placed into college-level reading, writing and math.

CETT 1409 - DC-AC Circuits

Credits: 4 (2 lecture, 4 lab). Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchhoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308. Departmental Approval

CETT 1425 - Digital Fundamentals

Credits: 4 (3 lecture, 3 lab). An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: CETT 1403 or Departmental Approval

CETT 1429 - Solid State Devices

Credits: 4 (3 lecture, 3 lab). A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, biasing-techniques, and thermal considerations of solid state devices. Prerequisite/Corequisite: CETT 1405; must be placed into college-level reading, writing and math or Departmental Approval

CETT 1431 - Programming for Discrete Electronic Devices

Credits: 4 (3 lecture, 3 lab). Introduction to a high level programming language. Includes structured programming and problem solving applicable to discrete electronic devices. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

CHEF 1205 - Sanitation and Safety

Credits: 2 (2 lecture). A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1301 - Basic Food Preparation

Credits: 3 (2 lecture, 4 lab). A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, materials handling, heat transfer, sanitation, safety, nutrition, and professionalism. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 2201 and 2231

CHEF 1302 - Principles of Healthy Cuisine

Credits: 3 (2 lecture, 4 lab). Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1310 - Garde Manger

Credits: 3 (2 lecture, 4 lab). A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1313 - Food Service Operation/Systems

Credits: 3 (3 lecture). An overview of the information needs of food and lodging properties. Emphasis on both front, back, and material management utilizing computer systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1314 - A La Carte Cooking

Credits: 3 (2 lecture, 4 lab). A course in a la carte or cooking to order concepts. Topics include menu and recipe interpretation and conversion, organization of a work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1471 - Introduction to Food Preparation for Hospitality

Credits: 2 (3 lecture, 3 lab). A study of the fundamental principles of food preparation to introduce hospitality students to basic culinary skills. Topics will include kitchen professionalism, proper station set up, basic knife skills, basic cooking techniques, proper handling and storage of various food items, and appropriate portions and plating techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2171 - Culinary Capstone Projects Laboratory

Credits: 1 (1 lecture, 2 lab). Open laboratory for reinforcement of specific culinary skills and selected culinary projects based on an individualized learning plan.

CHEF 2201 - Intermediate Food Preparation

Credits: 2 (1 lecture, 4 lab). Continuation of previous food preparation course. Topics include the concept of precooked food items, as well as scratch preparation. Covers full range of food preparation techniques. Prerequisite: CHEF 1301 and 2231; Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2231 - Advanced Food Preparation

Credits: 2 (1 lecture, 4 lab). Topics include the concept of pre-cooked food items and the preparation of canapés, hors d'oeuvres, and breakfast items. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 1301 and 2201

CHEF 2265 - Practicum (or Field Experience) - Culinary Arts/Chef Training

Credits: 2 (18 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: CHEF 1301, 1305, 2201 and 2231, Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2302 - Saucier

Credits: 3 (2 lecture, 4 lab). Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Prerequisite: CHEF 1301, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEM 1105 – Introductory Chemistry Laboratory I (lab)

Credits: 1 (3 lab). Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food / physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students. This course satisfies the Life and Physical Sciences or Component Area Option of HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1111 - General Chemistry I (Lab)

Credits: 1 (3 lab). Science and engineering majors' study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

CHEM 1305 - Introductory Chemistry I (lecture)

Credits: 3 (3 lecture). General introduction to fundamental principles of chemistry includes atomic structure, chemical formulas, molecules, reactions, and elementary thermodynamics. This course is intended to be preparatory to CHEM 1411 for science majors who have no prior knowledge of chemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1311 - General Chemistry I (Lecture)

Credits: 3 (3 lecture). Science and engineering majors' study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core.

Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

CHEM 1412 - General Chemistry II (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1411. Topics include solutions, chemical kinetics, equilibrium and equilibrium phenomena in aqueous solution, acids and bases, pH, thermodynamics, electrochemistry, nuclear chemistry, organic chemistry, and biochemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: CHEM 1411; must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

CHEM 2123 - Organic Chemistry I (lab)

Credits: 1 (3 lab). This laboratory-based course accompanies CHEM 2323, Organic Chemistry I. Laboratory activities will reinforce fundamental principles of organic chemistry, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Methods for the purification and identification of organic compounds will be examined. Corequisite: CHEM 2323 Organic Chemistry I (lecture)

CHEM 2125 - Organic Chemistry II (lab)

Credits: 1 (3 lab). This laboratory-based course accompanies CHEM 2325, Organic Chemistry II. Laboratory activities reinforce advanced principles of organic chemistry, including the structure, properties, and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. Corequisite: CHEM 2325 Organic Chemistry II

CHEM 2323 - Organic Chemistry I (lecture)

Credits: 3 (3 lecture). Fundamental principles of organic chemistry will be studied, including the structure, bonding, properties, and reactivity of organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS. Prerequisite: CHEM 1312/1112 or CHEM 1412 General Chemistry II (Lecture + Lab). Corequisite: CHEM 2123 Organic Chemistry I (lab)

CHEM 2325 - Organic Chemistry II (lecture)

Credits: 3 (3 lecture). Advanced principles of organic chemistry will be studied, including the structure, properties,

and reactivity of aliphatic and aromatic organic molecules; and properties and behavior of organic compounds and their derivatives. Emphasis is placed on organic synthesis and mechanisms. Includes study of covalent and ionic bonding, nomenclature, stereochemistry, structure and reactivity, reaction mechanisms, functional groups, and synthesis of simple molecules. THIS COURSE IS INTENDED FOR STUDENTS IN SCIENCE OR PRE-PROFESSIONAL PROGRAMS. Prerequisite: CHEM 2323/2123 or CHEM 2423 Organic Chemistry I (Lecture + Lab). Corequisite: CHEM 2125 Organic Chemistry II (lab)

CHEM 2423 - Organic Chemistry I (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Study of compounds of carbon. Topics include alkanes, alkenes, alkynes, alcohols, alkyl halides, stereochemistry, nucleophilic substitution, reaction mechanisms and synthesis. Study of the properties and behavior of hydrocarbon compounds and their derivatives. Designed for students in science or pre-professional programs. Prerequisite: CHEM 1412; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

CHEM 2425 - Organic Chemistry II (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 2423. Topics include aromaticity, benzene and EAS reactions, aldehydes, ketones, carboxyl acids and their derivatives, condensation reactions, amines, phenols, and infrared and NMR spectroscopy. Prerequisite: CHEM 2423; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

CHIN 1411 - Beginning Chinese I

Credits: 4 (3 lecture, 2 lab). Introduction to Chinese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

CHIN 1412 - Beginning Chinese II

Credits: 4 (3 lecture, 2 lab). Continuation of Chinese 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Chinese 1411 or satisfactory score on advanced placement examination or at least 2 years of high school Chinese within the last two years. Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

CHIN 2311 Intermediate Chinese I

Credits: 3 (3 lecture). Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

CHIN 2312 Intermediate Chinese II

Credits: 3 (3 lecture). Review and application of skills in listening comprehension, speaking, reading, and writing. Emphasizes conversation, vocabulary acquisition, reading, composition, and culture.

CHLT 1266 - Practicum (or Field Experience) - Community Health Services / Liaison/Counseling

Credits: 2 (14 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1291 - Special Topics in Community Health Liaison

Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1302 - Wellness and Health Promotion

Credits: 3 (3 lecture). Overview of wellness theory and its application throughout the life span. Focus is on attitude development, impact of cultural beliefs, and communication of wellness. Includes health behavior theories and approaches to behavior modification. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1342 - Community Health Field Methods

Credits: 3 (3 lecture). Preparation for field work with individuals, families, and groups emphasizing teaching and capacity-building skills. Topics include outreach methods, area canvassing, home visiting, group work, community events, and community organizing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1401 - Introduction to Community Health

Credits: 4 (4 lecture). Designed to provide a basic understanding of variables that affect health sectors in the community. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CJLE 1506 - Basic Peace Officer I

Credits: 5 (3 lecture, 8 lab). Introduction to fitness and wellness, History, Civilization, of policing, professionalism and ethics, United States Constitution and Bill of Rights, criminal justice system, Texas Penal Code, Texas Code of Criminal Procedure, civil process, and stress management. This course taken in conjunction with Basic Peace Officer II, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Training Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1512 - Basic Peace Officer II

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers field note taking, report writing, use of force? law and concepts, problem solving, multiculturalism, professional policing approaches, patrol procedures, victims of crime, family violence, MHMR, crowd management, HAZMAT, and criminal investigation. This course taken in conjunction with Basic Peace Officer I, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1518 - Basic Peace Officer III

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers laws pertaining to controlled substances, crowd management, personal property, and crime scene investigation. This course taken in conjunction with Basic Peace Officer I, II, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1524 - Basic Peace Officer IV

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, and III to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2484 - Cooperative Education - Criminal Justice / Police Science

Credits: 3 (1 lecture, 21 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: CRIJ 2328, Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

CMSW 1266 - Practicum-Clinical and Medical Social Worker

Credits: 2 (14 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1267 - Practicum-Clinical and Medical Social Worker

Credits: 2 (14 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1313 - Assessment and Service Delivery

Credits: 3 (3 lecture). A study of interviewing and assessment instruments and approaches for working with multicultural population. Emphasis on service delivery systems. Topics include awareness of commonly used assessments, ethical standards of practice, awareness of multicultural issues and competence in service delivery. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1353 - Family Intervention Strategies

Credits: 3 (3 lecture). Study of current family intervention strategies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CMSW 2266 - Practicum-Clinical and Medical Social Worker

Credits: 2 (14 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CNBT 1300 - Residential and Light Commercial Blueprint Reading

Credits: 3 (2 lecture, 2 lab). Introductory blueprint reading for residential and light commercial construction. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1301 - Introduction to the Construction Industry

Credits: 3 (3 lecture). Identify types of construction and organizational structures; explain purposes for various construction documents; describe the responsibilities of the construction office and field operations; identify environmental health and safety agency requirements; identify the various construction crafts and trades; and describe green and sustainable building practices and standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1302 - Mechanical, Plumbing, & Electrical Systems in Construction I

Credits: 3 (3 lecture). A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship. Prerequisite: CNBT 1201 or ELPT 1221 and TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1311 - Construction Methods and Materials I

Credits: 3 (3 lecture). Introduction to construction materials and methods and their applications. Prerequisite/Corequisite: CNBT 1201, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1316 - Construction Technology I

Credits: 3 (3 lecture). Introduction to site preparation, foundations, form work, safety, tools, and equipment. Prerequisite: TECM 1301 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: CNBT 1311.

CNBT 1318 - Construction Tools and Techniques

Credits: 3 (2 lecture, 2 lab). Comprehensive study of the selection and use of hand tools, portable and stationary power tools and related construction equipment. Emphasis on safety in the use of tools and equipment. Prerequisites/Corequisites: CNBT 1201, TECM 1301; Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1342 - Building Codes and Inspections

Credits: 3 (3 lecture). Building codes and standards applicable to building construction and inspection processes. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 1346 - Construction Estimating I

Credits: 3 (2 lecture, 2 lab). Fundamentals of estimating materials and labor costs in construction. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: CNBT 1311

CNBT 1359 - Project Scheduling

Credits: 3. (3 lecture). A study of conventional scheduling using critical-path-method, precedence networks, bar charts, monthly reports, and fast-track scheduling.

CNBT 1391 - Special Topics in Construction/Building Technology/Technician

Credits: 3 (3 lecture). An introduction to the process of career decision-making and the foundation skills required for a variety of trades in construction and manufacturing technologies including Air Conditioning and Refrigeration, Building Maintenance, Carpentry, Construction, Industrial Electricity, Machining and Manufacturing, and Welding. Topics include educational planning and vocational requirements including analyzing personal career interests, values, and aptitudes; surveying and researching career fields with related educational and training requisites; appraising career opportunities, prevailing wages, employment outlook, advantages, challenges and limitations. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 2335 - Computer Aided Construction Scheduling

Credits: 3 (2 lecture, 2 lab). Advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures. Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2337 - Construction Estimating II

Credits: 3 (2 lecture, 2 lab). Advanced estimating concepts using computer software programs for construction and crafts. Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2342 - Construction Management I

Credits: 3 (3 lecture). Management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making. Prerequisite: CNBT 1302, TECM 1301, CNBT 1300, CNBT 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

COMM 1336 - Video Production I

Credits: 3 (2 lecture, 2 lab). A concentrated course in the theory and application of principles, procedures, and techniques of television production. Uses lecture and laboratory setting with supervision by faculty.
Prerequisite: COMM 1335

COMM 1307 - Introduction to Mass Communication

Credits: 3 (3 lecture). Analyzes communication theory and mass media in 21st century society. Surveys History, Civilization, operation, and structure of the American communication system. Identifies major legal, ethical, and sociocultural issues, studies basic communication theory, and the interrelations between media and the individual, media and society, and media and the future. Examines career potential and job prospects in today's and tomorrow's electronic culture.
Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

COMM 1335 - Introduction to Electronic Media

Credits: 3 (3 lecture). A survey and analysis of History, Civilization, and principles of radio and television broadcasting and production, including programming for varied audience segments and sponsorship. Studies History, Civilization, technology, regulation, audience, and economics of radio, television, and related electronic media. Studies basic skills and theories of image and sound, equips student to communicate through audio/visual media. Includes public cable, closed-circuit television, production workshops, and individualized

instructional modules. Field trip and community media guest lectures included.

COMM 2300 - Media Literacy

Credits: 3 (3 lecture). Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of political, economic, and cultural factors on the operation of the media.

COMM 2302 - Principles of Journalism

Credits: 3 (3 lecture). Exploration of ethical and legal boundaries as well as issues and problems facing today's journalist. Prerequisite: Must be placed at college level reading and writing skills.

COMM 2303 - Audio / Radio Production

Credits: 3 (3 lecture). Concepts and techniques of sound production, including the coordinating and directing processes. Hands-on experience with equipment, sound sources, and direction of talent.

COMM 2305 - Editing and Layout

Credits: 3 (3 lecture). Trains students in basic copy editing for publication and in handling production copy from manuscript to finished publication, including photography choice, sizing, cropping and/or handling of various types of graphic illustrations. Covers publication layout (rough, finished), type choice, color, and black/white rendering.

COMM 2311 - Media Writing

Credits: 3 (2 lecture, 2 lab). Provides training in news gathering, news writing, and editing. Develops skills in headline writing, layout, and newspaper production with experience on student newspaper or area print publications. Field trips and careers are explored. This course satisfies the Creative Arts or Component Area Option of the HCC core.
Prerequisite: ENGL 1301

COMM 2315 - News Reporting

Credits: 3 (2 lecture, 2 lab). This course focuses on advanced news-gathering and writing skills. It concentrates on the three-part process of producing news stories: discovering the news, reporting the news, and writing the news in different formats. Continuation of COMM 2311. Prerequisite: ENGL 1301, COMM 2311

COMM 2324 - Practicum in Electronic Media

Credits: 3 (3 lecture). Lecture and laboratory instruction and participation.

COMM 2327 - Introduction to Advertising

Credits: 3 (3 lecture). Enables student to conceive ideas, tailor and lay out advertisements geared for TV commercials, radio, magazines, and newspapers. Assignments are based on goals, objectives, product/service fact sheets, and marketing considerations. Course integrates vital ingredients that enhance or impede advertising outcomes: product research, consumer behavior, semantics, social science knowledge, copy research and copywriting, visualization, media strategy, advertising agency knowledge, handling of client relations, and preparation of a portfolio. Field trip.

COMM 2330 - Introduction to Public Relations

Credits: 3 (3 lecture). Studies principles and practices of public relations. Provides hands-on techniques to influence positive public opinion within and outside of companies. Requires creation of feature and news articles, press releases, press kit, brochure, and brief work plan utilizing the four-step planning process for resolving PR problems. Trains students to write good copy, construct PR goals and objectives, conduct practical research to determine public attitudes and opinion, arrange and conduct press conferences, and develop positive media relationships. (Formerly COMM 2328).

COMM 2389 - Academic Cooperative

Credits: 3 (2 lecture, 4 lab). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication.

COSC 1420 – C Programming

Credits: 4 (3 lecture, 3 lab). Introduces the fundamental concepts of structured programming in the C language. Topics include data types; control structures; functions, structures, arrays, pointers, pointer arithmetic, unions, and files; the mechanics of running, testing, and debugging programs; introduction to programming; and introduction to the historical and social context of computing. Prerequisite: Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher, and have had high school computer literacy or equivalent.

COSC 1436 - Programming Fundamentals I

Credits: 4 (3 lecture, 3 lab). Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science. Core curriculum course. Prerequisite: Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher, and have had high school computer literacy or equivalent.

COSC 1437 - Programming Fundamentals II

Credits: 4 (3 lecture, 3 lab). This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. Prerequisite: COSC 1436 or ITSE 1402, and MATH 2412 and ENGL 1301.

COSC 2425 - Computer Organization

Credits: 4 (3 lecture, 3 lab). The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite: COSC 1436, MATH 1314 and ENGL 1301.

COSC 2436 - Programming Fundamentals III

Credits: 4 (3 lecture, 3 lab). Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: MATH 2413 and COSC 1437

CPMT 1303 - Introduction to Computer Technology

Credits: 3 (2 lecture, 4 lab). A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Department Approval.

CPMT 1411 - Introduction to Computer Maintenance

Credits: 4 (3 lecture, 3 lab). Introduction to the installation, configuration, and maintenance of a microcomputer system. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Department Approval.

CPMT 1449 - Computer Networking Technology

Credits: 4 (3 lecture, 3 lab). Networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Department Approval.

CRIJ 1301 - Introduction to Criminal Justice

Credits: 3 (3 lecture). History, Civilization, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 1306 - Court Systems & Practices

Credits: 3 (3 lecture). Study of the judiciary in the American criminal justice system and the adjudication processes and procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1307 - Crime in America

Credits: 3 (3 lecture). American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1310 - Fundamentals of Criminal Law

Credits: 3 (3 lecture). Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 2313 - Correctional Systems and Practices

Credits: 3 (3 lecture). Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 2314 - Criminal Investigation

Credits: 3 (3 lecture). Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 2323 - Legal Aspects of Law Enforcement

Credits: 3 (3 lecture). Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability. Designated as Criminal Justice Transfer Curriculum. Prerequisite/Corequisite: CRIJ 1301; must also be placed in college-level reading and writing or higher.

CRIJ 2328 - Police Systems and Practices

Credits: 3 (3 lecture). The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CSME 1308 - Principles of Eyelash Extension

Credits: 3 (2 lecture, 4 lab). This course provides the student with the practical skills necessary to safely and effectively apply eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1391 - Special Topics in Cosmetology/Cosmetologist, General

Credits: 3 (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1405 - Fundamentals of Cosmetology

Credits: 4 (2 lecture, 5 lab). A course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, and comb out. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1410

CSME 1409 - Application of Eyelash Extensions

Credits: 4 (2 lecture, 6 lab). This course provides the student with the skills necessary to perform client services using current techniques and business practices. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1410 - Introduction to Haircutting and Related Theory

Credits: 4 (2 lecture, 5 lab). Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1405, CSME 1453

CSME 1420 - Orientation to Facial Specialist

Credits: 3 (3 lecture, 4 lab). An overview of the skills and knowledge necessary for the field of facials and skin care. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1421, CSME 1447

CSME 1421 - Principles of Facial and Skin Care Technology I

Credits: 4 (2 lecture, 7 lab). An introduction to the principles of facial and skin care technology. Topics include anatomy, physiology, theory, and related skills of facial and skin care technology. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1420, CSME 1447

CSME 1447 - Principles of Skin Care / Facials and Related Theory

Credits: 4 (2 lecture, 7 lab). An in-depth coverage of the theory and practice of skin care, facials, and cosmetics. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1420, CSME 1421, CSME 1545

CSME 1451 - Artistry of Hair, Theory and Practice

Credits: 4 (2 lecture, 5 lab). Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2410.

CSME 1452 - Orientation to Hair Weaving & Braiding

Credits: 4 (2 lecture, 7 lab). An overview of the skills and knowledge necessary for the field of hair weaving and braiding. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1457

CSME 1453 - Chemical Reformation and Related Theory

Credits: 4 (2 lecture, 5 lab). Presentation of the theory and practice of chemical reformation, including terminology, application, and workplace competencies. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2401

CSME 1491 - Special Topics in Cosmetology/Cosmetologist, General

Credits: 4 (2 lecture, 4 lab). This course is designed to introduce the student to the principles of client relations dealing with diverse populations of clients and attitudes and behaviors pertinent to the occupation of cosmetology and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2343 CSME 2531

CSME 1507 - Orientation to Eyelash Extensions

Credits: 5 (4 lecture, 2 lab). An overview of the skills and knowledge necessary for the field of eyelash extensions. Topics include the basic knowledge of chemistry, eyelash growth cycles, proper selection and application, supplies and equipment of the industry, safety, sanitation, and laws and rules of the state licensing agency as they relate to eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1534 - Cosmetology Instructor I

Credits: 5 (3 lecture, 5 lab). The fundamentals of instruction of cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1535, CSME 2514

CSME 1535 - Orientation to the Instruction of Cosmetology

Credits: 5 (3 lecture, 5 lab). An overview of the skills and knowledge necessary for the instruction of cosmetology students. Prerequisite: A current Texas Cosmetology Operator License. Must have 3 years recent verifiable work experience. Must obtain department approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 2514

CSME 1545 - Principles of Facials and Skin Care Technology II

Credits: 5 (3 lecture, 6 lab). A continuation of the concepts and principles in skin care and other related technologies. Topics include advanced instruction in anatomy, physiology, theory, and related skills of facial and Skin care technology. Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2531, CSME 1491, CSME 1447

CSME 1557 - Applications of Hair Weaving & Braiding

Credits: 4 (2 lecture, 7 lab). Emphasis on the application of hair weaving and braiding techniques and preparation for the Texas Department of Licensing and Regulation (TDLR) examination. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1452

CSME 2204 - Introduction to the Theory and Chemistry of Hair Color

Credits: 3 (2 lecture). The introduction of basic theory and chemistry of hair color. Topics include the Law of Color, terminology and chemical composition of hair color products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 2337 - Advanced Cosmetology Techniques

Credits: 3 (1 lecture, 5 lab). Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2439

CSME 2343 - Salon Development

Credits: 3 (2 lecture, 2 lab). Exploration of salon development. Topics include professional ethics and goals, salon operation, and record keeping. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491

CSME 2410 - Advanced Haircutting and Related Theory

Credits: 4 (2 lecture, 5 lab). Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1451

CSME 2439 - Advanced Hair Design

Credits: 4 (2 lecture, 5 lab). Advanced concepts in the theory and practice of hair design Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2337

CSME 2501 - The Principles of Hair Coloring and Related Theory

Credits: 4 (3 lecture, 4 lab). Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1453

CSME 2514 - Cosmetology Instructor II

Credits: 5 (3 lecture, 5 lab). A continuation of the fundamentals of instructing cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 1535, CSME 2515

CSME 2531 - Principles of Facial / Skin Care Technology III

Credits: 5 (3 lecture, 6 lab). Advanced concepts and principles of skin care and other related technologies. Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491, CSME 1545

CSME 2541 - Preparation for the State Licensing Examination

Credits: 5 (3 lecture, 4 lab). Preparation for the state licensing examination. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME1451.

CSME 2544 - Cosmetology Instructor IV

Credits: 5 (3 lecture, 5 lab). Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2515, CSME 2545.

CSME 2545 - Instructional Theory and Clinic Operation

Credits: 5 (3 lecture, 5 lab). An overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2515, CSME 2544

CSME 2549 - Cosmetology Instructor III

Credits: 5 (3 lecture, 5 lab). Presentation of lesson plan assignments and evaluation techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2544, CSME 2545, CSME 2514

CTMT 2336 - Computer Tomography Equipment and Methodology

Credits: 3 (3 lecture). Skill development in the operation of computed tomographic equipment, focusing on routine protocols, image quality, quality assurance and radiation protection. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340

CTMT 2360 - Clinical-Radiologic Technology / Science-Radiographer

Credits: 3 (12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340, CTMT 2336, CTMT 2461

**CTMT 2361 - Clinical-Radiologic Technology /
Science-Radiographer**

Credits: 3 (12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math.

Corequisite: RADR 2340, CTMT 2336, CTMT 2460

**DAAC 1264 - Practicum (or Field Experience) -
Substance Abuse/Addiction Counseling**

Credits: 2 (14 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

DAAC 1304 - Pharmacology of Addiction

Credits: 3 (3 lecture). Describes the psychological, physiological, and sociological effects of mood-altering substances and behaviors. Emphasizes pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1305 - Co-Occurring Disorders

Credits: 3 (3 lecture). Provides students with an understanding of co-occurring psychiatric and substance abuse disorders and their impact on the individual, family, and community. Includes an integrated approach to address the issues accompanying the illness. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 1311 - Counseling Theories

Credits: 3 (3 lecture). An examination of the major theories and current treatment modalities used in the field of counseling. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

**DAAC 1319 - Substance-Related and Addictive
Disorders**

Credits: 3 (3 lecture). An overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor's code of ethics. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1417 - Basic Counseling Skills

Credits: 4 (2 lecture, 8 lab). Presents the basic counseling skills necessary to develop an effective helping relationship with clients. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

**DAAC 2267 - Practicum (or Field Experience) -
Substance Abuse / Addiction Counseling**

Credits: 2 (19 external lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 2306 - Substance Abuse Prevention I

Credits: 3 (3 lecture, 1 lab). Focuses on aspects of substance abuse prevention from a public health model. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2353 - Substance Abuse Prevention II

Credits: 3 (3 lecture, 1 lab). Focuses on the incorporation of research and evaluation methods into advanced program designs and outcomes, and research and application of ethics as applied to substance abuse prevention. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2354 - Dynamics of Group Counseling

Credits: 3 (3 lecture). Exploration of group counseling skills, techniques, and stages of group development. Prerequisite: DAAC 1417; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DANC 1110 - Tap Dance

Credits: 1 (3 lab). Instruction in the fundamental techniques and concepts associated with Tap dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1112 - Dance Practicum

Credits: 1 (3 lab). Practicum in dance related topics with emphasis on practical skills necessary for the field. May be repeated for credit once. Prerequisite: Department Approval required.

DANC 1128 - Ballroom and Social Dance

Credits: 1 (2 lab). Introductory instruction in the fundamental techniques and concepts associated with Ballroom and Social Dance. May be repeated for credit once.

DANC 1151 - Freshman Dance Performance

Credits: 1 (4 lab). Instruction in dance performance through experiential projects at the freshman level. May be repeated for credit once. Prerequisites: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1201 - Dance Composition - Improvisation

Credits: 2 (2 lecture). This introductory course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1241 - Beginning Ballet

Credits: 2 (1 lecture, 3 lab). Instruction in the fundamental techniques and concepts associated with ballet. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1245 - Beginning Modern Dance

Credits: 2 (1 lecture, 3 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1247 - Beginning Jazz Dance

Credits: 3 (2 lecture, 2 lab). Instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1301 - Dance Composition - Choreography

Credits: 3 (3 lecture). This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1305 - World Dance

Credits: 3 (2 lecture, 2 lab). A survey of dances from different cultures, their histories, and their influences on contemporary dance and society. Cultural origins, significance, motivations and techniques will be explored experientially. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 2151 - Sophomore Dance Performance

Credits: 1(1 lecture, 3 lab). Instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 2241 - Intermediate Ballet

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with ballet. May be repeated for credit once.

DANC 2245 - Intermediate Modern Dance

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance.

DANC 2247 - Intermediate Jazz Dance

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: DANC 1348 Jazz II or instructor's approval.

DANC 2303 - Dance Appreciation

Credits: 3 (3 lecture). A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

DEMR 1301 - Shop Safety and Procedures

Credits: 3 (2 lecture, 3 lab). A study of shop safety, rules, basic shop tools, and test equipment. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1305 - Basic Electrical Systems

Credits: 3 (2 lecture, 3 lab). Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1310 - Diesel Engine Testing and Repair I

Credits: 3 (2 lecture, 3 lab). An introduction to testing and repairing diesel engines including related systems specialized tools. Prerequisite/Corequisite: DEMR 1313; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1316 - Basic Hydraulics

Credits: 3 (1 lecture, 3 lab). Fundamentals of hydraulics including components and related systems. Prerequisite/Corequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1317 - Basic Brake Systems

Credits: 3 (2 lecture, 3 lab). Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair

Credits: 3 (2 lecture, 3 lab). Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1329 - Preventative Maintenance

Credits: 3 (2 lecture, 3 lab). An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1330 - Steering and Suspension I

Credits: 3 (2 lecture, 3 lab). A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1342 - Power Train Applications I

Credits: 3 (2 lecture, 3 lab). In-depth coverage of the mechanics and theory of power trains. Emphasis on disassembly, inspection, and repair of power train components. Prerequisite/Corequisite: DEMR 1349; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1381 - Cooperative Education - Diesel Mechanics Technology/Technician

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite/Corequisite: DEMR 2312 and Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2312 - Diesel Engine Testing and Repair II

Credits: 3 (2 lecture, 3 lab). Coverage of testing and repairing diesel engines including related systems and specialized tools. Prerequisite/Corequisite: DEMR 1342; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2332 - Electronic Controls

Credits: 3 (2 lecture, 3 lab). Advanced skills in diagnostic and programming techniques of electronic control systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2439 - Advanced Electrical Systems

Credits: 4 (3 lecture, 2 lab). A continuation of basic electrical systems to include lighting, computer controls and accessories. Emphasis on diagnosis, testing, and repair using the various diagnostic tools and procedures for current electronic systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1302 - Introduction to Technical Animation and Rendering

Credits: 3 (2 lecture, 4 lab). Basic terminology and concepts associated with the development of computer modules used in technical computer animation. Topics include basic animation principles, model creation, light sources, camera positioning, rendering, importing and modification of external files. Prerequisite: DFTG 2319; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1305 - Technical Drafting

Credits: 3 (2 lecture, 4 lab). Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1309 - Basic Computer-Aided Drafting

Credits: 3 (2 lecture, 4 lab). An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems and plot/print to scale. Prerequisite/Corequisite: DFTG 1305 or Departmental Approval; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1310 - Specialized Basic Computer Aided Drafting (CAD)

Credits: 3 (2 lecture, 4 lab). A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings.

Prerequisite: DFTG 1305 and DFTG 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1317 - Architectural Drafting - Residential

Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1329 - Electro - Mechanical Drafting

Credits: 3 (2 lecture, 4 lab). A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches. Emphasis on drawing of electronics enclosures, interior hardware, exterior enclosure, detailed and assembly drawings with a parts list, and flat-pattern layouts.

Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1330 Civil Drafting I

Credits: 3 (2 lecture, 4 lab). Preparation of civil drawings including drafting methods and principles used in civil engineering.

DFTG 1333 - Mechanical Drafting

Credits: 3 (2 lecture, 4 lab). Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings, including bill of materials. Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1358 - Electrical / Electronic Drafting

Credits: 3 (2 lecture, 4 lab). Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams.

Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1372 – Smart Print 3D Drafting

Credits: 3 (2 lecture, 4 lab). Use process, power and marine design software for 3D modeling design. Learn to define a workspace that opens a new 3D intelligent design world. Manipulate designed equipment, specialty items, piping and refining where required.

DFTG 1376 - Revit Residential

Credits: 3 (2 lecture, 4 lab). Use architectural design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 1305, DFTG 1309, and DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD

Credits: 3 (2 lecture, 4 lab). The total method of building construction, focused on energy conservation, green and sustainable building, improved construction practices, accessibility, and whole-building design techniques. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2319, DFTG 1317.

DFTG 1393 - Special Topics in Civil Drafting and Civil Engineering; Civil 3D

Credits: 3 (2 lecture, 4 lab). Use Civil 3D software to enhance alignment layout of civil engineering projects. Use tools that enable easier sharing of drafting and design standards across organizations. Prerequisite: DFTG 1330. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1394 - Special Topics in Electrical/Electronic Drafting and Electrical/Electronic CAD / CADD

Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD / CADD Auto Plant Isometrics

Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2323 and DFTG 2371. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2300 - Intermediate Architectural Drafting - Residential

Credits: Credit 3 (2 lecture, 4 lab). Continued application of principles and practices used in residential construction. Prerequisite: DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2302 - Machine Drafting

Credits: 3 (2 lecture, 4 lab). Production of detail and assembly drawings of machine, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings. Prerequisite: DFTG 1333; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2305 - Printed Circuit Board Design

Credits: 3 (2 lecture, 4 lab). Course includes single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to layout printed circuit board and manufacturing documentation. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2306 - Machine Design

Credits: 3 (2 lecture, 4 lab). Theory and practice of design. Projects in problem solving, including press fit, bolted and welded joints, and transmission components. Prerequisite: DFTG 2302. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2307 - Electrical Drafting

Credits: 3 (2 lecture, 4 lab). A study of area lighting, control systems and power layouts, electrical and safety codes, load factors and distribution requirements.

DFTG 2308 - Instrumentation Drafting

Credits: 3 (2 lecture, 4 lab). Principles of instrumentation as applicable to industrial applications; fundamentals of measurements and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout, and drafting practices. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2317 - Descriptive Geometry

Credits: 3 (2 lecture, 4 lab). Graphical solutions to problems involving points, lines, and planes in space. Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2319 - Intermediate Computer-Aided Drafting

Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3-dimensional drawings, interfacing 2-D and 3-D environments and extracting data. Prerequisite: DFTG 1309 and DFTG 1305. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2321 - Topographical Drafting

Credits: 3 (2 lecture, 4 lab). Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses.

DFTG 2323 - Pipe Drafting

Credits: 3 (2 lecture, 4 lab). A study of pipe fittings, symbols, specifications, and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Prerequisite: DFTG 1305 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2328 - Architectural Drafting - Commercial

Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Prerequisite: DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2331 - Advanced Technologies in Architectural Design and Drafting

Credits: 3 (2 lecture, 4 lab). Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Prerequisite: DFTG 1376. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2332 - Advanced Computer-Aided Drafting

Credits: 3 (2 lecture, 4 lab). Advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as three-dimensional solids modeling and linking graphic entities to external non-graphic data. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2335 - Advanced Technologies in Mechanical Design and Drafting

Credits: 3 (2 lecture, 4 lab). Use parametric based mechanical design software for mechanical assembly design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2338 - Final Project - Advanced Drafting

Credits: 3 (2 lecture, 4 lab). A drafting course in which students participate in a comprehensive project from conception to conclusion. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1305 and DFTG 1309. Must be at the last semesters before obtaining Drafting Certificate or AAS Degree.

DFTG 2340 - Solid Modeling/Design

Credits: 3 (2 lecture, 4 lab). A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2345 - Advanced Pipe Drafting

Credits: 3 (2 lecture, 4 lab). A continuation of pipe drafting concepts building on the basic principles acquired in pipe drafting. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2358 - Advanced Machine Design

Credits: 3 (2 lecture, 4 lab). Design process skills for the production of complete design package, which includes jig and fixture design, extrusion dies, and injection mold design. Prerequisite: DFTG 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2370 - Intermediate CAD (MicroStation)

Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in the basic computer-aided drafting (MicroStation), emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of three (3) dimensional drawings, interfacing 2D and 3D environments and extracting data. Prerequisite: DFTG 1310. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2371 - Advanced Technologies in Process Plant Design - (Auto Plant)

Credits: 3 (2 lecture, 4 lab). Use process plant based mechanical design software for specific applications in industrial design and drafting. Prerequisite: DFTG 2323, DFTG 2319 or 2370; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2372 - Piping Plans and Process Equipment

Credits: 3 (2 lecture, 4 lab). A continuation of process pipe design concepts, building on the principles acquired in Process Plant Layout. Prerequisite: DFTG 2319 or DFTG 2370 or Departmental Approval. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2373 - Piping Design Management System (PDMS)

Credits: 3 (2 lecture, 4 lab). Uses process plant management systems based Piping design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2374 - Civil 3-D

Credits: 3 (2 lecture, 4 lab). DFTG 2374 Civil 3D covers the essentials of Autodesk Civil 3D. Students learn how to work with point data in Autodesk Civil 3D, how to create and analyze a surface, how to develop a site, how to model roads, corridors, and pipe networks, how to work with survey data, and how to import and export data. Hands-on exercises throughout the course explore how to create 2D and 3D drawings. Prerequisite: DFTG 1305, DFTG 1309, DFTG 2330; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2375 - Introduction to GIS

Credits: 3 (2 lecture, 4 lab). DFTG 2375 Introduction to GIS is designed to teach students: general application of GIS software, acquire qualitative methods skills in data and document gathering, analyzing information, and presenting results. Prerequisite: DFTG 1305 and DFTG 1309. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2380 - Cooperative Education - Drafting and Design Technology / Technician, General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Completed at least 12 semester hours in Drafting Certificate Program and Departmental Approval.

DFTG 2381 - Cooperative Education - Drafting and Design Technology / Technician, General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Completed at least 32 semester hours in Drafting Certificate Program and Departmental Approval.

DHYG 1207 - General & Dental Nutrition

Credits: 2 (2 lecture). General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health. Prerequisite: BIOL 2301, 2101, CHEM 1305, ENGL 1301, SOCI 1301; Completion of the prerequisites and first semester of the dental hygiene curriculum with 75% or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1211 - Periodontology

Credits: 2 (2 lecture). Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1215 - Community Dentistry

Credits: 2 (1 lecture, 3 lab). The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings. Prerequisite: Completion of first year of dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1227 - Preventive Dental Hygiene Care

Credits: 2 (2 lecture, 1 lab). The role of the dental hygienist as a therapeutic oral health care provider with emphasis on concepts of disease management, health promotion, communication, and behavior modification. Prerequisite: BIOL 2301, 2101; CHEM 1305, ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1235 - Pharmacology for The Dental Hygienist

Credits: 2 (2 lecture). Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1260 - Clinical - Dental Hygiene / Hygienist

Credits: 2 (12 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first semester dental hygiene curriculum required.

DHYG 1261 - Clinical - Dental Hygiene / Hygienist

Credits: 2 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: DHYG 1260.

DHYG 1301 - Orofacial Anatomy, Histology & Embryology

Credits: 3 (3 lecture, 1 lab). The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1304 - Dental Radiology

Credits: 3 (2 lecture, 4 lab). Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1319 - Dental Materials

Credits: 3 (2 lecture, 2 lab). Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Prerequisite: Completion of first/second semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1331 - Preclinical Dental Hygiene

Credits: 3 (1 lecture, 7 lab). Foundational knowledge for performing clinical skills on patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1339 - General and Oral Pathology

Credits: 3 (3 lecture). Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisite: Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2153 - Dental Hygiene Practice

Credits: 1 (1 lecture, 1 lab). Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Practice settings for the dental hygienist, office operations, and preparation for employment. Explain the Dental Practice Act governing the dental and dental hygiene profession; evaluate ethical and moral issues affecting dental hygiene practice; describe traditional and non-traditional dental hygiene practice settings; and prepare for employment. Prerequisite: Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2201 - Dental Hygiene Care I

Credits: 2 (2 lecture, 1 lab). Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques. Prerequisite: Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2231 - Dental Hygiene Care II

Credits: 2 (2 lecture). A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2260 - Clinical - Dental Hygiene/Hygienist

Credits: 2 (12 lab). Intermediate Level: A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: DHYG 1260, DHYG 1261.

DHYG 2261 - Clinical - Dental Hygiene/ Hygienist

Credits: 2 (12 lab). Advanced Level: A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: DHYG 1260, DHYG 1261, DHYG 2260.

DMSO 1202 - Basic Ultrasound Physics

Credits: 2 (1 lecture, 3 lab). Basic acoustical physics and acoustical waves in human tissue. Emphasis is on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission and resolution of sound beams. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1210 - Introduction to Sonography

Credits: 2 (1 lecture, 2 lab). An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and History, Civilization, of the profession. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1342 - Intermediate Ultrasound Physics

Credits: 3 (3 lecture, 1 lab). Continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis. Prerequisite: DMSO 1302; must be placed into college-level reading, writing and math.

DMSO 1355 - Sonographic Pathophysiology

Credits: 3 (2 lecture; 2 lab). Pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1441 - Abdominopelvic Sonography

Credits: 4 (3 lecture, 4 lab). Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1451 - Sonographic Sectional Anatomy

Credits: 4 (3 lecture, 2 lab). Sectional anatomy of the male and female body. Includes anatomical relationships of organs, vascular structures, and body planes and quadrants. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 2130 - Advanced Ultrasound and Review

Credits: 1 (3 lab). Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 2243 - Advanced Ultrasound Physics

Credits: 2 (2 lecture). Theory and application of ultrasound principles. Includes advances in ultrasound technology. Prerequisite: DMSO 1302, DMSO 1342 and DMSO 2351; must be placed into college-level reading, writing and math.

DMSO 2253 - Sonography of Superficial Structures

Credits: 2 (1 lecture, 2 lab). Detailed study of normal and pathological superficial structures as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 2405; must be placed into college-level reading, writing and math.

DMSO 2266 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician

Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1266; must be placed into college-level reading, writing and math.

DMSO 2342 - Sonography of High Risk Obstetrics

Credits: 3 (3 lecture). Maternal disease and fetal abnormalities. Includes scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Prerequisite: DMSO 2405; must be placed into college-level reading, writing and math.

DMSO 2351 - Doppler Physics

Credits: 3 (3 lecture). Doppler and hemodynamic principles relating to arterial and venous imaging and testing. Prerequisite: DMSO 1342; must be placed into college-level reading, writing and math.

DMSO 2405 - Sonography of Obstetrics / Gynecology

Credits: 4 (4 lecture, 1 lab). Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 1355, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2441 - Sonography of Abdominopelvic Pathology

Credits: 4 (3 lecture, 2 lab). Pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Emphasizes end cavitory sonographic anatomy and procedures including pregnancy. Prerequisite: DMSO 1355, DMSO 1441, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2467 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician

Credits: 4 (32 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All DMSO courses; must be placed into college-level reading, writing and math. Corequisites: DMSO 2243, DMSO 2245

DNTA 1102 - Communication and Behavior in the Dental Office

Credits: 1 (1 lecture). The study of human interaction and communication in the dental office. Prerequisite: DNTA 1167; ENGL 1301, MATH 0306

DNTA 1167 - Practicum (or Field Experience) - Dental Assisting/Assistant

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1305, DNTA 1245, DNTA 1401, DNTA 1411, DNTA 1415, ENGL 1301, MATH 0306

DNTA 1245 - Preventive Dentistry

Credits: 2 (2 lecture, 1 lab). The study of nutrition and preventable dental disease and community dental health. Prerequisite: Program Admittance, ENGL 1301, MATH 0306

DNTA 1305 - Dental Radiology

Credits: 3 (2 lecture, 3 lab). Introduction to radiation physics, radiation protection, and the operation of radiographic equipment. Instruction in exposure, processing and mounting of dental radiographs, and study of federal and state safety and standard practices. Prerequisite: Program Admittance, ENGL 1301

DNTA 1349 - Dental Radiology in the Clinic

Credits: 3 (2 lecture, 3 lab). The practical application of exposing, processing, and mounting diagnostically acceptable radiographs obtained by utilizing various radiographic techniques. Prerequisite: DNTA 1305, ENGL 1301

DNTA 1351 - Dental Office Management

Credits: 3 (3 lecture). Use computers and or manual systems to process dental information and interpret and practice learned dental office management skills. Prerequisite: DNTA 1415, ENGL 1301

DNTA 1401 - Dental Materials

Credits: 4 (3 lecture, 2 lab). Composition, properties, procedures and safety standards related to dental materials. Prerequisite: Program Admittance, ENGL 1301

DNTA 1411 - Dental Science

Credits: 4 (4 lecture). A fundamental study of anatomical systems with emphasis placed on head and neck anatomy. Topics include embryology of the teeth along with basic dental terminology. Prerequisite: Program Admittance, ENGL 1301

DNTA 1415 - Chairside Assisting

Credits: 4 (3 lecture, 3 lab). A study of pre-clinical chairside assisting procedures, instrumentation, OSHA and other regulatory agencies standards. Prerequisite: Program Admittance, ENGL 1301

DNTA 1447 - Advanced Dental Science

Credits: 4 (4 lecture). An advanced study of anatomical systems, pharmacology, oral pathology, and developmental abnormalities. Prerequisite: DNTA 1411, ENGL 1301

DNTA 1453 - Dental Assisting Applications

Credits: 4 (3 lecture, 3 lab). Course Description should be: An extended study of dental assisting techniques with emphasis on four-handed dentistry and utilization of armamentarium for general practice and specialty procedures. Prerequisite: DNTA 1401, DNTA 1415, ENGL 1301

DNTA 2130 - Seminar for the Dental Assistant

Credits: 1 (1 lecture). Analysis of case studies during the clinical phase of practicum/clinical. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453, ENGL 1301

DNTA 2267 - Practicum (or Field Experience) -Dental Assisting/Assistant

Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453; ENGL 1301

DRAM 1120 - Theater Practicum I

Credits: 1 (4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Required of majors.

Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1121 - Theater Practicum II

Credits: 1 (0 lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Required of majors.

Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1310 - Theater Appreciation

Credits: 3 (3 lecture). Basic principles of theatre, including the various styles of theatrical production and present practices in the theatre. Required of majors. Open to non-majors. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1322 - Stage Movement

Credits: 3 (2 lecture, 2 lab). A course to develop the actor's expressive use of the body through pantomime, tumbling, acrobatics, fencing, and stage fighting. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1330 - Stagecraft I

Credits: 3 (2 lecture, 2 lab). Stagecraft, stage properties, and makeup. Practical experience on technical crews is provided. Laboratory hours may be arranged. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1341 – Stage Makeup

Credits: 3 (3 lecture). Principles of straight and character makeup. Student must purchase basic makeup kit. Theatre attendance and/or assistance in college productions required. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1342 - Costume Technology

Credits: 3. (2 lecture, 2 lab) Introduction to the process and application of the fundamental skills of costume production, modification, and maintenance. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1351 - Acting I

Credits: 3 (2 lecture, 2 lab). An introduction to the problems of internal acting technique, creation of visual images, reaction to stimulus, and creation of inner life of character. Scene work: finding beats, developing subtext, and playing intentions. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1352 - Acting II

Credits: 3 (2 lecture, 2 lab). An introduction to the problems of external acting technique with emphasis on characterization using animal, color and inanimate object improvisational techniques. Scene work focuses on comedic technique including analyzing incongruities, playing opposites, and timing. Theatre attendance and/or assistance in college productions required. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. DRAM 1351

DRAM 2120 - Theater Practicum III

Credits: 1 (4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Required of majors.

Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2121 - Theater Practicum IV

Credits: 1. (4 lab) Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Required of majors.

Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2331 - Stagecraft II

Credits: 3. (2 lecture, 2 lab) Continued study and application of the methods and components of theatrical production that may include one or more of the following: theater facilities, scenery construction and painting, properties, lighting, costume, makeup, sound and theatrical management. Prerequisite: Must be placed into GUST 0342(or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2335 Theater Design

Credits: 3 (3 lecture). Survey of principles and practices of theater design and its elements. The fundamentals of art and their application to major areas of theatrical design. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2355 Script Analysis

Credits: 3 (3 Lecture). Examination of foundational skills for understanding the structure and content of play scripts 111 for interpretation and conceptualization in theater productions by directors, designers, actors, and technicians. Introduces students to significant plays in the history of dramatic literature in the playwright's social and cultural context. Required of majors. Open to non-majors.

Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2361 - History of the Theater I

Credits: 3 (3 lecture). Survey of the theatre from its beginning. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2366 - Film Appreciation

Credits: 3 (3 lecture). Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and sociological effect of film as an art. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

ECON 1301 - Introduction to Economics

Credits: 3 (3 lecture). A survey of microeconomic and macroeconomic principles for non-business majors. Microeconomic topics will include supply and demand, consumer behavior, price and output decisions by firms under various market structures, factor markets, market failures, international trade, and exchange rates. Macroeconomic topics will include national income, unemployment, inflation, business cycles, aggregate supply and demand, monetary and fiscal policy, and economic growth. May not be substituted for ECON 2301 or ECON 2302. Prerequisites: Must be placed in college level reading / writing: INRW 0300, 0360/0370 or higher, or ENGL 0310, 0346 or higher or ESOL 0360/0370.

ECON 2301 - Principles of Macroeconomics

Credits: 3 (3 lecture). An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Prerequisites: Must be placed in college level reading / writing: INRW 0300, 0360/0370 or higher, or ENGL 0310, 0346 or higher or ESOL 0360/0370. Must be placed in college level math (MATH 0314 or higher).

ECON 2302 - Principles of Microeconomics

Credits: 3 (3 lecture). Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Prerequisites: Must be placed in college level reading / writing: INRW 0300, 0360/0370 or higher, or ENGL 0310, 0346 or higher or ESOL 0360/0370. Must be placed in college level math (MATH 0314 or higher).

EDUC 1300 - Learning Framework

Credits: 3 (3 lecture). EDUC 1300 is a study of the research and theory in the psychology of learning, cognition, and motivation; factors that impact learning; and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. In addition, the course focuses on numerous college, career, and life management topics necessary for students to make the most of their college investment. Core curriculum course. Prerequisite: Must be placed into GUST 0341 (or higher).

All students must have taken the TSIA assessment. No specific scores are required.

EDUC 1301 - Introduction to the Teaching Profession

Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms. Prerequisite: Must be placed into college-level reading and college-level writing.

EDUC 2301 - Introduction to Special Populations

Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations. Prerequisite: EDUC 1301, Must be placed into college-level reading and college-level writing.

ELMT 1301 - Programmable Logic Controllers

Credits: 3 (2 lecture, 3 lab). An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisite/Corequisite: ELPT 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELMT 1302 - Solar Photovoltaic Systems

Credits: 3 (2 lecture, 4 lab). Design and installation of solar photovoltaic systems and their applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELMT 1311 - Solar Fundamentals

Credits: 3 (2 lecture, 3 lab). Study of heat transference, motors, pumps and other mechanical devices; solid state switches; photovoltaic plates and energy conversion; thermal dynamics; and solar energy.

ELPT 1311 - Basic Electrical Theory

Credits: 3 (2 lecture, 3 lab). Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1315 - Electrical Calculations I

Credits: 3 (2 lecture, 2 lab). Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1321 - Introduction to Electrical Safety and Tools

Credits: 3 (2 lecture, 2 lab). A comprehensive overview of safety rules and regulations and the selection, inspection, use, and maintenance of common tools for electricians. Emphasis is given to safety rules and accepted safety practices in the workplace, the use of hand tools, power tools and the proper selection, function and operation of common electrical measuring instruments.

Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1325 - National Electrical Code I

Credits: 3 (3 lecture). An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations.

Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1329 - Residential Wiring

Credits: 3 (2 lecture, 3 lab). Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: ELPT 1221 or CNBT 1201.

ELPT 1341 - Motor Control

Credits: 3 (2 lecture, 3 lab). Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations.

Prerequisite/Corequisite: ELPT 1311 or HART 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1345 - Commercial Wiring

Credits: 3 (2 lecture, 3 lab). Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures.

Prerequisites/Corequisites: ELPT 1221 and ELPT 1329; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: ELPT 1325.

ELPT 1355 - Electronic Applications

Credits: 3 (2 lecture, 3 lab). Electronic principles and the use of electronic devices. Includes diodes, transistors, and rectifiers Prerequisite: ELPT 1311 - Must be completed with a passing grade; TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1370 Electrical Blueprint Reading

Credits: 3 (3 lecture). Students in this award are required to learn how to read master blueprints for all structure and installations requiring electrical wiring from commercial buildings to installing solar panels. This course focuses on the electrician's responsibilities to follow the blueprint "electrical map" of all wires for all switches, fans, lighting, and all other electrical components required for each project while adhering to all regulatory codes, engineering, and architectural specifications. Other courses are either to generic or focus on other sub contractor's perspectives not the electrician.

ELPT 1371 Residential Fixtures and Controls

Credits: 3(2 lecture, 2 lab). This course enables the student to show proficiency in the installation of residential fixtures and control systems through the study of the theory and application of electrical principles. Such study includes, yet not limited to- the principles of electrical voltage, control systems, blueprints, and hardware installation. Students will demonstrate proficiency testing, measurement, installation; use of appropriate tools and safety, application specific lighting controls; and, installation of conductor terminations in accordance with NEC rules. Learn about new types of modern and smart home fixtures like smart doorbells, smart smoke detectors, electric tankless water heaters, and security systems in homes.

ELPT 1372 Commercial Fixtures and Controls

Credits: 3 (2 lecture, 2 lab). This course enables the student to show proficiency in the installation of commercial lighting systems through the study of the theory and application of electrical principles. Such study includes yet not limited to the principles of electrical voltage, control systems, blueprints, and hardware installation. Students will demonstrate proficiency in testing and measurement; use of appropriate tools and safety, application specific lighting controls; and, installation of conductor terminations in accordance with NEC rules.

ELPT 1373 Photovoltaic Fixtures and Controls

Credits: 3 (2 lecture, 2 lab). This course enables students to show proficiency in the installation and calculation of photovoltaic fixtures and control systems through the study of the theory, mathematics and application of electrical principles. Such study includes, yet not limited to the principles of electrical voltage, controls systems, blueprints, and hardware installation. Students will demonstrate proficiency of testing and controls, installation of conductor terminations in accordance with NEC rules. Learn different aspects of a complete solar system in a residential, commercial, recreational vehicles, boats, or stand-alone monitor system. Students will be able to complete a power audit based on power needs to align with the proposed solar system.

ELPT 1380 Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Credits: 3. (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 1391 Special Topics: Commercial Construction Technology

Credits: 3 (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ELPT 2305 Motors and Transformers

Credits: 3 (2 lecture, 2 lab). Operation of single- and three-phase motors and transformers. Includes transformer banking, power factor correction, and protective devices.

ELPT 2337 - Electrical Planning and Estimating

Credits: 3 (2 lecture, 4 lab). Planning and estimating for residential, commercial, and industrial wiring systems. Includes a variety of electrical techniques.

ELPT 2343 Electrical Systems Design

Credits: 3 (2 lecture, 2 lab). Electrical design of commercial and/or industrial projects including building layout, types of equipment, placement, sizing of electrical equipment, and all electrical calculations according to the requirements of the National Electrical Code (NEC).

ELPT 2347 Electrical Testing and Maintenance

Credits: 3 (2 lecture, 2 lab). Proper and safe use of electrical power equipment test devices and the interpretation of test results. Includes protective relay testing and calibration, direct current (DC) testing, insulation power factor testing, and medium voltage switchgear.

ELPT 2380 Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Credits: 3 (1 lecture, 15 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 2381 Cooperative Education - Electrical and Power Transmission Installation/Installer, General

Credits: 3 (1 lecture, 15 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ELPT 2419 - Programmable Logic Controllers I

Credits: 4 (3 lecture, 2 lab). Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. Prerequisite: ELMT 1301, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ELPT 2449 - Industrial Automation

Credits: 4 (3 lecture, 2 lab). Electrical control systems, applications, and interfacing utilized in industrial automation. Prerequisite/Corequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

EMSP 1160 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1501

EMSP 1263 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1355.

EMSP 1338 - Introduction to Advanced Practice

Credits: 3 (2 lecture, 3 lab). An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Prerequisite: EMSP 1160.

EMSP 1355 - Trauma Management

Credits: 3 (2 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Prerequisite: EMSP 1356.

EMSP 1356 - Patient Assessment and Airway Management

Credits: 3 (2 lecture, 3 lab). A detailed study of the knowledge and skills required to perform patient assessment and airway management. Prerequisite: EMSP 1338.

EMSP 1491 - Special Topics in Emergency Medical Technology/Technician

Credits: 1 (2 lecture, 5 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

EMSP 1501 - Emergency Medical Technician - Basic

Credits: 5 (3 lecture, 8 lab). Preparation for certification as an Emergency Medical Technician (EMT)-Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services.

EMSP 2160 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

EMSP 2205 - EMS Operations

Credits: 2 (4 lab). Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Prerequisite: EMSP 1356.

EMSP 2243 - Assessment Based Management

Credits: 2 (1 lecture, 4 lab). A capstone course covering comprehensive, assessment based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special-needs patients.

Prerequisite: EMSP 2262

EMSP 2261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2434.

EMSP 2262 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2330.

EMSP 2306 - Emergency Pharmacology

Credits: 3 (2 lecture, 4 lab). A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Prerequisite: EMSP 1263; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2330 - Special Populations

Credits: 3 (2 lecture, 4 lab). A detailed study of the knowledge and skills necessary to assess and manage ill or injured patients in diverse populations. Prerequisite: EMSP 2261.

EMSP 2434 - Medical Emergencies

Credits: 4 (3 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Prerequisite: EMSP 2160.

EMSP 2444 - Cardiology

Credits: 4 (3 lecture, 4 lab). Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Prerequisite: EMSP 2306.

EMSP 2553 - Emergency Medical Services Certification for Health Care Professionals

Credits: 5. (2 lecture, 9 lab). An equivalency course for Emergency Medical Services (EMS) certification under Texas Administrative Code for EMS Personnel Certification.

ENDO 1176 Practicum (or Field Experience) I

Credits: 1 (7 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

ENDO 1276 Practicum (or Field Experience) II

Credits: 2 (14 External). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

ENDO 1371 The Art of Team Work and Professional Skills

Credits: 3 (3 lecture). This course introduces Human Factors science as applied to the system of care, teaching students about the skills needed to function effectively and safely in teams in a modern surgical environment. The course covers the background psychology of interpersonal interactions and evidence from other industries on the barriers to safe and effective team communications loops, use of checklists and standard operating procedures, how to deal with team dysfunction, leadership, followership, effective briefing and debriefing, models of risk and error in health care, and the principles of risk minimization in systems involving humans.

ENDO 1472 Endoscopic Technology Theory

Credits: 4 (2 lecture, 4 lab). In depth coverage of the endoscopy equipment and accessories used for basic endoscopy procedure and assisting in the procedure during their use in patients: Topics include operating different types of endoscopes and processors; accessories such forceps, injection needle, snare, dilators, band ligatures, and clips.

ENDO 1473 Fundamentals of Aseptic Technique

Credits: 4 (2 lecture, 4 lab). In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing. In-depth understanding of and apply wellness and disease concepts. Recognize and practice infection control procedures. To give students basic knowledge of blood borne diseases, including HIV/AIDS.

ENDO 1474 ERCP, EUS & Bronchoscopy

Credits: 4 (2 lecture, 4 lab). Introduction to gastrointestinal and pulmonary pathology and its relationship to endoscopic procedures. Emphasis on endoscopic procedures and related to the investigation and treatment of the bile duct, pancreas, and respiratory tract incorporating instruments, equipment, and supplies required for safe patient care.

ENDO 1475 EGD Colonoscopy & Enteroscopy

Credits: 4 (2 lecture, 4 lab). Introduction to gastrointestinal pathology and its relationship to endoscopic procedures. Emphasis on endoscopic procedures related to the investigation and treatment of the esophagus, stomach, duodenum, colon, rectum, and anal canal incorporating instruments, equipment, and supplies required for safe patient care.

ENGL 0100 - Development Writing

Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrates high proficiency but do not meet state requirements for placement into college level course work. This course will present a concentrated review of the Writing Process and basic grammar and sentence structure. Department Chair approval required. Prerequisite: Department Chair approval

ENGL 0310 - Fundamentals of Grammar and Composition II

Credits: 3 (3 lecture, 1 lab). A course designed to prepare students for ENGL 1301. Students will ordinarily proceed to ENGL 0310 after taking ENGL 0300. Some students may, however, test directly into ENGL 0310 (ENGL 0300 is not a prerequisite for ENGL 0310). ENGL 0310 provides a basic review of the principles of grammar, usage and mechanics and utilizes the writing process to teach the students to write short essays (350-500 words). Prerequisite: Must be placed into ENGL 0310 or completion of ENGL 0300.

ENGL 1301 - Composition I

Credits: 3 (3 lecture). Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Note: ENGL 1301 is a pre-requisite for all 2000-level literature courses. Core Curriculum Course. Prerequisite: Appropriate score on TSI/ACT/SAT/STAAR, INRW 0420, Grade of C or better in ELA College Prep course from participating ISDs

ENGL 1302 - Composition II

Credits: 3 (3 lecture). Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Core Curriculum Course. Prerequisite: Composition 1301 or its equivalent

ENGL 2311 - Technical & Business Writing

Credits: 3 (3 lecture). Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, e-mail messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Core Curriculum Course. Prerequisite: ENGL 1301

ENGL 2322 - British Literature I

Credits: 3 (3 lecture). A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2323 - British Literature II

Credits: Credit 3 (3 lecture). A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2327 - American Literature I

Credits: 3 (3 lecture). A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2328 - American Literature II

Credits: 3 (3 lecture). A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2332 - World Literature I

Credits: 3 (3 lecture). A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2333 - World Literature II

Credits: 3 (3 lecture). A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2341 Forms of Literature

Credits: 3 (3 lecture). The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film.

ENGL 2351 - Mexican - American Literature

Credits: 3 (3 lecture). A survey of Mexican-American/Chicano/a literature including fiction, non-fiction, poetry, and drama. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGR 1201 - Introduction to Engineering

Credits: 2 (2 lecture). An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. Prerequisite: Math 1314 or 1414 College Algebra or equivalent academic preparation.

ENGR 1204 - Engineering Graphics I

Credits: 2 (2 lecture, 1 lab). Introduction to computer-aided drafting using CAD software and sketching to generate two and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Prerequisite: MATH 1314 or equivalent academic preparation.

ENGR 2301 - Engineering Mechanics - Statics

Credits: 3 (3 lecture, 1 lab). Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Prerequisite: PHYS 2325/2125 or University Physics I (lecture + lab). Pre/Corequisite: MATH 2414 Calculus II.

ENGR 2302 - Engineering Mechanics – Dynamics

Credits: 3 (3 lecture, 1 lab). Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton's Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems. Prerequisites: ENGR 2301 Engineering Mechanics – Statics.

ENGR 2304 - Programming for Engineers

Credits: 3 (2 lecture, 2 lab). Programming principles and techniques for matrix and array operations, equation solving, and numeric simulations applied to engineering problems and visualization of engineering information; platforms include spreadsheets, symbolic algebra packages, engineering analysis software, and laboratory control software. Prerequisite: MATH 2413; Recommended co-enrollment in MATH 2414.

ENGR 2332 Mechanics of Materials

Credits: 3 (3 lecture, 1 lab). Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Prerequisite: ENGR 2301 Engineering Mechanics – Statics.

ENGR 2333 Elementary Chemical Engineering

Credits: 3. (3 lecture) This course is the foundation for nearly all future chemical engineering courses and analysis. A strong foundation in mathematics, physics, and chemistry is required for application to the solution of problems in industrial chemistry. Students will receive an introduction to chemical engineering calculations, unit equations, process stoichiometry, material and energy balances, and states of matter, and will apply the laws of conservation of mass and energy to reacting and non-reacting, simple and complex chemical systems. Prerequisites: ENGR 1201 Introduction to Engineering, CHEM 1312/1112, or CHEM 1412 General Chemistry II (lecture + lab), MATH 2414 Calculus II, and University Physics I.

ENGR 2405 - Electrical Circuits I.

Credits: 4 (3 lecture, 3 lab). Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Laboratory experiments supporting theoretical principles presented in ENGR 2305 involving DC and AC circuit theory, network theorems, time, and frequency domain circuit analysis. Introduction to principles and operation of basic laboratory equipment; laboratory report preparation. Prerequisite: MATH 2414 or higher and PHYS 2326/2126 with grades of C or higher. Pre/Corequisite: MATH 2320 Differential Equations or equivalent.

ENTC 1347 - Safety and Ergonomics

Credits: 3 (2 lecture, 2 lab). Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues. Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 2331 - Manufacturing Materials

Credits: 4 (2 lecture, 3 lab). Identification of various materials used in manufacturing including metals, plastics, composite materials, concrete, ceramics, and wood. Examination of the properties of these materials and standards for quality measurement. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ESOL 0349 - Advanced Intermediate Conversation for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0345. This course is designed to further develop conversational skills by incorporating more complicated vocabulary and grammatical structures. Students are also required to present oral reports at various times during the semester. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0345. Corequisite: ESOL 0350, ESOL 0351 and ESOL 0352

ESOL 0350 - Advanced Intermediate Reading for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0346. An advanced intermediate course in reading academically oriented English. This course further develops reading comprehension skills and expands vocabulary. Emphasis is on distinguishing main ideas from supporting details and drawing conclusions. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0346. Corequisite: ESOL 0349, ESOL 0351 and ESOL 0352

ESOL 0351 - Advanced Intermediate Composition for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0347. This course concentrates on the development of writing skills, reviews the paragraph and its essential elements, and introduces the multi-paragraph essay. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0347. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0352

ESOL 0352 - Advanced Intermediate Grammar for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0348. This course provides a review of essential grammatical and structural features while introducing their finer points. Emphasis is placed on compound and complex sentence structures and is designed to lead students toward active mastery of the patterns and principles of formal written English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0348. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0351

ESOL 0353 - Advanced Reading for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0350. An advanced course designed to develop reading and critical thinking skills for college-bound students. Reading skills are refined to guide students towards mastery of deduction, inference, and figurative language. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0350. Corequisite: ESOL 0354, ESOL 0355 and ESOL 0356

ESOL 0354 - Advanced Composition for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0351. This course concentrates on elements of essay organization. Students are required to produce well-organized, well-substantiated essays. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0351. Corequisite: ESOL 0353, ESOL 0355 and ESOL 0356

ESOL 0355 - Advanced Grammar for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0352. This course provides a review of both essential and finer points of the grammatical structural features of formal written English. Emphasis is placed on active production and error analysis of standard English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0352. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0356

ESOL 0356 - Advanced Conversation for Foreign Speakers

Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0349. This course is designed to encourage student's use of high-level grammatical structures and vocabulary skills. Students are required to present an oral book report, an oral report of a personal, off-campus interview, and an oral research report. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0349. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0355

ESOL 0360 - Integrated Reading/Writing for Non-Native Speakers

Credits: 3 (2 lecture, 3 lab). ESOL 0360 is the exit-level integrated reading and writing (INRW) class for non-native speakers of English. This class helps students prepare for American core academic college courses. Students learn composition skills for writing in a variety of academic classes, such as in the humanities and social sciences. ESOL 0360 is the exit-level composition class for non-native speakers who plan to continue their education and earn a college degree. Prerequisite: ESOL0354.

ESOL 0370 - ESL Integrated Read/Write Course for ENGL 1301

Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301 for ESOL students: Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

ETWR 1302 - Introduction to Technical Writing

Credits: 3. (3 lecture). Introduction to the principles, techniques, and skills needed for scientific, technical, and business writing.

FIRS 1203 - Firefighter Agility and Fitness Preparation

Credits: 2 (1 lecture, 2 lab). Physical ability testing methods. Rigorous training in skills and techniques needed in typical fire department physical ability tests. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1301 - Fire Fighter Certification I

Credits: 3 (2 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1313 - Fire Fighter Certification III

Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1407; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1319 - Fire Fighter Certification IV

Credits: 3 (2 lecture, 2 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1313; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1329 - Fire Fighter Certification VI

Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1423; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1407 - Fire Fighter Certification II

Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1301; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1423 - Fire Fighter Certification V

Credits: 4 (3 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1319; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1433 - Fire Fighter Certification VII

Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite or Corequisite: FIRS 1329; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1202 - Plan Examiner I

Credits: 2 (2 lecture). Examination of plans submitted for approval by businesses, industry, or other regulated entities. Includes applicable codes and/or standards that meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1301 - Fundamentals of Fire Protection

Credits: 3 (3 lecture). Orientation to the fire service, career opportunities, related fields. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1303 - Fire and Arson Investigation I

Credits: 3 (3 lecture). Basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1307 - Fire Prevention Codes and Inspections

Credits: 3 (3 lecture). Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1309 - Fire Administration I

Credits: 3 (3 lecture). Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1315 - Hazardous Materials I

Credits: 3 (3 lecture). The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1327 - Building Construction in the Fire Service

Credits: 3 (3 lecture). Components of building construction that relate to life safety. Includes relationship of construction elements and building design impacting fire spread in structures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1338 - Fire Protection Systems

Credits: 3 (3 lecture). Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1340 - Fire Inspector II

Credits: 3 (2 lecture, 3 lab). Fire inspection rules, procedures, and inspection practices to meet the Texas Commission on Fire Protection requirements for Fire Inspector II. Prerequisite: FIRT 1408; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1342 - Fire Officer I

Credits: 3 (2 lecture, 2 lab). Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. ****THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION**** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1345 - Hazardous Materials II

Credits: 3 (3 lecture). Mitigation practices and techniques to effectively control hazardous material spills and leaks. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1408 - Fire Inspector I

Credits: 4 (2 lecture, 4 lab). Fire inspection including rules, codes, and field inspection practices to meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2188 - Internship-Emergency Management

Credits: 1 (6 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2305 - Fire Instructor I

Credits: 3 (3 lecture, 1 lab). Preparation of fire and emergency services personnel to deliver instruction from a prepared lesson plan. Includes the use of instructional aids and evaluation instruments to meet the Texas Commission on Fire Protection requirements for Fire Instructor I certification. Prerequisite: FIRS 1433 or proof of Firefighter II level certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2307 - Fire Instructor II

Credits: 3 (3 lecture, 1 lab). Development of individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments. Includes techniques for supervision and coordination of activities of other instructors to meet Texas Commission on Fire Protection requirements for Fire Instructor II certification. Prerequisite: FIRT 2305, or proof of Fire Instructor I certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2309 - Fire Fighting Strategies and Tactics I

Credits: 3 (3 lecture). Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2333 - Fire & Arson Investigation II

Credits: 3 (2 lecture, 3 lab). Fire Investigation techniques and defense of findings in a court room setting. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2351 - Company Fire Officer

Credits: 3 (3 lecture). A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2380 - Cooperative Education Fire Protection and Safety Technology / Technician

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 15 semester hours of FIRT/FIRS and Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2459 - Fire Instructor III

Credits: 4 (3 lecture, 2 lab). Development of comprehensive training curriculum and programs. Includes organization of needs analysis and development of training goals and implementation strategies to meet Texas Commission on Fire Protection requirements for Fire Instructor III. Prerequisite: FIRT 2307, or proof of the Fire Instructor II Certification

FLMC 1292 - Special Topics in Film - Video Making / Cinematography and Production

Credits: 2 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0310 in writing and MATH 0312 in math.

FLMC 1300 - Production Management

Credits: 3 (2 lecture, 4 lab). Managing above- and below-the-line film or video production costs. Emphasizes analysis of scripts and treatments to determine production costs, crewing requirements, location needs, equipment rentals, and associated production costs. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FLMC 1304 - Lighting for Film or Video

Credits: 3 (2 lecture, 4 lab). Lighting techniques for 16mm film or video production. (This class demonstrates advanced lighting techniques for 16mm film and video productions. Using a variety of lab projects and location settings, students will use lights, filters, in-camera special effects and mood setting techniques to enhance shot composition and camera movement. Topics also include operating film cameras, light meters and selecting film stock. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0312 in math.

FLMC 1311 - Survey of the Motion Picture

Credits: 3 (2 lecture, 4 lab). Overview of film History, Civilization, and techniques including introduction to cinematic elements and approaches to analysis and criticism. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 1331 - Video Graphics and Visual Effects I

Credits: 3 (2 lecture, 4 lab). A course in the applications of computers for video production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2330 - Audio Post Production

Credits: 3 (2 lecture, 4 lab). The technology, creative application and requirements for producing audio soundtracks for film and video. (This course explores the technology, creative application and requirements for producing audio soundtracks for film and video projects. Topics include time code, synchronization, mixing, Foley, dialog replacement, sound effects and location sound. The students will work on computerized workstations to produce finished audio tracks for various projects. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337 and RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2333 - Cinematography

Credits: 3 (2 lecture, 4 lab). Theoretical elements and practical applications of cinematography. (This class teaches theoretical elements and practical application of cinematography. While learning techniques of film production, students study historical and contemporary trends and styles. Theoretical topics include differences in film stocks, exposure, color theory and filters. Professional techniques that alter an image's character are demonstrated and discussed. Practical tests and scenes are shot using color and black and white film stocks. Students are required to attend additional lab hours outside of class.) Prerequisite: FLMC 1304; Must be placed into college-level reading, writing and math.

FLMC 2334 - Directing for Film or Video

Credits: 3 (2 lecture, 4 lab). Directing to lead a production team. (This course teaches the craft of directing to students who aspire to lead a production team. By analyzing the work of classic and contemporary directors, the class investigates the art and language of filmmaking. Topics include framing and composition, camera angles, camera movement, blocking of actors, visualizing action, and creating a sequence, script breakdown, and techniques for establishing mood, character, and conflict.) Prerequisite: FLMC 1300; must be placed into college-level reading, writing and math.

FLMC 2335 - Screenwriting for Features, Shorts and Documentaries

Credits: 3 (2 lecture, 4 lab). Screenwriting for the principle genres of film. (This class emphasizes screenwriting for the principle genres of film. Students will create treatments from dramatic concepts, turn these treatments into screenplays and complete full shooting scripts by the course's end. Topics include scriptwriting, formatting conventions and structural analysis of comedies, dramas, documentaries and short films. At the conclusion of the course students will submit an original script to a scriptwriting contest. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 1429; must be placed into college-level reading, college-level writing and MATH 0308 in math.

FLMC 2336 - Production Development - Producing

Credits: 3 (2 lecture, 4 lab). Sequential steps of supervision in all phases of film production and distribution. Includes resource acquisition and allocation. (During this class the student will address three primary questions posed when developing an idea for a film: What are you going to film? How are you going to film it? How are you going to structure the production? This class will teach students how to explore these questions fully before production begins. Class discussions, student projects and instructor analysis will emphasize the pre-production process: storyboarding shot lists, scheduling, location scouting, stock footage and budgeting. The class will also address design and aesthetic decisions in costuming, makeup and set design. Students are required to attend additional lab hours outside of class.) Prerequisite: FLMC 1300, RTVB 2337; must be placed into college-level reading, writing and math.

FLMC 2344 - Advanced Film and Video Editing

Credits: 3 (2 lecture, 4 lab). Exploration of the creative possibilities of non-linear film and video editing. Includes editing aesthetics, titles, graphic design, compositing, and special effects. Prerequisite: FLMC 1331, RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2380 Cooperative Education - Cinematography and Film/Video Production

Credits: 3. (1 lecture, 20 external) Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

FREN 1411 - Beginning French I

Credits: 4 (3 lecture, 2 lab). Introduction to the French language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite).

FREN 1412 - Beginning French II

Credits: 4 (3 lecture, 2 lab). Continuation of FREN 1411. Further development of listening comprehension, speaking, reading and writing skills and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: FREN 1411 or satisfactory score on an advanced placement examination or at least two years of high school French within the last two years; must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing. Corequisite: Or take ENGL 0310/0349 as a corequisite

FREN 2311 - Intermediate French I

Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning French. Introduction of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in French. Prerequisite: FREN 1412 or equivalent; must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

FREN 2312 - Intermediate French II

Credits: 3 (3 lecture). Continuation of FREN 2311 but with special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in French. Prerequisite: FREN 2311 or equivalent; must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing Corequisite: Or take ENGL 0310/0349 as a corequisite

FSHD 1235 - Millinery

Credits: 2 (2 lecture, 1 lab). A study of the basic skills and methods used to create hats. An application of the techniques used to design and produce hats for fashion, theater, historic reproduction and educational instruction purposes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1291 - Special Topics in Fashion Design and Illustration: Knitwear

Credits: 2 (2 lecture). An introductory course in the construction of masks through several techniques. The students will use their creativity to put their own spin on a traditional craft. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1302 - Introduction to Fashion

Credits: 3 (3 lecture). Survey of the world of fashion businesses. Introduction to the creation and merchandising of fashion through the study of fashion vocabulary, the fashion process, fashion publications and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHD 1311 - Fashion History

Credits: 3 (3 lecture). Survey of the evolution of fashion change traced through garment development from ancient times to present day. A study of customs and silhouettes of each historical period and their modern day adaptations. Examination of twentieth century fashion designers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1313 - Art for Fashion

Credits: 3 (3 lecture, 1 lab). A study of the basic elements and principles of art applied to the design of clothing for the human form. Emphasis on the basic body types; clothing silhouettes; fabric weights; and the use of line, movement, proportion, and color to achieve flattering, marketable fashion design.

FSHD 1318 - Apparel Computer Systems

Credits: 3 (3 lecture, 1 lab). An introduction to apparel computer systems used in wholesale and retail fashion businesses. Applications demonstrated include computer-aided garment and textile design, fashion illustration, pattern making, pattern grading, marker making, newsletters, brochures, advertisements and catalogs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHD 1322 - Fashion Sketching

Credits: 3 (3 lecture, 1 lab). Fundamentals of quick sketching to communicate design ideas. Instruction in drawing the male and female fashion figure. Emphasis on simple methods for making quick sketches to illustrate style information

FSHD 1324 - Ready-To-Wear Construction

Credits: 3 (2 lecture, 4 lab). Fundamentals of mass production of apparel, focusing on the operation of industrial sewing and pressing equipment. Survey of materials selection and construction techniques used at all price levels of mass produced apparel. Introduction to industry seam allowances. Identification of differences between ready-to-wear and couture construction. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1328 - Flat Pattern Design I

Credits: 3 (2 lecture, 3 lab). An introduction to the creative design of clothing through the flat pattern method. General principles of pattern making using the basic five-piece dress slope. A study of dart manipulation, slashing and spreading the pattern and contouring sew lines. Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1332 - Custom Patterns

Credits: 3 (2 lecture, 3 lab). Skill development in taking body measurements. Instruction in developing custom fittings for customized patterns. In depth coverage of the process of transferring a custom body fitted canvas to a basic dress form and padding it for custom sizing. Prerequisite: FSHD 1328 and FSHD 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1351 - Design Construction Techniques

Credits: 3 (2 lecture, 4 lab). A continuation of Ready-to-Wear Construction with emphasis on design details. Instruction in basic manipulation of a commercial pattern to create individual design details, dressmaking and fully lined unstructured garments in intermediate level fabrics. Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1355 - Flat Pattern Design II

Credits: 3 (2 lecture, 3 lab). A continuation of Flat Pattern Design I with emphasis on patterns for tailored garments. Instruction in creating a jacket sloper with a two piece suit sleeve to make patterns for a variety of jacket silhouettes. Adding shoulder pad allowance, drafting patterns for jacket linings and interfacing pieces, lapel and collar variations and various pants shapes. Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1372 - Knitwear Construction

Credits: 3 (2 lecture, 4 lab). Fundamentals of knit apparel mass production focuses on the operation of industrial overlock, overstitch, and pressing equipment. Survey of cu-and-sew knit materials, two-and four- way stretch, and types of fibers and their individual properties. Introduction to knitwear seam allowance, pattern, and finishing techniques applied on cut edges.

FSHD 1373 - Advanced Evening Wear

Credits: 3 (2 lecture, 4 lab). This course focuses on the development of advanced skills from a demand in the bridal and formal design wear in which students will gain aptitude in working with a variety of materials and achieve professional level results. The course covers: customized patter; advanced embellishment; strapless construction; satin-weave materials; lace and mesh; invisible closures; and couture edge finishes.

FSHD 2305 - Computer Aided Apparel Design

Credits: 3 (3 lecture, 3 lab). Fundamentals of computerized pattern design and marker making, as they pertain to the industrial production of apparel products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2306 - Draping

Credits: 3 (2 lecture, 3 lab). A study of three-dimensional fashion design conceptualizing by draping in muslin or fashion fabric directly on the dress form. Skill development in observing grain of fabric, identifying drapable fabrics and creating designs suitable for draping. Presentation of major fashion designers draping techniques. Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2310 - Fabric Design

Credits: 3 (2 lecture, 3 lab). Fundamentals of fabric design. Instruction in silk screen, batik, tie-dye, painting, resist dye, block print, stenciling and weaving. Skill development in fabric design and production suitable for fashion apparel. Prerequisite: FSHD 1324, FSHN 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2312 - Theatrical Costume Design

Credits: 3 (2 lecture, 3 lab). A study of garment design for the theater in which costumes are researched and designed for theatrical productions. Instruction in the effect of lighting and staging in relationship to costuming. Prerequisite: DRAM 1310; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2315 - Bustier Construction

Credits: 3 (2 lecture, 3 lab). Instruction in the skills and techniques for creating a boned bodice. Production of strapless bodices from fashion and theatrical sources through the pattern-making and construction process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2337 - Couture Dressmaking

Credits: 3 (2 lecture, 4 lab). A study of advanced apparel construction addressing couture dressmaking techniques, the traditional highest-quality methods for planning, cutting, sewing and pressing garments. Instruction in designing and producing couture fashion garments in advanced level fabrics. Prerequisite: FSHD 1351; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2341 - Pattern Grading

Credits: 3 (3 lecture, 1 lab). Instruction in sizing standard patterns larger and smaller for the mass production of apparel. A study of 1", 1-1/2", and 2" and S-M-L-XL grade rules and their applications. Skill development in grading basic and fashion patterns with the ruler, the grading machine, and the computer. Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2343 - Fashion Collection Design

Credits: 3 (2 lecture, 3 lab). Advanced concepts in designing a collection of marketable apparel. Instruction in developing a design work board for a specific target market and selecting the most marketable ideas for the collection. Projects in resource development, fabric selection, estimating wholesale costs and initial pattern and garment production. Prerequisite: FSHD 1351, FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2344 - Fashion Collection Production

Credits: 3 (2 lecture, 3 lab). A continuation of the Fashion Collection Design course. Emphasis on the production, costing and marketing of a cohesive collection of fashion apparel. Instruction in completing production patterns for all collection garments. Prerequisite: FSHD 2343; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2388 - Internship - Fashion / Apparel Design

Credits: 3 (16 External) (256 hours work experience). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0306 in math.

FSHN 1301 - Textiles

Credits: 3 (3 lecture, 1 lab). A general study of textiles with emphasis on factors that affect the hand, appearance and performance in clothing use. Examination of the properties of natural and man-made fibers, how yarn is formed, methods of production and the properties of a wide variety of fabrics. Application of textiles used in the apparel industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1305 - Apparel Alterations

Credits: 3 (2 lecture, 3 lab). Skill development in fitting, altering, conserving and restyling apparel for men, women and children. Preparation for fitting, alterations, conservation and restoration work for a retail store, dry cleaning establishment, wedding gown business or historical costume collection. Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1320 - Fashion Selling

Credits: 3 (3 lecture). Examination of selling techniques for fashion apparel and accessories in retail and wholesale settings. Identification of buying motives, sales psychology, customer approach and closure. Instruction in product analysis, building a regular clientele, developing a fashion vocabulary and training and motivating a sales staff. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 1329 - Basic Men's Tailoring

Credits: 3 (2 lecture, 3 lab). An introduction to tailoring men's structured apparel including fundamentals of sewing machine operations, fabric preparation and cutting, machine and hand sewing techniques, and pressing proficiency including instruction in pattern and alterations, assembling men's jackets, vests and pants, and fitting and alterations procedures. Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2301 - Fashion Promotion

Credits: 3 (3 lecture). A survey of fashion direction, publicity and fashion event coordination. Emphasis on fashion show production from idea to runway, including theme development, stage/set design, choreography, music coordination, lighting, lineup, model fittings, rehearsal and press kit development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2303 - Fashion Buying

Credits: 3 (3 lecture). Fundamentals of fashion buying with instruction in planning, pricing, and purchasing retail fashion inventories. Identification of wholesale merchandise resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 2305 - Fashion Retailing

Credits: 3 (3 lecture). An overview of fashion retailing procedures used in various types of retail fashion companies. A study of profit and loss, pricing, markup, inventory control, shortages, forecasting, store organization, and events. Examination of the wide variety of job opportunities available in the retail fashion industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2307 - Fashion Advertising

Credits: 3 (3 lecture). General principles and practices of fashion advertising and consumer directed communication. A study of persuasive media approaches for public relations induced publicity and advertising produced sales promotions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2309 - Fashion Image

Credits: 3 (3 lecture). Instruction in the techniques used to analyze the fashion image of individual clients. Emphasis on personal coloring, color harmonies, appropriate fabric textures, body proportion and silhouette, figure, facial and hair analysis, and wardrobe coordination. Study of fashion image consultant business practices and job qualifications. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2320 - Visual Merchandising

Credits: 3 (2 lecture, 3 lab). Skill development in the creation of showroom or retail store window/interior displays that sell merchandise. Study of the basic techniques of store planning, mannequin dressing, alternate form design, and display space conceptualization and implementation. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2388 - Internship - Fashion Merchandising

Credits: 3 (16 external) (256 hours work experience). Principles and practices in resume and cover letter A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0308 in math.

FSHN 2432 - Advanced Pattern Drafting

Credits: 4 (4 lecture, 1 lab). Advanced techniques for drafting patterns.) Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

GAME 1212 - Game Theory

Credits: 2 (1 lecture, 3 lab). Game and simulation design. Application of design theories to production-based projects from the conceptual stage to a completed project. Prerequisite: GAME1306; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1302 - Interactive Storyboarding

Credits: 3 (2 lecture, 4 lab). In-depth coverage of storyboarding for the development of interactive media. Addresses target audience analysis, purpose, goals and objectives, content outline, flow chart, and interactive storyboarding. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. .

GAME 1303 - Introduction to Game Design and Development

Credits: 3. (2 lecture, 4 lab). Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry

GAME 1304 - Level Design

Credits: 3 (2 lecture, 4 lab). Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1306 - Design and Creation of Games

Credits: 3 (2 lecture, 4 lab). Introduction to game and simulation development. Includes analysis of existing applications and their play elements. In-depth coverage of the elements of the application and examination of social issues, genres, and trends. Also covers creation of design documents, investigation of why people play games, review of technological and cultural History, Civilization, of electronic games, survey of the major innovators and historical figures of the industry, and examination of the trends and taboos that motivate game design. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1314 - Character Sculpting

Credits: 3 (2 lecture, 4 lab). Creation of original characters from the drawing stage to sculpting clay status. Explores a variety of poses using clay and aluminum armatures. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1336 - Introduction to 3D Game Modeling

Credits: 3 (2 lecture, 4 lab). Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting a game level to function in real time. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1373 - Introduction to Perspective Drawing

Credits: 3 (2 lecture 4 lab). An introduction to perspective drawing, lighting and object shading for the purpose of producing art for games and simulations.

GAME 1374 - Introduction to 3D Game Animation

Credits: 3 (2 lecture 4 lab). Introduce industry software tools used in creating game and simulation animation. Introduce techniques used to create movement of game assets; covers the principles of animation and their application in 3D space. Introduces animation issues such as animation hierarchies, game combat timing, and in-game storytelling. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1375 - Principles of Game Concept Art

Credits: 3 (2 lecture, 4 lab). A study of traditional art techniques and its applications to game concept art. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1378 - Art For 2D Games

Credits: 3 (2 lecture, 4 lab). Introduction to industry tools for the purpose of creating 2D game assets for gaming and simulation. Includes the art of spriting, 2D animation, 2D texturing, color theory, image manipulation, custom user interface, weapon designs, character design, heads up display, game user interface, file formatting, proper importing and exporting for games, understanding of design principles for games and marketing for games

GAME 2302 - Mathematical Applications for Game Development

Credits: 3 (2 lecture 4 lab). Presents applications of mathematics and science in game and simulation programming. Includes the utilization of matrix and vector operations, kinematics, and Newtonian principles in games and simulations. Also covers code optimization. Prerequisite: GAME 1306 and programming; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2304 - Level Design II

Credits: 3 (2 lecture, 4 lab). Intermediate approach to the tools and concepts used to develop levels of games and simulations. Incorporates an intermediate exploration of level design, architecture theory, concepts of critical path and flow, balancing, play testing and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: GAME 1304; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2308 - Portfolio for Game Development

Credits: 3 (2 lecture 4 lab). Design and management of an industry standard portfolio. Includes techniques in self-promotion, resume writing, portfolio distribution systems, and interviewing. Prerequisite: GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2312 - Interactive Audio

Credits: 3. (2 lecture, 4 lab). Music and sound effects. Includes formats, working within memory budgets, interactive systems, and foley libraries. Addresses a range of practical audio-related areas. Utilize music and sound effects in games; demonstrate techniques for working within memory budgets; utilize interactive systems and foley libraries.

GAME 2319 - Game Engine

Credits: 3 (2 lecture, 4 lab). Commercial and open source gaming engines. Includes discussions and recommendations for game engines to fit industry specifications. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2332 - Project Development I

Credits: 3 (2 lecture, 4 lab). Skill development in an original modification based on a current game engine. Includes management of version control; development of project timeliness; integration of sound, models, and animation; production of demos; and creation of original levels, characters, and content for a real-time multiplayer game. Applies skills learned in previous classes in a simulated real-world design team experience. Prerequisite: GAME 1371, GAME 1372, GAME 1212; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2334 - Project Development II

Credits: 3 (2 lecture, 4 lab). Continuation of an original modification based on a current game engine with an emphasis on new content and significant changes in game play over the base game experience. Includes creation of original levels, characters, and content for a real-time multiplayer game applying skills learned in previous classes. (formerly GAME 2375) Prerequisite: GAME 1336, GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2336 - Lighting, Shading and Texture

Credits: 3 (2 lecture, 4 lab). Lighting, shading, and texture painting for 3D models using digital painting techniques. Emphasizes lighting, shading, and texture creation of limited resolution to increase system performance for digital games and simulation training models. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2341 - Game Scripting

Credits: 3 (2 lecture, 4 lab). Scripting languages with emphasis on game concepts and simulations. Prerequisite: GAME 1372; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2342 - Game Development Using C++

Credits: 3 (2 lecture, 4 lab). Skill development in C++ programming for games and simulations. Examines real-world C++ development issues. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2347 - Advanced Game Programming

Credits: 3 (2 lecture, 4 lab). Optimization of student-created games. Includes performance tuning, debugging, designing for test, software architecture design, object-oriented practices for game play, asset management, and coding best practices. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2373 - 2D Game Programming

Credits: 3 (2 lecture, 4 lab). Design and development of 2D games and simulations. Includes the design of the user interface, animation, and software development techniques using industry standard development tool. Prerequisite: GAME 1372; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2374 - 3D Rigging for Games and Simulation

Credits: 3 (2 lecture, 4 lab). An introduction to bone rigs and morph targets to properly set up a character for animation. In addition, rig bipedal characters, quadrupedal characters and props. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2376 Advanced 3D Game Modeling

Credits: 3 (2 lecture, 4 lab). Advanced production of 3D modeling and texturing, for video games and simulations, using sophisticated modeling techniques as well as in game engine lighting and rendering to produce professional results. Prerequisite: GAME 1336 Introduction to 3D Game Modeling.

GAME 2378 - Techniques of Game Art

Credits: 3 (2 lecture, 4 lab). A study of industry-used, game-art techniques and its applications of 3D game art assets. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2379 Motion Capture

Credits: 3 (2 lecture, 4 lab). Introduction to motion capture system. Examine the pipeline from calibrating the system, capturing data, editing the data using appropriate software, and applying data to 3D objects for animation. Prerequisites: GAME 1336, GAME 2332.

GEOG 1301 - Physical Geography

Credits: 3 (3 lecture). An introduction to the earth's physical elements. Emphasis is placed on the interrelationships within and between the atmosphere, hydrosphere, lithosphere, and biosphere. Map applications and other tools are used to help understand topics such as weather and climate, soils, ecosystems, and natural resources (Non Lab Natural Science). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

GEOG 1302 - Human Geography

Credits: 3 (3 lecture). A survey of the cultural diversity found on earth. Topics include population, language, religion, ethnicity, and popular culture, with a special focus on spatial attributes and expressions of culture. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

GEOG 1303 - World Regional Geography

Credits: 3 (3 lecture). This course is an introduction to the world's major regions seen through their defining physical, social, cultural, political, and economic features. These regions are examined in terms of their physical and human characteristics and their interactions. The course emphasizes relations among regions on issues such as trade, economic development, conflict, and the role of regions in the globalization process. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

GEOG 1301 - Earth Sciences for Non-Science Majors I (Lecture)

Credits: 3 (3 lecture). Survey of geology, meteorology, oceanography, and astronomy. This course satisfies the Life and Physical Sciences or CAO of the HCC core" statement. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

GEOG 1305 - Environmental Science (Lecture)

Credits: 3 (3 lecture). A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

GEOL 1345 – Oceanography (Lecture)

Credits: 3 (3 lecture). An introduction to the world's oceans, emphasizing the geological, physical, biological, chemical, and ecological aspects of the marine environment. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1347 – Meteorology (Lecture)

Credits: 3 (3 lecture). The study of basic principles of weather and climate and the pervasive effects of weather conditions on daily lives, commerce, agriculture, urban planning and other human activity. The course offers basic scientific theory with applications familiar to the student. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1403 - Physical Geology (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or INRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1404 - Historical Geology (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). A comprehensive survey of the History, Civilization, of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the History, Civilization, of life and major events in the physical development of Earth from rocks and fossils. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: GEOL 1403

GERM 1411 - Beginning German I

Credits: 4 (3 lecture, 2 lab). Introduction to German language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

GERM 1412 - Beginning German II

Credits: 4 (3 lecture, 2 lab). Continuation of GERM 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: GERM 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school German within the last two years; must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

GISC 1401 - Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems

Credits: 4 (2 lecture, 4 lab). Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation. Prerequisite: GISC 1411 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1411 - Introduction to Geographic Information Systems (GIS)

Credits: 4 (2 lecture, 4 lab). Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1421 - Introduction to Raster - Based Geographic Information Systems (GIS)

Credits: 4 (2 lecture, 4 lab). Instruction in GIS data sets including raster- based information such as images or photographs, acquisition of such data, and processing and merging with vector data. Prerequisite: GISC 1411 or Department Approval; must be placed into college-level reading, writing and math.

GISC 1491 - Special Topics in Cartography

Credits: 4 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2250 - Scripting for Geographic Information Systems (GIS)

Credits: 2 (1 lecture, 2 lab). Using scripting languages (Python) to automate tasks in Geographic Information Systems (GIS) environments. Introduces scripting and model building techniques used to enhance and customize GIS applications. Prerequisite: GISC 1401, GISC 1411; must be placed into college-level reading, writing and math.

GISC 2359 - Web-Served Geographic Information Systems (GIS)

Credits: 3 (2 lecture, 3 lab). Delivery of geographic data via the Internet. Includes composition of the map features distributed and introduction on the use of markup languages to customize web-based Geographic Information Systems (GIS). Prerequisite: GISC 1401, GISC 1491; must be placed into college-level reading, writing and math.

GISC 2364 - Practicum (or Field experience) - Cartography

Credits: 3 (21 External). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2380 - Cooperative Education - Cartography

Credits: 3 (21 External). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2401 - Data Acquisition and Analysis in Geographic Information Systems (GIS)

Credits: 4 (2 lecture, 4 lab). Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis. Prerequisite: GISC 1401 or Department Approval; must be placed into college-level reading, writing and math.

GISC 2411 - Geographic Information Systems (GIS) Applications

Credits: 4 (2 lecture, 4 lab). Application of GIS technology to real workplace applications from public and private sectors. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises. Prerequisite: GISC 1401, 1421, or Department Approval; must be placed into college-level reading, writing and math.

GOVT 2304 - Introduction to Political Science

Credits: 3 (3 lecture). An introduction to the History, Civilization, scope, and methods of political science. Among the topics covered are the different conceptions of politics and science and the relationships between them, the major controversies over the possibility and shape of political science, and the different approaches employed in the study of politics. Prerequisite: Must be placed into college-level reading and college-level writing.

GOVT 2305 - Federal Government

Credits: 3 (3 lecture). Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a corequisite.

GOVT 2306 - Texas Government

Credits: 3 (3 lecture). Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a corequisite.

GOVT 2311 – Mexican American and Latino Politics

Credits: 3. The study of Mexican American and Latino politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latino populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.

GUST 0100 - Developmental Reading

Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrates high proficiency but do not meet state requirements for placement into core course work. This course will present a concentrated review of basic Reading and Vocabulary Skills. Department Chair approval is required. Prerequisite: Department Approval

GUST 0339 - Introduction to Reading

Credits: 3 (3 lecture, 1 lab). A basic reading course designed to improve student's overall reading skills. Emphasis is on reading comprehension, vocabulary development, study techniques, career planning and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Prerequisite: Must be placed into GUST 0339 (or higher) in reading.

GUST 0340 - Developmental Reading for Non - Native Speakers of English

Credits: 3 (3 lecture, 1 lab). A basic reading course for non-native English speakers designed to improve student's overall reading skills. Emphasis on reading comprehension, vocabulary development, study techniques, and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Recommended on the basis of CELSA test scores. Prerequisite: Satisfactory score on CELSA test

GUST 0341 - Developmental Reading I

Credits: 3 (3 lecture, 1 lab). Developmental Reading I is designed to address the developmental readers need for direct instruction in basic reading behaviors that are essential to the acquisition of knowledge in the content areas. Instruction is based on an interactive reading method with emphasis on learning to learn. These key skills include previewing chapters, selecting and organizing the information read and critical reading, making informed decisions about that information. Prerequisite: Must be placed into GUST 0341 in reading or completion of GUST 0339 or 0340.

GUST 0342 - Developmental Reading II

Credits: 3 (3 lecture, 1 lab). Developmental Reading II is a continuation of reading skills introduced in GUST 0341. Stronger emphasis is on critical reading and thinking skills. The goal of GUST 0342 is to teach students to analyze materials thoughtfully, synthesize materials from various sources, and apply this information to their reading. Prerequisite: Must be placed into GUST 0342 in reading or completion of GUST 0341.

HALT 1301 - Principles of Horticulture

Credits: 3. (3 lecture). An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture.

HALT 1305 – Horticultural Soils

Credits: 3 (2 lecture, 2 lab). A study of the physical properties of soil including structure and texture. Topics include the origin and development of soils, the composition of a soil horizon, and the interrelationship between soil fertility and plants.

HALT 1319 - Landscape Construction

Credits: 3 (2 lecture, 2 lab). Exploration of landscape construction materials and methods of installation. Topics on soil preparation, including wood, concrete, masonry construction and landscape lighting including pools, spas, and general construction details. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1322 - Landscape Design

Credits: 3 (2 lecture, 2 lab). A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and plan preparation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1324 - Turfgrass Science & Management

Credits: 3 (2 lecture, 2 lab). Coverage of various species of warm and cool season grasses including their uses, application, adaptability, environmental tolerances, anatomy, and physiological responses. Discuss turfgrass quality, selection, and adaptation; describe cultural practices of major cool and warm season turfgrasses; examine turfgrass responses to different environmental conditions; and identify cultural practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1325 - Landscape Plant Material

Credits: 3 (2 lecture, 2 lab). Study of the identification, characteristics, cultural requirements, and landscape uses of native and adapted plants. Identify plants; select plants for various landscape situations; list characteristics of plants; and describe cultural requirements of plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1327 - Horticultural Equipment Management

Credits: 3 (2 lecture, 2 lab). Application of various types of powered equipment used in the horticulture industry. Presentation of functions, operations, troubleshooting techniques, and repair of equipment. Describe the functions, operations, and maintenance of various types of equipment; and troubleshoot problems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1331 - Woody Plant Materials

Credits: 3 (2 lecture, 2 lab). Study of woody plant materials used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Identify woody plants in various growth stages; describe morphological, anatomical, or other botanical features; and explain cultural requirements of woody plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1351 - Landscape Business Operations

Credits: 3 (2 lecture, 2 lab). Instruction in the structure of the landscape business including cost estimation; organization; equipment needs; interpretation of financial reports; and material, labor, and equipment management. Emphasis on the types of landscape operations, marketing, legal forms, construction law, and safety. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1380 - Cooperative Education - Applied

Horticulture/Horticultural Operations, General Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1491 – Special Topics in Horticulture Services Operations and Management, General

Credits: 4 (3 lecture, 2 lab). Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

HALT 2315 - Landscape Management

Credits: 3 (2 lecture, 2 lab). A study of the procedures and practices used in the horticulture industry for proper landscape maintenance. Topics include landscape installation, lawn maintenance, shrub and tree care, and management practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2323 - Horticultural Pest Control

Credits: 3 (2 lecture, 2 lab). Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; integrated pest management (IPM); and chemical, natural, and biological controls.

HALT 2331 - Advanced Landscape Design

Credits: 3 (2 lecture, 2 lab). In-depth coverage of advanced practices in landscape planning for commercial and residential landscapes. Topics include advanced design analysis, architectural elements, space articulation, and land engineering concepts. Prerequisite: HALT 1322; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1313 - Front Office Management

Credits: 3 (3 lecture). A study of the flow of activities and functions in today's lodging operation. Topics include a comparison of manual, machine assisted, and computer based methods for each front line function. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1321 - Introduction to Hospitality Industry

Credits: 3 (3 lecture). An exploration of the elements and career opportunities within the multiple segments of the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1324 - Hospitality Human Resources Management

Credits: 3 (3 lecture). Principles and procedures of human resource management in the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1340 - Hospitality Legal Issues

Credits: 3 (3 lecture). A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1342 - Guest Room Management

Credits: 3 (2 lecture, 3 lab). A study of the working relationship among housekeeping, front office, and maintenance in the lodging industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2280 - Cooperative Education - Hospitality Administration/Management, General Credits: 2 (1 lecture, 7 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

HAMG 2305 Hospitality Management & Leadership Credits: 3 (3 lecture). An overview of management and leadership in the hospitality industry with an emphasis on management philosophy, policy formulation, communications, motivation and team building. Prerequisites: HAMG 1321, 1324.

HAMG 2307 - Hospitality Marketing and Sales Credits: 3 (3 lecture). Identification of the core principles of marketing and their impact on the hospitality industry. Prerequisite: HAMG 1321; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2330 Convention and Group Management Services Credits: 3. (3 lecture). An application of the essential components of successful convention and meeting planning. Prerequisite: TRVM 1327.

HAMG 2337 - Hospitality Facilities Management Credits: 3 (3 lecture). Identification of hospitality building systems and facilities; to include sustainability and risk management. Describe the role and function of the engineering and maintenance departments within the hospitality industry; assess the security procedures for guest protection, internal control, and ADA building requirements; analyze the selection factors for contract maintenance services; and identify sustainability trends in the hospitality industry Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2380 - Cooperative Education - Hospitality Administration/Management, General Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

Prerequisite: HAMG 1324 Hospitality Human Resources Management; Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Corequisite: 20 hours or more a week of approved hotel or restaurant related employment

HAMG 2480 - Cooperative Education - Hospitality Administration/Management, General Credits: 4 (1 lecture, 21 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component

HART 1301 - Basic Electricity for HVAC Credits: 3 (2 lecture, 3 lab). Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation. Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1303 - Air Conditioning Control Principles

Credits: 3 (2 lecture, 3 lab). A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1307 - Refrigeration Principles

Credits: 3 (2 lecture, 3 lab). An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components. Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1341 - Residential Air Conditioning

Credits: 3 (2 lecture, 3 lab). A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Prerequisite: HART 1301, 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: TECM 1301.

HART 1345 - Gas and Electric Heating

Credits: 3 (2 lecture, 3 lab). A study of components, applications and installation of mechanical air conditioning systems including operating conditions, troubleshooting repair, and charging of air conditioning systems. Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: HART 1341.

HART 1356 - EPA Recovery Certification Preparation

Credits: 3 (2 lecture, 3 lab). Certification training for HVAC refrigerant recovery and recycling. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: TECM 1301;

HART 2302 - Commercial Air Conditioning System Design

Credits: 3 (2 lecture, 3 lab). Advanced study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers' data; and preparation of shop drawings and submittals.

HART 2334 - Advanced Air Conditioning Controls

Credits: 3 (2 lecture, 3 lab). Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2336 - Air Conditioning Troubleshooting

Credits: 3 (2 lecture, 3 lab). An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Prerequisite: HART 1341, HART 1345, HART 2342; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2341 - Commercial Air Conditioning

Credits: 3 (2 lecture, 3 lab). Apply and describe the sequence of operation for commercial air conditioning systems and their accessories; identify components relative to commercial air conditioning; and explain energy efficient and renewable energy technologies. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisites/Corequisite: HART 1345

HART 2342 - Commercial Refrigeration

Credits: 3 (2 lecture, 3 lab). Theory of and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisites/Corequisite: HART 1345

HART 2345 - Residential Air Conditioning System Design

Credits: 3 (2 lecture, 3 lab). Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2349 - Heat Pumps

Credits: 3 (2 lecture, 3 lab). A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Prerequisite/Corequisite: HART 1345

HART 2374 - Building Control Systems and Automation

Credits: 3 (2 lecture, 3 lab). Theory and application of building control systems and automation, components, hardware and software.

HIST 1301 - United States History I

Credits: 3 (3 lecture). The American nation from the English colonization to the close of the Civil War through Reconstruction. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 1302 - United States History II

Credits: 3 (3 lecture). The American nation from the end of the Reconstruction Era to the present. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2301 - Texas History

Credits: 3 (3 lecture). A survey of the political, economic, social, cultural, and intellectual development of Texas from the period of Spanish discovery to the present. History, Civilization, of Texas may be substituted for either HIST 1301 or HIST 1302. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2311 - Western Civilization I

Credits: 3 (3 lecture). Development of ancient, medieval, and early modern civilizations to 1660. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2312 - Western Civilization II

Credits: 3 (3 lecture). Development of modern western civilization from 1660 to 1945. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core.

Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2321 - World Civilizations I

Credits: 3 (3 lecture). A survey of the major western and non-western civilizations which developed from Sumerian to the end of the Middle Ages. Centered around a series of themes, particular emphasis is placed on the commonality of the human experience as illustrated in Europe, the Middle East, Asia and Sub-Saharan Africa. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2322 - World Civilizations II

Credits: 3 (3 lecture). This course analyzes the effect on the world of the changing relationship between the West and the non-West over the past 500 years. Emphasis will be placed on the social, political and economic dynamics of this interchange. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core.

Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2327 - Mexican-American History I

Credits: 3 (3 lecture). A survey of the role of the Mexican-American in United States history. Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2328 - Mexican-American History II

Credits: 3 (3 lecture). A survey of the role of the Mexican-Americans in United States History, Civilization. Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2381 - African-American History

Credits: 3 (3 lecture). A survey of the social, political, economic, cultural, and intellectual history of people of African descent in the formation and development of the United States to the Civil War/Reconstruction period. African American History I include the study of African origins and legacy, trans-Atlantic slave trade, and the experiences of African Americans during Colonial, Revolutionary, Early National, Antebellum, and the Civil War/Reconstruction Eras. This course will enable students to understand African American history as an integral part of U.S. history. (May be applied to the U.S. History requirement.) Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2382 African American History II

Credits: 3 (3 lecture). A survey of the social, political, economic, cultural, and intellectual history of people of African descent in the United States from the Civil War/Reconstruction period to the present. African American History II examines segregation, disenfranchisement, civil rights, migrations, industrialization, world wars, the Harlem Renaissance and the conditions of African Americans in the Great Depression, Cold War and post-Cold War eras. This course will enable students to understand African American history as an integral part of U.S. history. (May be applied to the U.S. History requirement.)

HITT 1166 – Practicum (or Field Experience) – Health Information/Medical Records

Technology/Technician

Credits: 1 (8 lab). Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1167 Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician

Credits: 1 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

HITT 1211 - Health Information Systems

Credits: 2 (2 lecture, 1 lab). Concepts of computer technology related to health care data. Prerequisite: POFI 1301 or ITSC 1309; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1249 - Pharmacology

Credits: 2 (2 lecture, 1 lab). Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems. Prerequisite: HITT 1305, HITT 1345, BIOL 2302, 2102; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1253 - Legal and Ethical Aspects of Health Information

Credits: 2 (2 lecture, 1 lab). Apply local, state, and federal standards and regulations for the control and use of health information; demonstrate appropriate health information disclosure practices; and identify and discuss ethical issues in health care. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1255 - Health Care Statistics

Credits: 2 (1 lecture, 3 lab). General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data with overview of guidelines for Texas Department of Health Vital Statistics and Studies Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1301 - Health Data Content and Structure

Credits: 3 (2 lecture, 2 lab). Introduction to system and processes for collecting, maintaining and disseminating primary and secondary health related information. Introduction in delivery and organizational structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1305 - Medical Terminology I

Credits: 3 (2 lecture, 2 lab). Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1341 - Coding and Classification Systems

Credits: 3 (2 lecture, 4 lab). Application of basic coding rules, principles, guidelines, and codes as outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry inventions. Prerequisite: HPRS 2301, HITT 1349; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1345 - Health Care Delivery Systems

Credits: 3 (3 lecture). Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. Prerequisite: HITT 1301; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2149 - RHIT Competency Review

Credits: 1 (3 lab). Review of HIT competencies, skills, and knowledge base pertinent to the technology and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2166 - Practicum (or Field Experience) - Health

Information/Medical Records Technology/Technician
Credits: 1 (8 Lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

HITT 2167 - Practicum (or Field Experience) - Health Information/Medical Records

Technology/Technician

Credits: 1 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2239 - Health Information Organization and Supervision

Credits: 2. (2 lecture, 1 lab). Principles of organization and supervision of human, financial, and physical resources.

HITT 2335 - Coding and Reimbursement Methodologies

Credits: 3 (2 lecture, 3 lab). Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisite: HITT 1341; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2343 Quality Assessment & Performance Improvement

Credits: 3 (3 lecture, 1 lab). Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

HLAB 1266 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

HLAB 1267 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1266; Department Approval; must be placed into college-level reading, writing and math.

HLAB 1268 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1267; Department Approval; must be placed into college-level reading, writing and math.

HLAB 1301 - Introduction to Histotechnology
Credits: 3 (3 lecture, 1 lab). Introduction to the healthcare environment and the histology laboratory. Includes laboratory safety and infection control; healthcare professionals; medical terminology; basic anatomy and physiology; laboratory mathematics; communication; and ethics, legal, and professional issues. Prerequisite: Must be placed into college-level reading, writing and math.

HLAB 1305 - Functional Histology I
Credits: 3 (3 lecture, 1 lab). Recognition, composition, and function of cells, cell life cycles, blood, and basic tissue types. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1346 - Functional Histology II
Credits: 4 (4 lecture). A continuation of Functional Histology I. Emphasis on the recognition, composition, and function of organ systems. Includes skeletal tissues, central nervous system, circulatory system, endocrine glands, and reproductive system. Prerequisite: HLAB 1405; must be placed into college-level reading, writing and math.

HLAB 1402 - Histotechnology I
Credits: 4 (3 lecture, 3 lab). Introduction to the basic theories and practices of histotechnology. Includes laboratory safety, fixation, tissue processing, embedding, microtomy and cryotomy, and routine staining. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1443 - Histotechnology II
Credits: 4 (3 lecture, 3 lab). A continuation of Histotechnology I. Introduces both theory and practice of common histochemical staining techniques. Topics include laboratory safety; laboratory mathematics and reagent preparation; basic tissue/dye bonding; differentiation and quality control; and nuclear, connective tissue, and carbohydrate staining techniques. Prerequisite: HLAB 1402; must be placed into college-level reading, writing and math.

HLAB 2341 - Registry Review
Credits: 3 (3 lecture). Review of the major theoretical/practical applications in histotechnology. Includes fixation, processing, embedding, microtomy, frozen cryotomy, routine and special stains, tissue identification, immunohistochemistry, enzyme histochemistry, and electron microscopy. Emphasis on employment skills, review of ethical and legal behavior, and professional development. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

HLAB 2434 - Histotechnology III

Credits: 4 (3 lecture, 3 lab). A continuation of Histotechnology II. Further introduces theory and practice of routine histochemical staining techniques. Techniques include microorganisms, tissue pigments and minerals, and neural tissue. Includes specialized techniques such as electron microscopy, immunohistochemistry, and muscle enzyme histochemistry. Prerequisite: HLAB 1443; must be placed into college-level reading, writing and math.

HPRS 1201 - Introduction to Health Professions

Credits: 2 (2 lecture, 1 lab). An overview of roles of various members of the health care system, educational requirements, and issues affecting the delivery of health care. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HPRS 1206 - Essentials of Medical Terminology

Credits: 2 (2 lecture, 1 lab). A study of medical terminology, word origin, structure, and application. Prerequisite: Must be placed into college-level reading, writing and math.

HPRS 1304 - Basic Health Profession Skills

Credits: 3 (2 lecture, 3 lab). A study of concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring and health documentation. Includes CPR, OSHA safety guidelines, universal health precautions, emergency preparedness and response to basic medical emergencies.

HPRS 2201 - Pathophysiology

Credits: 2 (2 lecture, 1 lab). Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reaction to diseases and injuries. Prerequisite: BIOL 2402; must be placed into college-level reading, writing and math.

HPRS 2232 - Health Care Communications

Credits: 2 (2 lecture, 1 lab). Methods of communication with clients, client support groups, health care professionals, and external agencies. Prerequisite: PTHA 1305, PTHA 1413, PTHA 1301, HPRS 1206; must be placed into college-level reading, writing and math.

HRPO 1302 - Human Resources Training and Development

Credits: 3 (3 lecture). An overview of the human resource development function specifically concentrating on the training and development component. Topics include training as related to organizational mission and goals; budgeting; assessment; design, delivery, evaluation, and justification of training. Included are new trends in training, including distance and virtual education. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1305 - Management and Labor Relations

Credits: 3 (3 lecture). The development and structure of the labor movement including labor legislation, collective bargaining, societal impact, labor/management relationships and international aspects. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1311 - Human Relations

Credits: 3 (3 lecture). Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 2301 - Human Resources Management

Credits: 3 (3 lecture). Behavioral and legal approaches to the management of human resources in organizations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306.

HRPO 2303 - Employment Practices

Credits: 3(3 lecture). A study of employment issues including techniques for human resource forecasting, selection, and placement including interview techniques, pre-employment testing and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans.

HRPO 2306 - Benefits and Compensation

Credits: 3 (3 lecture). An overview of employee compensation systems. Topics include compensation systems, direct and indirect compensation, internal and external determination of compensation, benefits administration, managing and evaluating for effectiveness, legal and regulatory issues, pay equity, job analysis affecting job compensation and competencies. Prerequisite: Must be placed into college-level reading, writing and MATH 0312 in math.

HRPO 2307 - Organizational Behavior

Credits: 3 (3 lecture). The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts and the integration of interdisciplinary concepts from the behavioral sciences. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HUMA 1301 - Introduction to Humanities I

Credits: 3 (3 lecture). This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed at or passed appropriate coursework to qualify for college-level reading and college-level writing requirements.

HUMA 1305 - Introduction to Mexican American Studies

Credits: 3 (3 lecture). This interdisciplinary survey examines the different cultural, artistic, economic, historical, political, and social aspects of the Mexican-American/Chicano/a communities. It also covers issues such as dispossession, immigration, transnationalism, and other topics that have shaped the Mexican-American experience. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must qualify to take college-level reading and writing OR take INRW 0420 (or GUST 0349 and ENGL 0310) as a corequisite.

HUMA 1311 - Mexican American Fine Arts Appreciation

Credits: 3 (3 lecture). This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, drama, and dance) and the ways in which they express the values of the Mexican-American/Chicano/a experience. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Engl. 0310/0349, GUST 0342

HUMA 2319 - American Minority Studies

Credits: 3 (3 lecture). This interdisciplinary survey examines the diverse cultural, artistic, economic, historical, political, and social aspects of American minority communities. Topics may include race/ethnicity, gender, socioeconomic class, sexual orientation, national origin, age, disability, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HUMA 2323 - World Cultures

Credits: 3 (3 lecture). This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HYDR 1345 - Hydraulics and Pneumatics

Credits: 3 (2 lecture, 2 lab). Discussion of the fundamentals of hydraulics and pneumatics, components of each system and the operations, maintenance, and analysis of each system. Prerequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1191 - Special Topics in International Business

Credits: 1 (1 lecture). This course prepares students to sit for the Certified Global Business Professional (CGBP) credential exam. The CGBP designation is recognized internationally as a professional credential for people who work in all fields related to international trade. This course must be taken in the last semester of any International Business program and it was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1291 - Special Topics in International Business

Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. (This course substitutes for IBUS 2280.) Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math. .

IBUS 1300 - Global Logistics Management

Credits: 3 (3 lecture). Global logistics, management processes, procedures, and regulations used in transportation, physical distribution, warehousing, inventory control, materials handling, packaging, plant and warehouse location, risk management, customer service, and networks for logistics, suppliers, and information. Includes decision making and case resolution techniques to solve problems and to develop logistical and information networks for supply chain management appropriate for global corporations

IBUS 1301 - Principles of Exports

Credits: 3 (3 lecture). Export management processes and procedures. Includes governmental controls and compliance, licensing of products, documentation, commercial invoices, and traffic procedures. Emphasizes human and public relations, management of personnel, finance, and accounting procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1302 - Principles of Imports

Credits: 3 (3 lecture). Practices and processes of import management operations. Includes government controls and compliance. Emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1305 - Introduction to International Business and Trade

Credits: 3 (3 lecture). The techniques for entering the international marketplace. Emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1341 - Global Supply Chain Management

Credits: 3 (3 lecture). International purchasing or sourcing. Includes the advantages and the barriers of purchasing internationally, global sourcing, procurement technology, and purchasing processes. Emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. Prerequisite: LMGT 1319; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

IBUS 1354 - International Marketing Management

Credits: 3 (3 lecture). Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing and distribution factors. Development of an international export/import marketing plan. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1370 - Economic Geography

Credits: 3 (3 lecture). A study of material management, government regulations and distribution systems throughout the world as related to economic factors regarding agriculture, manufacturing, and materials utilization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2280 - Cooperative Education - International Business / Trade / Commerce

Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. **Requires Departmental approval Prerequisite: IBUS 1305; must be placed into college-level reading, college-level writing and MATH 0312 in math. **Requires Departmental approval.

IBUS 2332 - Global Business Simulation

Credits: 3 (3 lecture). A simulation of a global environment. Students will engage in business practice and theory. The simulation may include researching foreign business cultures and importing and exporting products. Emphasizes participation in all business decisions related to running a simulated company. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2335 - International Business Law

Credits: 3 (3 lecture). A course in law as it applies to international business transactions in the global political-legal environment. Study of inter-relationships among laws of different countries and the legal effects on individuals and business organizations. Topics include agency agreements, international contracts and administrations, regulations of exports and imports, technology transfers, regional transactions, intellectual property, product liability, and legal organization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Must complete IBUS 1301 & 1302 OR IBUS 1305.

IBUS 2339 - International Banking and Trade Finance

Credits: 3 (3 lecture). A course in international monetary systems, financial markets, flow of capital, foreign exchange, and financial institutions. Topics include export-import payments and financing the preparation of letters of credit, related shipping documentation, and electronic transfers. An introduction to multinational financial decisions, such as financing foreign investment or working capital. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

IBUS 2341 - Intercultural Management

Credits: 3 (3 lecture). Cross-cultural comparisons of management and communications processes. Emphasizes cultural geographic distinctions and antecedents that affect individual, group, and organizational behavior. May include sociocultural demographics, economics, technology, political-legal issues, negotiations, and processes of decision making in the international cultural environment. Prerequisite: IBUS 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2370 - Global Issues for Enterprise

Credits: 3 (3 lecture). Global Issues in Enterprise provides an overview of the challenges and opportunities that exist in different countries for creating social enterprise organizations. Topics include: lack of resources, lack of infrastructure, differing legal systems, cultural and social taboos on certain products or means of earning a living, corruption, lack of education as well as upcoming changes such as the impact of the Internet on education in lesser developed countries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1316 - Web Design I

Credits: 3 (2 lecture, 4 lab). Instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers. Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1341 - Interface Design

Credits: 3 (2 lecture, 4 lab). Interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Prerequisites/corequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1345 - Interactive Digital Media I - Virtual Reality Introduction

Credits: credit3 (2 lecture, 4 lab). Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. Prerequisite: ARTC 1302/1325 Corequisite: IMED 1341

IMED 1359 - Writing for Digital Media

Credits: 3 (2 lecture, 4 lab). Written communication for digital media environments including professional websites or other digital content. Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

IMED 2309 - Internet Commerce

Credits: 3 (2 lecture, 4 lab). An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2313 - Project Analysis and Design

Credits: 3 (2 lecture, 4 lab). Application of the planning and production processes for digital media projects. Emphasis on copyright and other legal issues, content design and production management. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

IMED 2315 - Web Design II

Credits: 3 (2 lecture, 4 lab). Mark-up language and advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites, according to accessibility standards, cultural appearance, and legal issues.

IMED 2345 Interactive Digital Media II - Virtual Reality Intermediate

Credits: 3 (3 lecture). Instruction in the use of scripting languages to create interactive digital media applications. A study of formal, Professional, and individual uses of VR that teaches the skills and knowledge for VR Development specifically for High-Immersion. It is ideal for developers who want to learn new skills, make informed choices about career goals, and set themselves up for success with a career in VR development. Corequisite: ARTV 2345

IMED 2351 - Digital Media Programming

Credits: 3 (2 lecture, 4 lab). Advanced topics in digital media programming including custom scripts for data tracking. Emphasis on developing digital media programs customized to the client's needs. Prerequisite: IMED 1316 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2357 Interactive Digital Media III

Credits: 3 (3 lecture). Development of interactivity using advanced scripting techniques for digital media. A study of formal, professional, and individual uses of VR that teaches the skills and knowledge for VR Development specifically for Mobile 360. It is ideal for developers who want to learn new skills, make informed choices about career goals, and set themselves up for success within a career in Mobile 360 VR Development. Prerequisite: IMED 2345; Corequisite: ARTV 2345

IMED 2359 - Interactive Web Elements

Credits: 3 (2 lecture, 4 lab). Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming. Select and utilize web animation and graphic programs applicable to specified business conditions and applications, create and add animation to a website; stream a video segment to/from a website; and utilize World Wide Web Consortium (W3C) standards.

IMED 2371 - Content Management System (Joomla and WordPress)

Credits: 3 (2 lecture, 4 lab). An advanced class in Web Design that explores designing and developing server-side web pages that incorporate text, graphics, and other supporting elements using current technologies (content management systems) and authoring tools.

IMED 2388 - Internship - Digital Communication and Media / Multimedia

Credits: 3 (13 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INCR 1302 - Physics of Instrumentation

Credits: 3 (2 lecture, 2 lab). An introduction to a simple pneumatic control loop. Introduction to pressure, temperature, level, and flow transmitters and the various transducers used in the detection of changes in process variables. This course is designed to familiarize the student with the instrumentation devices utilized in industrial automation and process control environments. Prerequisite/Corequisite: ELPT 1311; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INDS 1301 - Basic Elements of Design

Credits: 3 (2 lecture, 3 lab). A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1311 - Fundamentals of Interior Design

Credits: 3 (3 lecture, 1 lab). An introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1315 - Materials, Methods and Estimating

Credits: 3 (2 lecture, 3 lab). A study of materials, methods of construction and installation, and estimating for interior design applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1319 - Technical Drawing for Interior Designers

Credits: 3 (2 lecture, 4 lab). An Introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1341 - Color Theory and Application

Credits: 3 (2 lecture, 3 lab). A study of color theory and its application to interior design. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1345 - Commercial Design I

Credits: 3 (2 lecture, 4 lab). A study of design principles applied to furniture layout and space planning for commercial interiors. Prerequisite: INDS 2313; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1349 - Fundamentals of Space Planning

Credits: 3 (2 lecture, 3 lab). The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations. Prerequisite: INDS 1301, INDS 1319 and INDS 1311 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1352 - History, Civilization, of Interiors II

Credits: 3 (3 lecture, 1 lab). A multi-cultural historical survey of design in architecture, interiors, furnishings, and decorative elements from the post-Renaissance period to present time. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1370 - History of Interiors

Credits: 3 (3 lecture, 1 lab). The course is a multi-cultural, historical survey of various styles and periods of antiquities, architecture, interiors, and furnishings with consideration of Asia, Egypt, Greece, Italy, Spain, France, post-Renaissance through the present. It offers a critical overview of the History, Civilization, of interior design, its connection to different periods and cultures, and its integral relationship with architecture and decorative arts. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2237 - Portfolio Presentation

Credits: 3 (1 lecture, 4 lab). A course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. Prerequisite: Approval of course instructor or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2264 - Practicum (or Field Experience) - Interior Design

Credits: 2 (18 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

INDS 2270 - Photoshop for Interior Design

Credits: 3 (1 lecture, 5 lab). An exploration of Adobe Photoshop and its application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2271 - Digital Presentation Methods

Credits: 2 (6 lab). An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations.

INDS 2305 - Interior Design Graphics

Credits: 3 (2 lecture, 4 lab). Skill development in computer-generated graphics and technical drawings for interior design applications. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2307 - Textiles for Interior Design

Credits: 3 (2 lecture, 3 lab). The study of interior design textiles including characteristics, care, codes, and applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2310 - Kitchen and Bath Design

Credits: 2 (2 lecture, 4 lab). The study and application of the National Kitchen and Bath Association's Guideline and Planning Standards and Safety Criteria for residential kitchens and bathrooms including Universal Design concepts. Also includes the study and selection of kitchen and bath materials, equipment and cabinetry. Computer aided kitchen and bath design software is introduced. Prerequisite: INDS 1349, INDS 2305 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2311 - Interior Environment Factors

Credits: 3 (2 lecture, 4 lab). A study of human factors affecting the interior environment, including proxemics, ergonomics, and universal design. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2313 - Residential Design I

Credits: 3 (2 lecture, 4 lab). The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Prerequisite: INDS 1311, INDS 1341, INDS 1349, INDS 2330 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2315 - Lighting for Interior Designers

Credits: 3 (2 lecture, 3 lab). Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2317 - Rendering Techniques

Credits: 3 (2 lecture, 3 lab). A study of rendering techniques for formal interior design presentation, using a variety of media. Prerequisite: INDS 2321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2321 - Presentation Drawing

Credits: 3 (2 lecture, 3 lab). An introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2325 - Professional Practices for Interior Designers

Credits: 3 (3 lecture, 1 lab). A study of business practices and procedures for interior designers, including professional ethics, project management, marketing, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2330 - Interior Design Building Systems

Credits: 3 (2 lecture, 4 lab). An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings.

INDS 2370 - Digital Presentation Methods

Credits: 2 (2 lecture, 4 lab). An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: INDS 2321

INDS 2371 - Advanced Kitchen and Bath Design

Credits: 3 (2 lecture, 4 lab). Kitchen and bath design students upon completion of this course demonstrate the knowledge of advanced approaches to their solutions including knowledge of NKBA Planning Guidelines for the kitchen and bath, and NKBA Access Planning Guidelines used in universal design projects. Upon completion students acquire mastery of solving problems, mastery of developing a concept and theme design, mastery of producing professional working documents, mastery of presenting the idea, and mastery of processing NKBA forms through development of an advanced kitchen project and an advanced bathroom project from inception to completion.

INDS 2386 - Internship - Interior Design

Credits: 3 (1 lecture, 17 external) (288 hours Work Experience). An experience external to the college for an advanced student in the specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Internship is done the final semester upon completion of the program. Consent of program advisor is required. Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306.

INDS 2405 Interior Design Graphics (Revit)

Credits: 3. (2 lecture, 4 lab). Skill development in computer-generated graphics and technical drawings for interior design applications.

INEW 1340 - ASP.NET Programming

Credits: 3 (2 lecture, 4 lab). Theory of server side web programming concepts to implement solutions for common web programming tasks. Includes Basic ASP.Net web controls, user management and authentication, state management, and development of database-driven web applications. Prerequisite: ITSE 1447 or ITSE 1430; must be placed into college-level reading, writing and math.

INEW 2332 - Comprehensive Software Project: Coding, Testing and Implementation

Credits: 3 (2 lecture, 3 lab). A comprehensive application of skills learned in previous semesters in a simulated workplace. Includes coding, testing, maintenance, and documentation of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisite: Must be placed into college-level reading, writing and math.

INEW 2434 - Advanced Web Programming

Credits: 3 (2 lecture, 4 lab). Web programming using industry-standard languages and data stores. Prerequisite: Must be placed into college-level reading, writing and math.

INEW 2438 - Advanced Java Programming

Credits: 4 (2 lecture, 4 lab). A continuation of advanced JAVA programming techniques such as servlets and advanced graphical functions. Prerequisite: ITSE 2417 or COSC 1437 and ITSE 1356; must be placed into college-level reading, writing and math.

INEW 2475 - SharePoint Administration I

Credits: 4. Plan, design, and deploy SharePoint farm. Create Web applications, site collections, libraries, content types, and workflows. Design sites. Manage SharePoint security and permissions. Configure search feature.

INEW 2476 – SharePoint Administration II

Credits: 4. A continuation of SharePoint technology: administer SharePoint farm, security, and performance. Create new site, content types, and list & library templates. Develop Workflows. Design Document Set. Administer SharePoint with SharePoint Designer.

INMT 1305 Introduction to Industrial Maintenance

Credits: 3 (2 lecture, 3 lab). Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out/tag-out.

INMT 1311 - Computer Integrated Manufacturing

Credits: 3 (2 lecture, 3 lab). A study of the principles and application of computer integrated manufacturing. Employs all aspects of a system including but not limited to integration of material handling, manufacturing, and computer hardware and programming.

Prerequisite: TECM 1301, ITSC 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1317 - Industrial Automation

Credits: 3 (2 lecture, 3 lab). A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1319 - Manufacturing Processes

Credits: 3. (1 lecture, 5 lab). Exploration of a variety of methods used in manufacturing. Theory and application of processes including but not limited to metal forming, welding, machining, heat treating, plating, assembly procedures, and process control considerations, casting and injection molding.

INMT 1343 - Computer Aided Design / Computer Aided Manufacturing (CAD/CAM)

Credits: 3 (2 lecture, 3 lab). Computer-assisted applications in integrating engineering graphics and manufacturing. Emphasis on the conversion of a working drawing using computer aided design/computer aided manufacturing (CAD/CAM) software and related input and output devices to translate into machine code. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Prerequisite/Corequisite: ITSC 1309.

INMT 1345 - Computer Numerical Controls

Credits: 3 (2 lecture, 2 lab). A study of numerical controlled machine operations. Emphasis on standard and computer numerical controlled (CNC) procedures for planning, preparing, and operating a computer-assisted program.

Prerequisites/Corequisites: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INMT 1370 - Lean Manufacturing - Manufacturing Engineering

Credits: 3 (2 lecture, 3 lab). Study of principles of lean manufacturing - manufacturing engineering; including a systematic approach to reducing costs and lead-time. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1371 - Materials and Applications

Credits: 3 (2 lecture, 3 lab). Introduction to metallic and non-metallic materials assessment and characterization. Examination of the selection and applications of materials, and processing characteristics on materials properties. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1372 - Quality and Assessment

Credits: 3 (2 lecture, 3 lab). Introduction to statistical tools and techniques required for solving industrial problems and for the continuous improvement of processes. The laboratory component provides hands-on experience with modern metrology tools and techniques. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1373 - Machine Shop Logistics

Credits: 3 (3 lecture). Study of concepts, issues, and techniques used to plan, analyze, and maximize the productivity of machine shop logistics; examination of key production planning decision making areas such as inventories, layout, capacity, and supply chain management. Particular interest will be the study of techniques and technologies for managing and optimizing the materials supply chain in a manufacturing domain. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 2370 - Project Management

Credits: 3 (3 lecture). Provide principles of project management directed toward supervisory and project management duties and responsibilities in technology based organizations and the methods required to fulfill these functions. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INRW 0100 - INRW 0410 Companion Course

Credits: 1 (1 lecture). This course is a combined 1 hour lecture/ lab performance-based companion course designed to develop student's critical reading and academic writing skills. Students who enroll in this course are required to enroll in INRW 0410. INRW 0100 is a companion course to INRW 0410. The content of this course is based upon the needs of the accompanying INRW 0410 course. The focus is to prepare, support, and enable students to successfully perform in INRW 0410. The course integrates complementary reading and writing assignments with special emphasis given to reasoning and responding to issues arising from class readings. Students who successfully complete this course and INRW 0410 will qualify to take INRW 0420.

INRW 0300 - Integrated Reading & Writing Course for ENGL 1301

Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301: Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

INRW 0301 Integrated Reading and Writing

Credits: 3 (3 lecture). A corequisite course in support of History 1301: A survey of the social, political, economic, cultural, and intellectual history of the United States from the pre-Columbian era to the Civil War/Reconstruction period. United States History I includes the study of pre-Columbian, colonial, revolutionary, early national, slavery and sectionalism, and the Civil War/Reconstruction eras. Themes that may be addressed in United States History I include: American settlement and diversity, American culture, religion, civil and human rights, technological change, economic change, immigration and migration, and creation of the federal government.

TSI Scores for College Level Reading and Writing :
WRITE: 310-349 and ABEWD:4-6 AND WS:5-8 (i.e. and passing reading) OR Write: 340-390 and WS:4-8 (i.e. and passing reading) READ 351-390

INRW 0410 - Integrated Read & Write I

Credits: 4 (3 lecture, 2 lab). This course is a combined 3 hour lecture/ 2 hour lab (1 hour technology lab & 1 hour writing lab), performance-based course designed to develop student's critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required. Students who successfully complete this course will qualify to take INRW 0420.

INRW 0420 - Integrated Read and Write II

Credits: 4 (3 lecture, 2 lab). This course is a combined 3 hour lecture/ 2 hour lab (1 hour technology lab & 1 hour writing lab), performance-based course designed to develop student's critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required.

INSR 1191 - Special Topics in Insurance

Credits: 1. (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

INSR 1205 - Personal Insurance

Credits: 2 (2 lecture). Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Prerequisite: None

INSR 1209 - Principles of Insurance

Credits: 2 (2 lecture). The overall concepts of the insurance industries based upon the profile of each of the industry types, organizational structures, and careers in the insurance industry. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Prerequisite: None

INSR 1217 - Insurance Customer Service Representative

Credits: 2 (2 lecture). Fundamental front-line customer service support for the delivery of information and quality service. Includes information about general insurance policies, terminology, and customer service procedures. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Prerequisite: None

INSR 1301 - Commercial Insurance

Credits: 3 (3 lecture). Introduction to business loss exposures and the operation of the insurance policies available for these exposures including property, business income, crime, marine, auto, and other government programs. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Prerequisite: None.

INSR 2340 - Multiline Insurance Sales and Marketing

Credits: 3 (3 lecture). Prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowner's coverage. Includes information related to sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities.

INTC 1343 - Application of Industrial Automatic Controls

Credits: 3 (3 lecture). Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument drawings. Includes connection and troubleshooting of loops. Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 1356 - Instrumentation Calibration

Credits: 3 (2 lecture, 4 lab). Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners. Prerequisite: Must be placed into college-level reading, writing and math.

INTC 1441 - Principles of Automatic Control

Credits: 4 (3 lecture, 3 lab). Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations. Prerequisite: CETT 1403, INTC 1312, INTC 1456, MATH 1314 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 2330 - Instrumentation Systems Troubleshooting

Credits: 3 (2 lecture, 4 lab). Techniques for troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 2336 - Distributed Control and Programmable Logic

Credits: 3 (2 lecture, 2 lab). An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Prerequisite: INTC 1343 or Department Approval; must be placed into college-level reading, writing and math.

ITAI 1370 Artificial Intelligence (A.I.) History, Theory, and Platforms

Credits: 3 (2 lecture, 4 lab). An overview of the history, theories, and platforms of Artificial Intelligence (A.I.), which are the core areas of A.I. - machine learning, neural networks, robotics, computer vision, natural language processing, open sources software, and algorithm development. Survey of different computer hardware, networking, cloud distribution, operating systems, and software for A.I. Practice the setup of sample A.I. platforms used to train various neural networks to learn. Prerequisite: MATH 1314.

ITAI 1371 Introduction to Machine Learning

Credits: 3 (2 lecture, 4 lab). This introductory course gives an overview of many concepts, techniques, and algorithms in machine learning, beginning with topics such as classification and linear regression and ending up with solutions for single task deployment (like vacuum a room). The course will give the student the basic ideas and intuition behind modern machine learning methods as well as a bit more formal understanding of how, why, and when they work. The underlying theme in the course is a statistical inference as it provides the foundation for most of the methods covered. Prerequisite: MATH 1314.

ITAI 1372 Artificial Intelligence (A.I.) in Cybersecurity

Credits: 3 (2 lecture, 4 lab). This introductory course gives an overview of the two different types of concepts for A.I. in cybersecurity. The first is how to use A.I. and Machine Learning to understand intrusion detection. Students will survey the current uses of how A.I. is being used to make cybersecurity systems and processes more rigorous. Survey the most effective neural networks that have learned defensive strategies from famous hacks. The second the A.I. in cybersecurity is the use of cybersecurity to protect A.I. infrastructures. A.I. utilizes some of the most sophisticated equipment, software, and networks and acts as a magnet for sophisticated hacking. Prerequisites: MATH 1314, ITA1 1370, ITAI 1371.

ITAI 1378 Computer Vision for Artificial Intelligence (A.I.)

Credits: 3 (2 lecture, 4 lab). This introductory course gives an overview of computer vision, which is the ability to use computer-driven cameras to see through multiple lenses, how to use depth sensors for 3D depth mapping and add sophisticated sensors to provide orientation, location, lighting and eliciting specific objects. Add A.I. and convert computer vision from photo concentration into actual brain-like seeing, identification, understanding, and recognition. In this course, students will learn the basics of computer vision and its fundamental platforms (hardware and software). Additionally, learn the latest information about all types of cameras (high speed, night vision, 360-degree, Lidar sensors, high resolution, 3D and stereo vision, and light capture.) And how specific software, sensors, and Machine Learning processes to aid in the development of image understanding from a vast amount of data. Prerequisites: MATH 1314, ITA1 1371, ITAI 1372.

ITAI 2275 Cooperative Education - Artificial Intelligence (A.I.)

Credits: 2 (1 lecture, 10 external). This is an advanced course that provides students with interesting work/study in the field of Artificial Intelligence in a real-world environment. The environment may range from Medical / Bio-Medical, Oil and Gas Control/Monitoring Systems, Aerospace, Retail/Consumer Marketing Programs to Census Bureau Data Science applications that merge with voting demographics. The goal of the course is to help students learn how this industry functions and through the opportunity to work side by side with experts in A.I., Machine Learning, IIOT, Blockchain, Cybersecurity, Natural Language Processing, or Deep Learning and/or Robotics. Prerequisites: MATH 1314, ITA1 1370, ITAI 1371, ITAI 1372, ITAI 2373, ITSE 1346.

ITAI 2277 Artificial Intelligence (A.I.)

Resources & References

Credits: 2 (2 lecture, 4 lab). This is an advanced course that provides students with a culminating experience to create a final GitHub that features all Jupyter Notebooks, including different aspects of work, incremental work in progress, and a final product where appropriate. The goal of the course is to help students create a portfolio of a complete bibliography of all resources used (online tutorials, YouTube video, best of the best instructional PDF's and relevant reading material.) Evaluate materials, practices, and submit resources that utilize the outside materials, simulation work, video lab reports, and final presentations. Prerequisites: MATH 1314, ITA1 1370, ITAI 1371, ITAI 1372, ITAI 2373, ITAI 2373.

ITAI 2372 Artificial Intelligence (A.I.)

Applications & Case Histories

Credits: 3 (2 lecture, 4 lab). This is an intermediate course on the implications of intelligent technologies, A.I., and their impact on society and culture. This course will allow students to investigate Blockchain, essentially the A.I. of Trust for Business and industry, comprehend why philosophy is essential to understanding A.I., and the course focus will be on the New Moon to Mars National Initiative and the need for talent in areas of Artificial Intelligence. Prerequisites: MATH 1314, ITAI 1370, ITA1 1371, ITAI 1372.

ITAI 2373 Natural Language Processing (NLP)

Credits: 3 (2 lecture, 4 lab). This is an intermediate course on Natural Language Processing (NLP), which is a subfield of linguistics. Computer science, information engineering, and artificial intelligence (A.I.) concerned with the interactions between computers and human (natural) language. This course will give students an overview of the most critical pillars in A.I. and one of the most exciting and challenging areas of A.I. due to the challenges of language incorporate near linguistics, continuous processing, sound processing, and massive ambiguities of context/semantics/meaning. Additionally, studying A.I. such as Siri, Alexa, and Mycroft in-depth and the best-known NLP system that ranges from Hanson Robotics to Online Customer Service Systems. Prerequisites: MATH 1314, ITAI 1370, ITA1 1371, ITAI 1372.

ITAI 2374 Robot Operating System & Platforms in Artificial Intelligence (A.I.)

Credits: 3 (2 lecture, 4 lab). This is an intermediate course on the use, methods, and handling of different A.I. systems while utilizing the Robot Operating System (ROS). This course will give students an overview of the application and configurations of Artificial Intelligence Platforms for small and commercial grade robots. ROS is a well-known operating system used primarily for efficiency in configuring sensors used in robots that allow for documentation and troubleshooting A.I. Systems. Prerequisites: MATH 1314, ITAI 1370, ITA1 1371, ITAI 1372, ITSC 1316.

ITAI 2376 Deep Learning in Artificial Intelligence (A.I.)

Credits: 3 (2 lecture, 4 lab). This is an intermediate course on the different deep learning methods with specific emphasis on control systems and autonomous driving and deeper learning applications. The course will allow students to use a variety of neural network devices that speed the use of Deep Learning on smaller practice platforms as well as participate in on-line competitions like MIT's Deep Traffic. Prerequisites: MATH 1314, ITA1 1370, ITAI 1371, ITAI 1372, ITAI 2373, ITSE 1346.

ITAI 2377 Data Science in Artificial Intelligence (A.I)

Credits: 3 (2 lecture, 4 lab). An advanced course on the progression from data to information from the 50's up to the present with different types of databases, planning for data capture/curation, Machine Learning as a catalyst to a massively changing paradigm, dynamic data, highly distributed information, and storage systems. The course will give the student the intuition behind data integrity and how to establish viable checkpoints within the data system to troubleshoot performance and errors. Additionally, students will learn to take disparate data types and fit them into newer structures and take average data and create great information in an era of high precision data and sheer insight performance using specialized hardware and software. Prerequisites: MATH 1314, ITA1 1370, ITAI 1371, ITAI 1372, ITSE 1346.

ITCC 1414 - CCNA 1: Introduction to Networks

Credits: 4 (2 lecture, 4 lab). This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Configure a small network using basic security; perform basic configuration on routers and switches; implement IP addressing schemes. Prerequisites: Must be placed into college-level reading, writing and math.

ITCC 1444 - CCNA 2: Switching, Routing, and Wireless Essentials

Credits: 4 (2 lecture, 4 lab) Describes the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts; provides an in-depth understanding of how routers and switches operate and are implemented in the LAN environment. Configure, secure, and maintain routers and switches; resolve common issues with routing protocols, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks; configure WLANs. WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Configure and troubleshoot network devices Resolve common issues with data link protocols; resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks; implement virtual private network (VPN) operations in a complex network; implement security best practices. Prerequisites: ITCC 1414.

ITCC 2420 - CCNA 3: Enterprise Networking, Security, and Automation

Credits: 4 (2 lecture, 4 lab) Describes the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. Emphasizes network security concepts and introduces network virtualization and automation. Configure advanced

routing and switching protocols; resolve common issues with routing and switching protocols; identify threats and enhance network security; implement IPv4 Access Control Lists (ACLs); configure Network Address Translation (NAT) services; explain virtualization, software defined networking, and automation. WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Configure and troubleshoot network devices. Resolve common issues with data link protocols; resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks; implement virtual private network (VPN) operations in a complex network; implement security best practices. Prerequisites: ITCC 1414, ITCC 1444.

ITCC 2441 - CCNA Security

Credits: 4 (2 Lecture, 4 Lab). Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

ITCC 2454 - CCNP R & S ROUTE

Credits: 4 (3 lecture, 4 lab). How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers.

ITCC 2455 - CCNP R & S SWITCH

Credits: 4 (3 lecture, 4lab). How to implement, monitor, and maintain switching in converged enterprise campus networks. How to plan, configure, and verify the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks.

ITCC 2456 - CCNP R & S TSHOOT

Credits: 4 (3 Lecture, 4 Lab). How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches.

ITMT 1305 - Configuring Advanced Window Server Operating Systems

Credits: 3 (2 lecture, 4 lab). Advanced configuration tasks required to deploy, manage, and maintain a Windows Server operating system infrastructure. Additional topics include fault tolerance, certificate services, and identity federation. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 1350 - Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure Network Services

Credits: 3 (2 lecture, 4 lab). Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. Prerequisite: ITMT 1300; must be placed into college-level reading, writing and math.

ITMT 1357 - Administering a Windows Server Operating System

Credits: 3 (2 lecture, 4 lab). A study of administrative tasks needed to maintain a Windows Server operating system including user and group management, network assess and data security. Topics include how to implement, configure and manage Group Policy infrastructure, Group Policy objects (GPOs) using links, security groups, WMI filters, loopback processing, preference targeting and troubleshooting policy application. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 1358 - Windows Client Operating System

Credits: 3 (2 lecture, 4 lab). A study of Windows operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hand-on experience. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 1371 - Windows 7 Configuration

Credits: 3 (2 lecture, 4 lab). A study of Windows 7 operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hands-on experience. Prerequisite: ITNW 1358: Network+ or ITNW 1425 or Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITMT 2301 - Windows Server 2008 Network Infrastructure Configuration

Credits: 3 (2 lecture, 4 lab). A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security. Prerequisite: ITMT 1371, ITMT 2302 (70-640); must be placed into college-level reading, writing and math.

ITMT 2302 - Windows Server 2008 Active Directory Configuration

Credits: 3 (2 lecture, 4 lab). A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. Prerequisite: ITMT 1371; must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITMT 2304 - Implementing an Advanced Server Infrastructure

Credits: 3 (2 lecture, 4 lab). This course covers managing and maintaining a server infrastructure, planning and implementing a highly available enterprise infrastructure, planning and implementing a server virtualization infrastructure, and designing and implementing identity and access solutions.

Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2305 - Designing and Implementing a Server Infrastructure

Credits: 3 (2 lecture, 4 lab). This course covers planning and deploying a server infrastructure; designing and implementing network infrastructure services; designing and implementing network access services and Active Directory infrastructure. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2403 - Administering a Microsoft SQL Server Database

Credits: 3 (2 lecture, 4 lab). In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITNW 1308 - Implementing & Supporting Client Operating Systems

Credits: 3 (2 Lecture, 4 lab). The fundamentals of managing and configuring network clients. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1313 - Computer Virtualization

Credits: 3 (2 lecture, 4 lab). Implement and support virtualization of clients of servers in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1358 - Network+

Credits: 3 (2 lecture, 4 lab). Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTIA) Network+ certification exam. Prerequisite: ITNW 1425 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math. Corequisite: MATH 1314

ITNW 1380 - Cooperative Education - Computer Systems Networking & Telecommunications

Credits: 3. (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

ITNW 1425 - Fundamentals of Networking Technologies

Credits: 4 (2 lecture, 4 lab). Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Prerequisite: College ready for English and math (i.e. no remediation needed) and high school computer literacy or equivalent.

ITNW 1492 - Special Topics in Computer Systems Networking and Telecommunications

Credits: 4 (4 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to technology or occupation and relevant to the professional development of the student. Prerequisite: Department Approval

ITNW 2335 - Network Troubleshooting and Support

Credits: 3 (2 Lecture, 4 ab). Troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software. Prerequisite: ITMT 2301 with a minimum grade of C or better or ITCC 2408 with a minimum grade of C or better or ITSY 2300 with a minimum grade of C or better. Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in mat Corequisite: Department Approval

ITSC 1301 - Introduction to Computers

Credits: 3 (2 lecture, 2 lab). Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1307 - UNIX Operating System I

Credits: 3 (2 lecture, 4 lab). A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisite/Corequisite: COSC 1436 or Department Approval; must be placed into college-level reading, writing and math.

ITSC 1309 - Integrated Software Applications I

Credits: 3 (2 lecture, 2 lab). Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Emphasis is on developing end-user proficiency skills for the workplace. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1316 - LINUX Installation and Configuration

Credits: 3 (2 lecture, 4 lab). Open-source Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application development. Emphasizes hands-on setup, administration, and management of Linux. Also covers maintaining and securing reliable Linux systems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITSC 1319 - Internet / Web Page Development

Credits: 3 (2 lecture, 4 lab). Instruction in the use of Internet concepts and the introduction to web page design and web site development. Prerequisite: BCIS 1405 or ITSC 1309 or ITSC 1301; must be placed into college-level reading, writing and math.

ITSC 1321 - Intermediate PC Operating Systems

Credits: 3 (2 lecture, 4 lab). Continued study in advanced installation and configuration troubleshooting, advanced file management, memory and storage management. Update peripheral device drivers, and use of utilities to increase system performance. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSC 1358 - UNIX System Administration I

Credits: 4 (2 lecture, 4 lab). Provide new system administrators the basics of administering UNIX workstations. Students will perform basic system administration tasks, such as installing a standalone system, adding users, backing up and restoring file systems, and adding new printer support. Emphasis on the procedures needed to perform these system administration tasks. Introduces the concept of the system and disk management. Prerequisite: ITSC 1307; must be placed into college-level reading, writing and math.

ITSC 1380 - Cooperative Education - Computer and Information Sciences, General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSC 1391 Special Topics in Computer and Information Sciences, General (Linux OS -Red Hat)

Credits: 3 (2 lecture, 4 lab). The Internet of Things (IoT) describes a growing industry of digital technology being harnessed to the Internet in ways that will improve the lives of every person on this planet. We can only guess at the number and types of jobs it will create. Maybe you would like a career in the IoT. Prerequisite: ITNW 1425

ITSC 1425 - Personal Computer Hardware

Credits: 4 (2 lecture, 4 lab). Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting. Prerequisite: Must be placed into college-level reading, writing and math.

ITSC 1447 - UNIX System Administration II

Credits: 4 (2 lecture, 4 lab). Provides students with the necessary skills to administer UNIX workstations in a network environment. System security features will be presented. Prerequisite: ITSC 1458; must be placed into college-level reading, writing and math.

ITSC 1458 - UNIX System Administration I

Credits: 4 (2 lecture, 4 lab). Basic UNIX administration. Includes installing a standalone system, adding users, backing up and restoring file systems, and adding printer support. Perform system administration tasks. Introduces the concept of system and disk management.

ITSC 1491 Special Topics in Computer and Information Sciences, General

Credits: 4 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITSC 2339 - Personal Computer Help Desk Support

Credits: 3 (2 lecture, 4 lab). Diagnosis and solution of user hardware and software related problems with on-the-job projects in either a Help Desk lab or in short-term assignments for local business. Topics include planning, diagnostic techniques, problem resolution, call tracking, staffing, training, knowledge engineering, work orders, service level agreements, metrics, telephony, scheduling, management issues, customer expectation, selling your services.

ITSC 2425 - Advanced Linux

Credits: 4 (2 lecture, 4 lab). Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services. Prerequisite: ITSC 1458, ITSC 1447

ITSE 1345 - Introduction to Oracle SQL

Credits: 3 (2 lecture, 4 lab). An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). Prerequisite: COSC 1436, ENGL 1301, and MATH 1314; must be placed into college-level reading, writing and math.

ITSE 1346 - Database Theory and Design

Credits: 3 (2 lecture, 4 lab). Introduction to the analysis and utilization of data requirements and organization into normalized tables using the four normal forms of database design. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSE 1380 - Cooperative Education - Computer Programming/Programmer, General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSE 1402 - Computer Programming-Swift I

Credits: 4 (2 lecture, 4 lab). Introduction to computer programming with emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Prerequisite: Must be placed into college-level reading, writing and math.

ITSE 1411 Beginning Web Programming

Credits: 4 (2 lecture, 4 lab). Skills development in web programming including mark-up and scripting languages.

ITSE 1456 - Extensible Markup Language (XML)

Credits: 4 (2 lecture, 4 lab). Introduction of skills and practices related to Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-formed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Prerequisite: BCIS 1405, ITSC 1309, or ITSE 1301; must be placed into college-level reading, writing and math.

ITSE 2333 - Implementing a Database on Microsoft SQL Server

Credits: 3 (2 lecture, 4 lab). Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system.

ITSE 2343 - Advanced Mobile Programming

Credits: 3 (2 lecture, 4 lab). Programming for mobile devices including file access methods, data structures, modular programming, program testing and documentation. Design, write, and document mobile programs. Prerequisite: ITSE 2005, ITSE 2305/2405

ITSE 2402 - Intermediate Web Programming

Credits: 4 (2 lecture, 4 lab). Server-side and client-side techniques for Web development.

ITSE 2410 - iOS Application Programming

Credits: 4. (2 lecture, 4 lab). Course explores developing applications for iOS devices. Will include the current iOS programming language, use of the iOS SDK environment, and current programming issues in the iOS environment. Complete the procedures to become a registered Apple iOS developer. Design interfaces for iOS applications. Produce concept documentation. Create iOS applications in native SDK. Deploy applications for various iOS devices.

ITSE 2453 - Advanced C# Programming

Credits: 4 (2 lecture, 4 lab). Continuation of C# programming using advanced features of the .NET Framework Class Library. Prerequisite: ITSE 1430 and ITSE 1356; must be placed into college-level reading, writing and math.

ITSE 2456 - Oracle Database Administration I

Credits: 4 (2 lecture, 4 lab). Fundamentals of the tasks and functions required of a database administrator using Oracle. Prerequisite: ITSE 1345; must be placed into college-level reading, writing and math. Corequisite: ITSC 1307

ITSE 2458 - Oracle Database Administration II

Credits: 4 (2 lecture, 4 lab). A continuation of Oracle Database Administration I. Topics includes recovery procedures, logical backups, standby database capabilities, and performance tuning of the Oracle Server. Common performance problems and the use of diagnostic tools to troubleshoot and optimize throughout will be discussed. Prerequisite: ITSE 2456; must be placed into college-level reading, writing and math.

ITSE 2471 - Mobile Application Programming I

Credits: 4. (2 lecture, 4 lab). Install and configure development tools, identify and follow different phase of mobile application development life cycle, use appropriate programming language and API to develop apps for one or more mobile device platforms, and test and deploy apps using emulator and physical devices.

ITSE 2472 - Mobile Application Programming II

Credits: 4. (2 lecture, 4 lab). Develop mobile apps focusing on features, such as Location Services API, SQLite for data intensive problems, Connectivity for the Cloud, Media and Camera for multimedia experience, and Voice Typing, Speech, and multi-touch for input.

ITSE 2473 Cloud Computing I- Solutions Architect

Credits: 4 (2 lecture, 4 lab). The course covers the fundamentals of building IT infrastructure on cloud platforms (e.g. Amazon AWS), including identifying cloud-based services and service types; designing and implementing virtual private clouds including instances, subnets, gateways, and end-points; leveraging cloud services for scalability, reliability, and high availability; securing cloud environments with different security layers; and exploring how to increase performance and reduce cost.

ITSE 2474 Cloud Computing I- Developer

Credits: 4 (2 lecture, 4 lab). Understand and Identify Cloud Computing Architecture and services; design and develop cloud based applications, web services, micro services, and Web APIs; program for the cloud using API calls; build and deploy server-side applications for the cloud.

ITSW 2334 - Advanced Spreadsheets

Credits: 3 (2 lecture, 2 lab). Advanced techniques for developing and modifying spreadsheets. Includes macros and data analysis functions. Prerequisite: ITSC 1309 or BCIS 1405; must be placed into college-level reading, writing and math.

ITSY 1342 - Information Technology Security

Credits: 3 (2 lecture, 4 lab). Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Prerequisite: ITMT 2301; must be placed into college-level reading, writing and math.

ITSY 1372 – Cybersecurity Challenge

Credits: 3 (2 lecture, 4lab). The course offers engaging, measurable, and scalable methods of learning to enlist a new generation of cybersecurity professionals. Students are able to apply skills through solving complex challenges that scale in difficulty, while utilizing harden systems techniques and practices. The challenges provide hands-on and current experiences that help students become proficient with cybersecurity skills, cryptology, hacker/ cyberattacks testing, and security protection. Perquisite: ITSC 1307, ITNW 1425, ITNW 1313, ITSY 1342, ITSY 2330, ITSY 2401, ITSY 2443, ITSY 1491

ITSY 1491 - Special Topics in Information Technology / Security

Credits: 4 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the information security technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITSY 2330 - Intrusion Detection

Credits: 3 (2 lecture, 4 lab). Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team. Prerequisite: ITSY 1342; must be placed into college-level reading, writing and math.

ITSY 2401 - Firewalls and Network Security

Credits: 4 (2 lecture, 4 lab). Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities.

ITSY 2443 - Computer System Forensics

Credits: 4 (3 lecture, 3 lab). In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Prerequisite: ITCC 1401; must be placed into college-level reading, writing and math.

ITXR 2375 Advanced XR Design

Credits: 3 (2 lecture, 4 lab) This advanced course gives an overview of the XR design production pipeline including ergonomics, user testing, and interface design, while focusing in High-Immersion development. This course will also give the student the opportunity to begin creating a portfolio for successful self-promotion and employment in the industry. Prerequisite: IMED 2375.

JAPN 1411 - Beginning Japanese I

Credits: 4 (3 lecture, 2 lab). Introduction to Japanese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite)

JAPN 1412 - Beginning Japanese II

Credits: 4 (3 lecture, 2 lab). Continuation of JAPN 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: JAPN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Japanese within the last two years. Must be placed into college - level reading (or take GUST 0342 as a corequisite) and be placed into college level writing (or take ENGL 0310/0349 as a corequisite).

KINE 1100 - Golf

Credits: 1 (1 lecture, 2 activity). The student will learn the basic fundamental skills of golf and become familiar with the basic rules, tournament play and terminology involved with beginning golf.

KINE 1103 - Yoga

Credits: 1 (1 lecture, 3 activity). This class will acquaint the student with history, development, branches and practices of yoga with emphasis on physical practice of individual postures, sets of postures, breathing techniques, meditation and relaxation techniques.

KINE 1105 - Jogging

Credits: 1 (1 lecture, 2 activity). The student will learn proper and safe walking/jogging/running techniques to begin a cardiovascular training program and will learn the basic physiological principles for distance walking/jogging/running.

KINE 1146 - Beginning Bowling

Credits: 1 (1 lecture, 2 activity). This course includes everything the beginning bowler needs to know about the game of bowling; rules, regulations, and techniques. In addition to the basics of bowling, this course attempts to give each student a better understanding of the elements involved in the game and enhance his or her enjoyment and performance of the number one indoor participant lifetime sport in the United States.

KINE 1164 - Introduction to Physical Fitness and Wellness

Credits: 1 (1 lecture, 2 activity). This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training.

KINE 1301 - Foundations of Kinesiology

Credits: 3 (1 lecture, 2 lab). The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities.

KINE 1304 - Personal/Community Health

Credits: 3 (3 lecture). This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being.

KINE 1306 - First Aid

Credits: 3 (3 lecture). Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may enable the student to receive a certificate from a nationally recognized agency

KINE 1338 - Concepts of Physical Fitness

Credits: 3(3 lecture). This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs.

KINE 1346 - Drug Use & Abuse

Credits: 3 (3 lecture). Study of the use, misuse and abuse of drugs and other harmful substances in today's society. Physiological, sociological, pharmacological and psychological factors will be emphasized.

KINE 2111 - Weight Training & Conditioning

Credits: 1 (1 lecture, 2 activity). Basic fundamental skills and techniques of a strength and conditioning program. Emphasis is placed on correct procedures and use of equipment.

KINE 2113 - Individual Fitness Training

Credits: 1 (1 lecture, 2 activity). Provides opportunity to accomplish fitness objectives at own pace. Some knowledge of concepts of fitness and weight training recommended.

KINE 2115 - Weight Training and Conditioning II

Credits: 1 (1 lecture, 2 activity). Emphasis is placed on acquiring advanced training techniques for improving muscular strength, including competitive lifting skills. Prerequisite: Weight training experience is required.

KINE 2356 - Care and Prevention of Athletic Injuries

Credits: 3. (3 lecture) Prevention and care of athletic injuries with emphasis on qualities of a good athletic trainer, avoiding accidents and injuries, recognizing signs and symptoms of specific sports injuries and conditions, immediate and long-term care of injuries, and administration procedures in athletic training.

KORE 1411 - Beginning Korean I

Credits: 4 (3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KORE 1412 - Beginning Korean II

Credits: 4 (3 lecture, 2 lab). Continuation of fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

LANG 1311 - Beginning Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1312 - Beginning Foreign Language II

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 1411 - Beginning Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1412 - Beginning Foreign Language II

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 1511 - Beginning Foreign Language I

Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1512 - Beginning Foreign Language II

Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 2311 - Intermediate Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2312 - Intermediate Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LANG 2411 - Intermediate Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2412 - Intermediate Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LGLA 1303 - Legal Research

Credits: 3 (3 lecture). This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, computer assisted legal research, citation forms, briefs, and court opinion discussions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1305 - Legal Writing

Credits: 3 (3 lecture). This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles. Prerequisite: LGLA 1303; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1344 - Texas Civil Litigation

Credits: 3 (3 lecture). Fundamental concepts and procedures of Texas civil litigation with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1345 - Civil Litigation

Credits: 3 (3 lecture). This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post-trial phases of litigation. Prerequisite: LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1351 - Contracts

Credits: 3 (3 lecture). This course presents fundamental concepts of contract law with emphasis on the paralegal's role. Topics include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1353 - Wills, Trusts and Probate Administration

Credits: 3 (3 lecture). This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1355 - Family Law

Credits: 3 (3 lecture). This course presents fundamental concepts of family law with emphasis on the paralegal role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1370 - Pro Doc for Paralegals

Credits: 3 (3 lecture). The Pro Doc class in Paralegal Technology will include instruction using the automated legal document assembly computer software. The software generates a finished work product for Texas Legal Practitioners. Pro Doc certification is also available for students after passing an exam offered by Pro Doc. Prerequisite: LGLA 1303; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1380 - Cooperative Education - Legal Assistant / Paralegal

Credits: 3 (1 lecture, 19 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303 and LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2303 - Torts and Personal Injury Law

Credits: 3 (3 lecture). This course presents fundamental concepts of tort law with emphasis on the paralegal role. Topics include intentional torts, negligence, and strict liability. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2307 - Law Office Management

Credits: 3 (3 lecture). This course presents the fundamentals of principles and structure of management, administration, and substantive systems in the law office including law practice technology as applied to paralegals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2309 - Real Property

Credits: 3 (3 lecture). This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2311 - Business Organizations

Credits: 3 (3 lecture). This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations, and other emerging business entities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2313 - Criminal Law and Procedure

Credits: 3 (3 lecture). This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2315 - Oil and Gas Law

Credits: 3 (3 lecture). This course presents fundamental concepts of oil and gas law including the relationship between landowners and oil and gas operators, government regulation, and documents used in the industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2381 - Cooperative Education - Legal Assistant / Paralegal

Credits: 3 (1 lecture, 19 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303, LGLA 1305, LGLA 1344, LGLA 1345, or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LMGT 1170 - Certified Logistics Associate

Credits: 1 (1 lecture, 1 lab). This course satisfies the requirements for a student to take the national Manufacturing Skill Standards Council (MSSC) test for certification as a Certified Logistics Associate. Major topics include understanding the life cycle of global chain logistics, the logistics environment and familiarization with different material handling equipment, introduction to safety principles and safe equipment handling, quality control principles, workplace communications, teamwork and problem solving. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1193 - Special Topics in Logistics and Materials Management

Credits: 1 (1 lecture). An overview of Workplace Essentials, Supply Chain Management, Transportation Management, Warehouse Management and Computer Systems utilizing SAP ERP. Prerequisites: Students must be in the last semester of completing the requirements for either a certificate or an AAS degree in Logistics and Global Supply Chain Management. Students with a background in Logistics must have at least one year experience in the field Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1271 - Certified Logistics Technician

Credits: 2 (2 lecture). Students who have successfully completed the first level logistics associate course are prepared for the second level certification. The focus of the course is on product receiving, storage order processing, packaging and shipment, inventory control, evaluation of transportation modes and dispatch and tracking. This second course is a second level certification from the Manufacturing Skills Standards Council, (MSSC). These are industry led nationally validated skills standards. The assessment for certification will be at the conclusion of the course. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1319 - Introduction to Business Logistics

Credits: 3 (3 lecture). A systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing, and materials handling. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0306 in math.

LMGT 1321 - Introduction to Materials Handling

Credits: 3 (3 lecture). Introduces the concepts and principles of materials management to include inventory control and forecasting activities. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1323 - Domestic and International Transportation Management

Credits: 3 (3 lecture). An overview of the principles and practices of transportation and its role in the distribution process. Emphasis on the physical transportation systems involved in the United States as well as on global distribution systems. Topics include carrier responsibilities and services, freight classifications, rates, tariffs, and public policy and regulations. Also includes logistical geography and the development of skills to solve logistical transportation problems and issues. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1325 - Warehouse and Distribution Center Management

Credits: 3 (3 lecture). Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time manufacturing, continuous replenishment, and third party. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1345 - Economics of Transportation and Distribution

Credits: 3 (3 lecture). A study of the basic economic principles and concepts applicable to transportation and distribution. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1370 - Equipment Operation

Credits: 3 (2 lecture, 2 lab). This course provides students with skills to demonstrate proficiency in the use of equipment used in material handling. Topics include forklift truck safety principles and driving, lifting and delivery proficiency with the forklift. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2288 - Internship: Logistics and Materials Management

Credits: 2 (12 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2389 - Internship: Logistics and Materials Management

Credits: 3 (18 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer as applicable to maritime transportation logistics. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MART 1370 - Introduction to Maritime Shipping

Credits: 3 (2 lecture, 2 lab). This program will introduce the students to the unique role of the Maritime industry in logistics. Topics include port operations, modes of cargo handling and stowage, general shipping, ship construction, types of transport ships, tankers, shipboard nomenclature and the mission of merchant ships. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MATH 0314 Intermediate Algebra

Credits: 3 (3 lecture) Topics include factoring techniques, radicals, algebraic fractions, absolute values, complex numbers, graphing linear equations and inequalities, quadratic equations, systems of equations, graphing quadratic equations and an introduction to functions. Emphasis is placed on algebraic techniques needed in order to successfully complete MATH 1314: College Algebra. A departmental final examination must be passed with a score of 60% or more in order to pass this course. This course is for students who require state mandated remediation and are enrolled in a STEM Area of Study. Prerequisites: MATH 0314P requires either that a student has passed MATH 0332 or MATH 0332P with a “C” or better OR TSIA Math Score 336-349 with Intermediate Algebra score 4-15 OR an equivalent score on a Placement Exam. Corequisite for College Algebra A corequisite course in support of MATH 1314.

MATH 0324 Basic Concepts for Business Math

Credits: 3 (3 lecture) Basic Concepts for Business Math is a developmental math course whose topics include: An intro to real numbers including the order of operations with integers, decimals and fractions; An intro to algebra including the simplification and solving of linear equations in one variable along with the use and manipulation of formulas; Graphs of linear equations in two variables, slopes, and intercepts; An intro to functions with a focus on function notation using linear, quadratic, and exponential equations; Polynomials including their addition, subtraction, multiplication, division, and basic factoring; and Linear inequalities in one variable and in two variables; A departmental final examination must be passed with a score of 60% or more in order to pass the course.

Pre-requisites and /or Corequisites: MATH 0324 requires either a TSIA ABE level 5 or 6 OR TSIA Math Score 336 – 349 with Intermediate Algebra Diagnostic Score 0 – 3 OR Math 0106: Pass with “C” or better.

MATH 0324 is a corequisite to MATH 1324. Since MATH 0324 is corequisite with MATH 1324, withdrawing from MATH 0324 will necessitate withdrawal from MATH 1324 as well.

MATH 0332 Introductory Algebra

Credits; 3 (3 lecture). Topics include real numbers, introduction to logic, polynomials, basic factoring, linear equations, percentage models, order of operations, set operations, and an introduction to other topics including linear and quadratic modelling, and math for financial management. A departmental final examination must be passed with a score of 60% or more in order to pass the course. Pre-requisites and /or Corequisites: MATH 0332 requires either a TSIA ABE level of 5 or 6 OR TSIA Math Score 336 – 349 with Intermediate Algebra Diagnostic Score 0 – 3 OR Completion of MATH 0106 with a C or better.

MATH 0332 is a corequisite to MATH 1332. Since MATH 0332 is corequisite with MATH 1332, withdrawing from MATH 0332 will necessitate withdrawal from MATH 1332 as well.

MATH 0342 Basic Concepts for Statistics

Credits: 3 (3 Lecture). Basic Concepts for Statistics is a developmental math course whose topics include: An intro to real numbers including the order of operations with integers, decimals, and fractions; An intro to algebra including the simplification and solving of linear equations in one variable, use and manipulation of formula, and translation and solving of application problems; Linear inequalities and compound linear inequalities in one variable; Equations and graphs of linear equations in two variables; An intro to functions with a focus on function notation using linear, quadratic, and exponential equations; and Polynomials including their addition, subtraction multiplication, and division. A departmental final examination must be passed with a score of 60% or more in order to pass the course. Pre-requisites and /or Corequisites: MATH 0342 requires either a TSIA ABE level 5 or 6 OR TSIA Math Score 336 – 349 with Intermediate Algebra Diagnostic Score 0 – 3 OR Math 0106: Pass with “C” or better. MATH 0342 is a corequisite with MATH 1342. Since MATH 0342 is corequisite with MATH 1342, withdrawing from MATH 0342 will necessitate withdrawal from MATH 1342 as well.

MATH 1314 - College Algebra

Credits: 3 (3 lecture). Topics include quadratics, polynomial, rational, logarithmic and exponential functions, system of equations, progression, sequences and series, matrices and determinants. A departmental final examination will be given in this course. Core Curriculum Course. Prerequisite: Must be placed into college-level mathematics or completion of MATH 0312.

MATH 1316 - Plane Trigonometry

Credits: 3 (3 lecture). Topics include solutions of triangles, Euler identity, graphing of trigonometric and inverse trigonometric functions, identities, trigonometric equations and an introduction to vector analysis. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1324 - Mathematics for Business & Social Sciences

Credits: 3 (3 lecture). A survey of finite mathematics and its application to problems of business and the natural and social sciences. Topics include set theory, probability, an introduction to matrices, linear programming, and an introduction to statistics. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1325 - Calculus for Business & Social Sciences

Credits: 3 (3 lecture). A survey of differential and integral calculus including the study of functions and graphs from a calculus viewpoint as applied to problems in business and the natural and social sciences. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1332 - Contemporary Mathematics

Credits: 3 (3 lecture). Mathematics for Liberal Arts is a course designed for liberal and fine arts, non-mathematics, non-science, and non-business majors. The course provides students with an appreciation of the History, Civilization, art, and beauty of mathematics in the world around us. Topics include an examination of sets with applications, probability, and statistics, financial management, mathematical modeling, and fundamentals of geometry and its application. Core Curriculum Course. Prerequisite: Must be placed into college-level mathematics or completion of MATH 0312.

MATH 1342 - Elementary Statistical Methods

Credits: 3 (3 lecture). Topics include histograms, probability, binomial and normal distributions and their applications, correlation and prediction, and tests of statistical hypotheses. Core Curriculum Course. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Core curriculum course Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1350 - Mathematics for Teachers I

Credits: 3 (3 lecture). Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real numbers systems with an emphasis on problem-solving and critical thinking. Field of Study Course. Core Curriculum Course. Prerequisite: MATH 1314 or equivalent; must be placed into college-level mathematics.

MATH 1351 - Mathematics for Teachers II

Credits: 3 (3 lecture). Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Field of Study Course. Core Curriculum Course. Prerequisite: MATH 1314 or equivalent; must be placed into college-level mathematics.

MATH 1442 - Stat II: Statistics for Non-STEM Majors

Credits: 4 (4 lecture). Topics include probability, binomial and normal distributions, and their applications, random sampling, statistical inference, estimation, confidence intervals, and tests of statistical hypotheses, and analysis of variance. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Prerequisite: Must pass MATH 0311 with a grade of C or higher.

MATH 2305 - Discrete Mathematics

Credits: 3 (3 lecture). Topics selected from logic, set theory, combinatorics and graph theory. Prerequisite: MATH 2318

MATH 2318 - Linear Algebra

Credits: 3 (3 lecture). Topics include systems of linear equations, vector spaces, matrices, linear mappings, and determinants. Core Curriculum Course. Prerequisite: MATH 2413

MATH 2320 - Differential Equations

Credits: 3 (3 lecture). Topics include initial value problems for first order and linear second order equations, Picard iteration, series solutions, boundary value problems, Laplace transforms and numerical methods. Core Curriculum Course. Prerequisite: MATH 2414

MATH 2412 - Pre-Calculus Math

Credits: 4 (4 lecture). Topics include elementary theory of functions and equations, analytic geometry, vectors, introductory logic, mathematical induction, sequences and finite series. Core Curriculum Course. Prerequisite: MATH 1314 and MATH 1316 or Department Approval

MATH 2413 - Calculus I

Credits: 4 (4 lecture). Limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Core Curriculum Course. Prerequisite: MATH 2412 or consent of the Department Chair

MATH 2414 - Calculus II

Credits: 4 (4 lecture). Integral calculus including discussions of transcendental functions, applications of integration, techniques and improper integrals, infinite series, Taylor series, plane curves, and polar coordinates. Core Curriculum Course. Prerequisite: MATH 2413

MATH 2415 - Calculus III

Credits: 4 (4 lecture). A survey of advanced topics in calculus including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, Jacobians, divergence and Stoke's theorems. Core Curriculum Course. Prerequisite: MATH 2414

MCHN 1302 - Print Reading for Machining Trades

Credits: 3 (3 lecture, 1 lab). A study of blueprints for machining trades with emphasis on machine drawings. Use of sketching techniques to create pictorial and multiple-view drawings. Offered as an 8 week hybrid course. Corequisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1338 Basic Machine Shop. This class should be taken before MCHN 1320 Precision Tools & Measurements. Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301; MCHN 1338.

MCHN 1305 - Metals and Heat Treatment

Credits: 3 (2 lecture, 2 lab). Designed for students going into the workforce as manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. Prerequisite: TECM 1301, MCHN 1302; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 1308 - Basic Lathe

Credits: 3 (1 lecture, 5 lab). An introduction to the common types of lathes. Emphasis on basic parts, nomenclature, lathe operations, safety, machine mathematics, blueprint reading, and theory. Prerequisite: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MCHN 1313 - Basic Milling Operations

Credits: 3 (1 lecture, 5 lab). An introduction to the common types of milling machines, part nomenclature, basic machine operations and procedures, safety, machine mathematics, blueprint reading, and theory. Prerequisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1302 Blueprint Reading for Machine Trades, and MCHN 1338 Basic Machine Shop. Prerequisites/Corequisites: TECM 1301, MCHN 1302, MCHN 1338, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MCHN 1320 - Precision Tools and Measurement

Credits: 3 (3 lecture, 1 lab). An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools. Offered as an 8 week hybrid course. Lecture/Lab combination more accurately reflects class. Prerequisite class introduced - MCHN 1302 Print Reading for Machine Trades. Prerequisite: MCHN 1302, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 1326 - Introduction to Computer-Aided Manufacturing (CAM)

Credits: 3. (2 lecture, 2 lab). A study of Computer-Aided Manufacturing (CAM) software which is used to develop applications for manufacturing. Emphasis on tool geometry, tool selection, and the tool library.

MCHN 1338 - Basic Machine Shop I

Credits: 3 (2 lecture, 3 lab). An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301, MCHN 1302, MCHN 1320.

MCHN 1343 - Machine Shop Mathematics

Credits: 3 (3 lecture). Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.

MCHN 2303 - Fundamentals of Computer Numerical Controlled (CNC) Machine Controls

Credits: 3. (1 lecture, 4 lab). Programming and operation of Computer Numerical Controlled (CNC) machine shop equipment. Demonstrate operations of CNC machine controls; compare and contrast the differences between conventional and CNC machines; utilize CNC machine applications for machining operations.

MCHN 2331 - Operation of CNC Turning Centers

Credits: 3 (2 lecture, 2 lab). Continuation of Fundamentals of CNC Machine Controls with an emphasis on turning centers. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in

reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Prerequisites/Corequisite: ITSC 1309.

MCHN 2333 - Advanced Lathe Operations

Credits: 3 (1 lecture, 4 lab). A study of advanced lathe operations. Identify and use of special cutting tools and support tooling, such as form tools, carbide inserts, taper attachments, follower and steady rest. Close tolerance machining required. Prerequisite: MCHN 1308, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2334 - Operation of CNC Machining Centers

Credits: 3. (1 lecture, 4 lab). CNC operations with an emphasis on machining centers. Set up and operate CNC machining centers; set machine and tool offsets for machining operations; and edit the program as required.

MCHN 2335 - Advanced CNC Machining

Credits: 3 (1 lecture, 4 lab). Advanced CNC operation with an emphasis on programming and operations of machining and turning centers.

MCHN 2337 - Advanced Milling Operations

Credits: 3 (1 lecture, 5 lab). An advanced study of milling machine operations. Identification and/or use of milling cutters and support tooling. Prerequisite: MCHN 1313, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2341 - Advanced Machining I

Credits: 3 (2 lecture, 4 lab). A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: MCHN 2333, MCHN 2337

MDCA 1205 - Medical Law and Ethics

Credits: 2 (2 lecture). Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings.

MDCA 1210 - Medical Assistant Interpersonal and Communication Skills

Credits: 2 (2 lecture). Emphasis on the application of basic psychological principles and the study of behavior as they apply to special populations. Topics include procedures for self-understanding and social adaptability in interpersonal communication with patients and coworkers in an ambulatory care setting.

MDCA 1254 - Medical Assisting Credentialing Exam Review

Credits: 2 (1 lecture, 2 lab). A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams.

MDCA 1264 – Practicum (or Field Experience) - Medical / Clinical Assistant

Credits: 2 (15 external). A health-related work-based external learning experience that enables the student to apply specialized occupational theory, skills and concepts relating to specific occupational outcomes. Practical workplace training is supported by an individualized learning plan developed by the employee, college and student. Direct supervision is provided by the clinical (workplace) professional.

MDCA 1265 - Practicum (or Field Experience) Medical/Clinical Assistant

Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

MDCA 1313 - Medical Terminology

Credits: 3 (3 lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms.

MDCA 1321 - Administrative Procedures

Credits: 3 (2 lecture, 3 lab). Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office.

MDCA 1343 - Medical Insurance

Credits: 3 (2 lecture, 2 lab). Emphasizes medical office coding procedures for payment and reimbursement by patient or third party payers for ambulatory care settings.

MDCA 1352 - Medical Assistant Laboratory Procedures

Credits: 3 (2 lecture, 4 lab). Application of governmental health care guidelines. Includes specimen collection and handling, quality assurance and quality control in performance of Clinical Laboratory Improvement Amendments (CLIA)-waived laboratory testing.

MDCA 1372 - Electronic Medical Record Documentation for Scribes

Credits: 3(2 lecture, 3 lab). This course addresses the basics of history and physical documentation in the electronic medical record. Provides practical application utilizing dictation and/or activities developed for the scribe industry in an ambulatory care setting. Topics include fundamentals of the Electronic Medical Record related to billing and coding. The course prepares students for hands-on skills of medical scribing.

MDCA 1409 - Anatomy and Physiology for Medical Assistants

Credits: 4 (4 lecture). Emphasis on normal human anatomy and physiology of cells, tissues, organs, and systems with overview of common pathophysiology.

MDCA 1417 - Procedures in a Clinical Setting

Credits: 4 (3 lecture, 3 lab). Emphasis on patient-centered assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for the ambulatory care settings.

MDCA 1448 - Pharmacology and Administration of Medications

Credits: 4 (2 lecture, 4 lab). Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant.

METL 1301 - Introduction to Metallurgy

Credits: 3 (3 lecture). A study of refining mechanical and physical properties of ferrous and nonferrous materials including: the theory of alloys, heat treatment, and testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 1313 - Introduction to Corrosion

Credits: 3 (3 lecture). An introduction to internal, external, and atmospheric corrosion including terminology, causes of common problems in industry, and generic remedies such as cathodic protection, protective coatings, material selection, and chemical treatments. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 2405 - Atmospheric Corrosion Control

Credits: 4 (3 lecture, 3 lab). An in-depth study of atmospheric corrosion control by coatings which includes surface preparation, coating selection, coating application, inspection, and failure analysis. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 2441 - Cathodic Protection

Credits: 4 (3 lecture, 3 lab). An in-depth study of corrosion control of buried or submerged metallic structures utilizing both impressed and galvanic cathodic protection systems. Emphasis on regulatory compliance for pipelines and underground storage tanks. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

MLAB 1101 - Introduction to Clinical Laboratory Science

Credits: 1 (1 lecture, 1 lab). Introduction to medical laboratory science, structure, equipment, and philosophy. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1127 - Coagulation

Credits: 2 (3 lab). A course in coagulation theory, procedures, and practical applications. Includes laboratory exercises which rely on commonly performed manual and semiautomatic methods. Prerequisite: MLAB 1270

MLAB 1166 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 2270, 2271, 1211.

MLAB 1167 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 1235, 2331.

MLAB 1211 - Urinalysis and Body Fluids

Credits: 2 (1 lecture, 4 lab). An introduction to urinalysis and body fluid analysis, including the anatomy and physiology of the kidney, and physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids. Prerequisite: Admittance into the MLT Program.

MLAB 1231 - Parasitology/Mycology

Credits: 2 (1 lecture, 4 lab). A study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures. Prerequisite: Admittance into the MLT Program.

MLAB 1235 - Immunology/Serology

Credits: 2 (1 lecture, 4 lab). An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures. Prerequisite: Admittance into the MLT Program.

MLAB 1266 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician

Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 2270, 2271, 1211.

MLAB 1267 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician

Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; and MLAB 2434, 1231.

MLAB 1270 - Hematology I

Credits: 2 (1 lecture, 4 lab). Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated, red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. This course is the first part of a two-part course and concentrates on red cell disorders. Prerequisite: Admittance into the MLT Program.

MLAB 1371 - Registry Review

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2232 - Seminar in Medical Laboratory Technology

Credits: 2 (4 lab). Designed to reinforce didactic information with laboratory methodologies and to allow exploration of advanced techniques in medical laboratory technology Prerequisite: Must be placed into college level reading, writing and math.

MLAB 2238 - Advanced Topics in Medical Laboratory Technician/Assistant

Credits: 2 (1 lecture, 1 lab). This course examines the integration of all areas of the clinical laboratory and correlates laboratory test data with diagnostic applications and pathophysiology using critical thinking skills. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2270 - Clinical Chemistry I

Credits: 2 (1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, proteins, carbohydrates, lipids and NPNs. Prerequisite: General College Chemistry; Admittance into the MLT program.

MLAB 2271 - Clinical Chemistry II

Credits: 2 (1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, enzymes, cardiac, pancreatic, and liver function, vitamins and endocrinology. Prerequisite: MLAB 2270.

MLAB 2331 - Immunohematology

Credits: 3 (2 Lecture, 4 lab). A study of blood antigens and antibodies. Performance of routine blood banking procedures, including blood group and Rh typing, antibody screens, antibody identification, cross matching, elution, and absorption techniques. Presents quality control, basic laboratory technique and safety. Includes the principles, procedures and clinical significance of test results in genetics, blood group systems, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn. Prerequisite: MLAB 1235.

MLAB 2434 - (Clinical) Microbiology

Credits: 4 (3 lecture, 4 lab). Instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures.

Prerequisite: BIOL 2120 and BIOL 2320; must be placed into college-level reading, writing and math.

MRKG 1302 - Principles of Retailing

Credits: 3 (3 lecture). Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1311 - Principles of Marketing

Credits: 3 (3 lecture). Introduction to the marketing functions: identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1370 - Enterprise Mindset

Credits: 3 (3 lecture). Enterprise Skills provides an overview of the crucial skills needed for individuals to excel at developing both for profit and not-for profit (social) enterprise ventures.

All the pertinent skills will be covered, including action oriented activities to provide students with skills necessary to succeed. Topics will include: creativity, experimentation, risk-taking, self-reliance, character, self-leadership, growth mindset, action orientation, persistence, resourcefulness, collaboration and empathy. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1391 - Special Topics in Business Marketing and Marketing Management

Credits: 3 (3 lecture). Sports and Entertainment Marketing introduces the basic principles of marketing, economic impact, the History, Civilization, of sports and entertainment, careers, as well as legal and business risks involved in the industry. Students will also learn characteristics and buying behaviors of sports consumers as well as entertainment consumers Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2312 - e-Commerce Marketing

Credits: 3 (3 lecture). Explore electronic tools utilized in marketing; focus on marketing communications in developing customer relationships.

MRKG 2333 - Principles of Selling

Credits: 3 (3 lecture). Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2348 - Marketing Research and Strategies

Credits: 3 (3 lecture). A simulated marketing environment for experience in marketing decision-making. Provides practical experiences in analyzing marketing cases. Includes dynamic interrelationships among marketing price, channels of distribution, promotion, and product responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2349 - Advertising and Sales Promotion

Credits: 3 (3 lecture). Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2370 - Creativity and Innovation

Credits: 3 (3 lecture). Creativity and Innovation will introduce the concepts of creativity and how those concepts spur innovation and the economy. Processes for the development of individual and organizational creativity will be covered as well as importance of innovation in economic communities, strategies for systematic development of innovative

products/services/ideas, and topics related to using innovation in marketing to create demand, drive growth and build new industries. Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2371 - Services Marketing

Credits: 3 (3 lecture). An analysis of the principles, methods and problems of marketing for both professional and consumer services. A study of competition, customer service, services design, pricing, services promotion and distribution strategies. Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2372 - Consumer Behavior

Credits: 3 (3 lecture). A study of buyer motives, reference groups, social class, culture, and family and social interrelationships are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2374 - Marketing Case Studies

Credits: 3 (3 lecture). A study of marketing problems and challenges through the use of case histories and actual marketing situations involving advertising, prices, distribution, product selection, client or consumer behavior, marketing training, market segmentation and international marketing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2375 - Social Enterprise

Credits: 3 (3 lecture). Social Enterprise is a comprehensive overview of the important aspects of enterprise as related to social needs and the development of not-for-profit organizations. Topics will include: the development of enterprise skills related to the creation of not-for profit social organizations such as fund-raising, public affairs, analyses of social needs (market assessment for social interests); organizational planning, marketing and leadership for the social organization, building community support, social media strategy and other topics related to not-for-profit social organizations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2376 - Enterprise Opportunity Analysis

Credits: 3 (3 lecture). A comprehensive overview of all aspects of opportunity analysis, including how to differentiate a good idea from a lucrative idea, how to analyze current and future markets for products/services, how to develop marketing and operations strategies based on the analyses. The course will culminate in an Enterprise Plan (similar to a business plan, but with more emphasis on analysis for innovation, strategies for taking action and being flexible as the market changes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2377 - Financial Management/Budgeting for Enterprise Marketing

Credits: 3 (3 lecture). Financial Management/Budgeting for Enterprise Marketing provides a comprehensive overview of the budgeting needs and processes of financial management that relate specifically to marketing the start-up enterprise (profit or not-for-profit). Enterprises have different financial needs and issues related directly to the development of innovation. This course will teach the students how to market and manage an enterprise will little or no funds, as well as options for obtaining capital with which to launch new ventures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2378 - Franchises

Credits: 3 (3 lecture). Franchising is a comprehensive course that explores all aspects of utilizing the franchise model for developing a new venture. The pros and cons of the franchising model are explored. The financial requirements and risks, the legal pitfalls and obligations of franchises, and the process for expanding into franchises (for both franchisee and franchisor) are explored. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2380 - Cooperative Education - Marketing /Marketing Management, General

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRMT 1307 - Medical Transcription I

Credits: 3 (2 lecture, 3 lab). Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as history, and physicals, discharge summaries, consultations, operative reports, and other medical reports compatible with industry standards. Designed to develop speed and accuracy. Prerequisite:

MUAP and MUAP Studio Catalog Descriptions

Lessons course descriptions: Hour lessons require ten practice hours per week. Hour lessons may be divided into two 30-minute lessons by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate major(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUAP Studio corequisite is required. Private instruction is offered to music majors only. Hour lessons earn one credit (1 lecture).

Studio course descriptions: Studio Class is required for all students registered in private instruction (MUAP) courses. The Studio Class meets weekly to provide performance experience for music students. Hour studio lessons earn one credit (1 lecture).

MUAP and MUAP Studio Catalog Listings

Individual instruction in voice, instrument, composition, or conducting.

- MUAP 1101, 1102, 2101, 2102. Violin.
- MUAP 1103, 1104, 2103, 2104. Violin Studio.
- MUAP 1105, 1106, 2105, 2106. Viola.
- MUAP 1107, 1108, 2107, 2108. Viola Studio.
- MUAP 1109, 1110, 2109, 2110. Cello.
- MUAP 1111, 1112, 2111, 2112. Cello Studio.
- MUAP 1113, 1114, 2113, 2114. Bass.
- MUAP 1115, 1116, 2115, 2116. Bass Studio.
- MUAP 1117, 1118, 2117, 2118. Flute/Piccolo.
- MUAP 1119, 1120, 2119, 2120. Flute/Piccolo Studio.

- MUAP 1121, 1122, 2121, 2122. Oboe/English Horn.
- MUAP 1123, 1124, 2123, 2124. Oboe/English Horn Studio.
- MUAP 1125, 1126, 2125, 2126. Bassoon.
- MUAP 1127, 1128, 2127, 2128. Bassoon Studio.
- MUAP 1129, 1130, 2129, 2130. Clarinet.
- MUAP 1131, 1132, 2131, 2132. Clarinet Studio.
- MUAP 1133, 1134, 2133, 2134. Saxophone.
- MUAP 1135, 1136, 2135, 2136. Saxophone Studio.
- MUAP 1137, 1138, 2137, 2138. Trumpet/Cornet.
- MUAP 1139, 1140, 2139, 2140. Trumpet/Cornet Studio.
- MUAP 1141, 1142, 2141, 2142. French Horn.
- MUAP 1143, 1144, 2143, 2144. French Horn Studio.
- MUAP 1145, 1146, 2145, 2146. Trombone.
- MUAP 1147, 1148, 2147, 2148. Trombone Studio.
- MUAP 1149, 1150, 2149, 2150. Euphonium/Baritone.
- MUAP 1151, 1152, 2151, 2152. Euphonium/Baritone Studio.
- MUAP 1153, 1154, 2153, 2154. Tuba.
- MUAP 1155, 1156, 2155, 2156. Tuba Studio.
- MUAP 1157, 1158, 2157, 2158. Percussion.
- MUAP 1159, 1160, 2159, 2160. Percussion Studio.
- MUAP 1161, 1162, 2161, 2162. Guitar.
- MUAP 1163, 1164, 2163, 2164. Guitar Studio.
- MUAP 1165, 1166, 2165, 2166. Organ.
- MUAP 1167, 1168, 2167, 2168. Organ Studio.
- MUAP 1169, 1170, 2169, 2170. Piano.
- MUAP 1171, 1172, 2171, 2172. Piano Studio.
- MUAP 1173, 1174, 2173, 2174. Harp.
- MUAP 1175, 1176, 2175, 2176. Harp Studio.
- MUAP 1177, 1178, 2177, 2178. Voice.
- MUAP 1179, 1180, 2179, 2180. Voice Studio.
- MUAP 1181, 1182, 2181, 2182. Improvisation.
- MUAP 1183, 1184, 2183, 2184. Improvisation Studio.
- MUAP 1185, 1186, 2185, 2186. Arranging and Composition.
- MUAP 1187, 1188, 2187, 2188. Arranging and Composition Studio.

MUAP 1189, 1190, 2189, 2190. Conducting.
MUAP 1191, 1192, 2191, 2192. Conducting Studio.

MUEN 1121 - Symphonic Orchestra I

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 1122 - Symphonic Orchestra II

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 1124 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 1125 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 1127 - Major Jazz Ensemble I

Credits: 1 (3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1128 - Major Jazz Ensemble II

Credits: 1 (3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1130 - Guitar Ensemble I

Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

MUEN 1134 - Small Jazz Ensemble I

Credits: 1 (3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1135 - Small Jazz Ensemble II

Credits: 1 (3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1137 - Chamber Ensemble I

Credits: 1 (3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1138 - Chamber Ensemble II

Credits: 1 (3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1140 - Guitar Ensemble II

Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

MUEN 1141 Concert Choir I

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 1142 Concert Choir II

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 1154 - Show Choir I

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 1155 - Show Choir II

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2121 - Symphonic Orchestra III

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2122 - Symphonic Orchestra IV

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2124 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience

MUEN 2125 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience.

MUEN 2127 - Major Jazz Ensemble III

Credits: 1 (3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 2128 - Major Jazz Ensemble IV

Credits: 1 (3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 2134 - Small Jazz Ensemble III

Credits: 1 (3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2135 - Small Jazz Ensemble IV

Credits: 1 (3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2137 - Chamber Ensemble III

Credits: 1 (3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 2138 - Chamber Ensemble IV

Credits: 1 (3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 2141 Concert Choir III

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 2142 Concert Choir IV

Credits: 1 (3 lab). Any large choral ensemble. The study of a wide variety of literature for voice and choir through rehearsal and performance, Open to non-majors. Performances required.

MUEN 2154 - Show Choir III

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2155 - Show Choir IV

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUSB 1305 - Survey of the Music Business

Credits: 3 (3 lecture). An overview of the music industry including song writing, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSB 1341 - Concert Promotion and Venue Management

Credits: 3 (3 lecture, 1 lab). A course in the basics of concert promotion and venue management including considerations in purchasing a club; concert promotion and advertising; talent buying; city codes; insurance; Texas Alcoholic Beverage Commission Regulation; American Society of Composers, Arrangers, and Publishers (ASCAP/BMI) licenses; personnel management; and concert production and administration. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 1391 - Special Topics in Music Business

Credits: 3 (3 lecture). Students will define and implement a music marketing strategy that defines career goals and creates online branding; utilizes various forms of social media to enforce online presence, build fan base and drive sales in the digital environment. Students will also participate in a self-directed course of independent study that constitutes one hour per week. Proof of participation will be provided by submissions of blog posts that reflect a meaningful contribution each week. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2301 - Music Marketing

Credits: 3 (3 lecture). A study of the methods of distribution, retailing, and wholesaling. Topics include the basics of purchasing, inventory control, shipping and receiving, returns, pricing and cost analysis, merchandising, retail display, sales promotion, advertising, security and shrinkage, personnel management, and relationships between retailers and distributors. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. MUSB 1305.

MUSB 2305 - Music Publishing

Credits: 3 (3 lecture). A study of the administrative and marketing aspects of music publishing including the application of current copyright law, developing song writers, rights exploration, and royalty collection. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2309 - The Record Industry

Credits: 3 (3 lecture). Overview of the record industry and the organization of large and small record companies. Emphasizes record company functions such as artist and repertoire (A & R), promotion, marketing, business affairs, and administration and distribution including Internet-based distribution. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305.

MUSB 2345 - Live Music and Talent Management

Credits: 3 (3 lecture). An examination of the role, scope, and activities of the talent manager including establishing the artist/manager relationship; planning the artist's career; and developing goals, strategies, and tactics with an overall view of the live music business. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2355 - Legal Aspects of the Entertainment Industry

Credits: 3 (3 lecture). Copyright law and the various agreements used in the entertainment industry. Emphasizes contracts used by music publishers, record companies, artist managers, record producers, film and television producers, and booking agencies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2380 - Cooperative Education - Music Business Management and Merchandising

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305.

MUSB 2381 - Cooperative Education - Music Management

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305.

MUSC 1249 - Applied Music: Conducting

Credits: 2 (1 lecture, 4 lab). Private lessons in conducting. Development of technique through the practice of basic beat patterns, beginning beats, gesturing, and cueing. Emphasis on score reading and knowledge of musical terminology. Prerequisite: Commercial Music Theory I and II; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1270 - Fundamentals of Music Production

Credits: 2 (1 lecture, 4 lab). An introduction to the art of producing music in the modern recording studio. The focus of the course will be on the process involved in taking a song idea from initial inception to final commercial release. Topics will include appropriate choice of genre, song construction, demoing material, producing charts and lead sheets, digital tempo and rhythmic manipulation, managing musicians during sessions, mixing aesthetics, and final mastering and packaging of a product. Prerequisite: MUSC 1427, 1331, grade of C or higher. Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1305 - Live Sound I

Credits: 3. (3 lecture). An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system.

MUSC 1309 - Conducting Class

Credits: 3 (2 lecture, 2 lab). Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experience. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1321 - Songwriting I

Credits: 3 (3 lecture). Introduction to techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical hooks, analyzing the marketplace, and developing a production plan for a song demo. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1323 - Audio Electronics

Credits: 3 (2 lecture, 4 lab). Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting audio problems. Topics include soldering techniques, audio electronic alignment procedures for tape machines, console maintenance, and sound reinforcement equipment maintenance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1325 – Acoustics

Credits: 3 (2 lecture, 3 lab). Principles of sound in air, sound in recording, and sound reinforcement. Topics include acoustical properties of studios, live performance facilities, resonance, and electronic and acoustic control. Students will be able to describe specific characteristics of sound in air; describe acoustical properties of halls, rooms, and studios; measure and quantify sound characteristics; and utilize electronic and acoustic control measures. Prerequisite: MUSC 1427 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MUSC 1327 - Audio Engineering I

Credits: 3 (2 lecture, 4 lab). The tools, personnel and standard workflow of a recording studio. Topics include fundamentals of sound and overview of tracking, editing, and mixing audio. Prerequisite: MUSC 1335, Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1330 - Computer Music Notation I

Credits: 3 (1 lecture, 4 lab). Survey of music notation software and applications with skill development in computer music notation. Prerequisite: Basic computer skills; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1331 - MIDI I

Credits: 3 (2 lecture, 4 lab). An overview of the Musical Instrument Digital Interface (MIDI) system and applications. Topics include the History, Civilization, and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language, and typical implementation of MIDI applications in the studio environment using software-based sequencing programs. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1335 - Commercial Music Software

Credits: 3 (2 lecture, 4 lab). Specialized training in commercial music software applications. This course includes integration of computer-based hardware and software with an emphasis on the utilization of DAW (digital audio workstation) technology in the professional studio environment. Prerequisite: Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1350 - Remixing

Credits: 3 (2 lecture, 4 lab). Basic techniques necessary to produce finished remixes of previously recorded musical compositions. Includes using audio and MIDI "beats" and "loops." Prerequisite: MUSC 1331 or Department Approval

MUSC 1396 - Special Topics in Recording Arts Technology / Technician: Advanced Mixing and Mastering in Protocols

Credits: 3 (2 lecture, 4 lab). Topics address advanced mixing and mastering concepts within the Protocols digital software environment. Topics include analysis of mixes by genre, use of advanced effects processing to emphasize depth, clarity, and frequency balance, and time-based editing processes such as time stretching. Students will also practice software-based mastering techniques to optimize mixes for various digital distribution methods.

Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1405 - Live Sound I

Credits: (3 lecture, 2 lab). An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2141 - Forum/Recital

Credits: 1 (3 lab). Stylistic analysis of commercial music performances presented by students, faculty, and guest artists. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2201 - Audio Engineering Practices

Credits: 2 (1 lecture, 2 lab). Application of the concepts and techniques presented in Audio Engineering I and II. (May be repeated three times for credit. Students are required to attend additional lab hours outside of class.) Prerequisite: MUSC 2447, RTVB 2232; must be placed into college-level reading, writing and math. Corequisite: MUSC 2448, 2457 or 2458.

MUSC 2214 - Improvisation Theory I

Credits: 2. (2 lecture, 1 lab). For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided in. A study of the chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2230 - Commercial Music Arranging and Composition

Credits: 2 (1 lecture, 4 lab). Presentation of arranging and composition for projects in industry recognized genres including song writing, show writing, video, and film. Prerequisite: MUSC 1321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2234 - Improvisation Theory II

Credits: 2 (2 lecture, 1 lab). A continuation of the study of chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Prerequisite: MUSC 2214; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2319 - Orchestration

Credits: (3 lecture). Exploration of writing for voices and instruments to include ranges, transportation, and idiosyncrasies of each instrument with emphasis on commercial music chord voicings.

Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2345 - Synthesis II

Credits: 3 (2 lecture, 3 lab). Course emphasizes technology that integrates MIDI sequencing with digital audio. Topics include computer based hard disk recording systems, MIDI machine control, advanced techniques in synthesizer editing, digital transfers of audio data and CD mastering. The student will demonstrate advanced skill in FM and hybrid synthesis techniques; explain and utilize digital sampling; complete projects using advanced synthesis techniques; and edit samples and synthesizer voices. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2350 - Computer Music Notation II

Credits: 3 (1 lecture, 4 lab). Study and practices in music notation software at a professional level, including large score notation.

Prerequisite: MUSC 1330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2355 - MIDI II

Credits: 3 (2 lecture, 4 lab). A continuation of MIDI I with emphasis on advanced sequencer operation, and SMPTE-based synchronization in the interaction of multiple recording and playback systems.

Prerequisite: MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2403 - Live Sound II

Credits: 4 (3 lecture, 3 lab). Overview of stage monitor systems. Includes monitor systems set-up and operation and stage management. Also covers interactivity between sound management, performance quality, and audience experience.

Prerequisite: Must be placed into college-level reading, writing and math.

MUSC 2427 - Audio Engineering II

Credits: 4 (3 lecture, 2 lab). Major topics include the recording process, microphones and placement techniques, audio console operation, multitrack recording and signal processors. Audio software includes Pro Tools and Digital Performer, Spark and Peak audio editors, Toast and Jam CD editors, Acid looping software. Students learn basic tracking techniques, studio set up and break down and participate in 32 hours of recording sessions. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 1427 and MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2433 - Scoring for Video and Film

Credits: 4 (3 lecture, 3 lab). Advanced concepts of technology to score and synchronize audio with video or film productions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2447 - Audio Engineering III

Credits: 4 (3 lecture, 2 lab). Advanced practice of procedures and techniques in recording and manipulating audio. Includes digital audio editing, advanced recording techniques, and advanced engineering projects. Prerequisite: MUSC 1270, MUSC 2427, RTVB 1240 and MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2448 - Audio Engineering IV

Credits: 4 (3 lecture, 3 lab). Examination of the role of the producer including recording, mixing, arranging, analyzing projects, session planning, communications, budgeting, business aspects, technical consideration, and music markets. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into college-level reading, writing and math.

MUSC 2457 - Audio Engineering V

Credits: 4 (3 lecture, 4 lab). Analysis and practice of the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to tracking. Prerequisite: MUSC 2448, 2201, 2355; must be placed into college-level reading, writing and math.

MUSC 2458 - Audio Engineering VI

Credits: 4 (3 lecture, 4 lab). Analysis and practice in the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to mixing. Prerequisite: MUSC 2457, 2201; must be placed into college-level reading, writing and math.

MUSI 1116 - Sight Singing & Ear Training I

Credits: 1 (3 lab). Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony. Required of majors. Corequisite: MUSI 1311.

MUSI 1117 - Sight Singing & Ear Training II

Credits: 1 (3 lab). Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony. Required of majors. Corequisite: MUSI 1312.

MUSI 1160 - Italian Diction

Credits: 1 (1 lecture, 1 lab). Study of Italian phonetic sounds to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 1161 - International Phonetic Alphabet (IPA) for Singers

Credits: 1 (1 lecture, 1 lab). A study of the International Phonetic Alphabet (IPA) and its application to singing in English, Italian, German, and French.

MUSI 1181 - Piano Class I

Credits: 1 (3 lab). Class instruction in the fundamentals of keyboard technique for beginning piano students only. A skills course. May be repeated. Required of majors. Open to non-majors. Prerequisite: MUSI 1101 or Department Approval

MUSI 1182 - Piano Class II

Credits: 1 (3 lab). Continuation of MUSI 1181. May be repeated. Required of majors. Open to non-majors.

MUSI 1183 - Voice Class I

Credits: 1 (3 lab). Class instruction in fundamentals of singing: tone production, breath production, diction and standard music repertoire. Designed for students with little or no previous vocal training.

MUSI 1192 - Guitar Class

Credits: 1 (3 lab). This class is designed to provide students the fundamentals of guitar, aiding them as they learn or improve their reading of music. Consult with instructor concerning instrument availability. A knowledge of music is not required, but helpful. Open to all students.

MUSI 1303 Fundamentals of Music

Credits: 3 (3 lecture). Introduction to the basic elements of music theory, including scales, intervals, keys, triads, elementary ear training, notation, meter, and rhythm. Course does not apply to a music major degree.

MUSI 1306 - Music Appreciation

Credits: 3 (3 lecture). A foundation course in understanding and enjoyment of music through the use of recorded music and song literature. Elements of music and analysis of music form and how they relate to compositional technique are explored. Open to all students. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1307 - Music Literature

Credits: 3 (3 lecture). A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation. This course satisfies the Creative Arts or Component Area Option of the HCC Core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1310 - American Music

Credits: 3 (3 lecture). General survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary music. This course satisfies the Creative Arts or Component Area Option of the HCC Core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1311 - Music Theory I

Credits: 3 (3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Required of majors. Corequisite: MUSI 1116.

MUSI 1312 - Music Theory II

Credits: 3 (3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to more complex topics, such as modulation, may occur. Required of majors. Corequisite: MUSI 1117

MUSI 2116 - Sight Singing & Ear Training III

Credits: 1 (3 lab). Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures. Required of majors. Corequisite: MUSI 2311.

MUSI 2117 - Sight Singing & Ear Training IV

Credits: 1 (3 lab). Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony. Required of majors. Corequisite: MUSI 2312.

MUSI 2160 - German Diction

Credits: 1 (1 lecture, 1 lab). Study of phonetic sounds of German to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2161 - French Diction

Credits: 1 (1 lecture, 1 lab). Study of phonetic sounds of French to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2181 - Piano Class III

Credits: 1 (3 lab). Continuation of MUSI 1182. May be repeated. Required of majors. Open to non-majors.

MUSI 2182 - Piano Class IV

Credits: 1 (3 lab). Continuation of MUSI 2181. May be repeated. Required of majors. Open to non-majors.

MUSI 2311 - Music Theory III

Credits: 3 (3 lecture). Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Required of majors. Corequisite: MUSI 2116

MUSI 2312 - Music Theory IV

Credits: 3 (3 lecture). Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Required of majors. Corequisite: MUSI 2117.

MUSP 1240 - Large Commercial Music Ensemble: Band

Credits: 2 (1 lecture, 2 lab). Participation in a large band concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1241 - Large Commercial Music Ensemble: Symphony Orchestra

Credits: 2 (1 lecture, 2 lab). Participation in a large symphony orchestra concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1242 - Small Commercial Music Ensemble

Credits: 2 (1 lecture, 2 lab). Participation in a small commercial music ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1250 - Small Commercial Music Ensemble: Jazz

Credits: 2 (1 lecture, 2 lab). Participation in a jazz ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1292 - Special Topics in Music - Piano and Organ Performance

Credits: 2 (1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1293 - Special Topics in Music - Voice and Choral /Opera Performance

Credits: 2 (1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1308 - Music Theater I

Credits: 3 (1 lecture, 8 lab). Presentation of literature from the musical theater including operetta, revues, and musical comedy with emphasis on vocal and movement skills. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 2203 - Commercial Class Piano

Credits: 2 (2 lecture, 1 lab). Development of keyboard skills for commercial music majors including blues progressions and scales, model harmony, and extensive use of the ii-V7-I progression with appropriate keyboard voicing. Prerequisite: college-level piano skills Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2206 - Commercial Vocal Ensemble: General
Credits: 2 (1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2207 - Commercial Vocal Ensemble: Jazz
Credits: 2 (1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal jazz performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2231 - Applied Commercial Music: Arranging and Composition
Credits: 2 (1 lecture, 4 lab). Private instruction in arranging and composition with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2304 - Piano Studio I
Credits: 3 (3 lecture, 1 lab). Presentation of keyboard, theoretical, and aural instructional strategies. Survey of beginning methods; series, solo, and technique books; basic techniques of improvisation, and professional affiliations. Prerequisite: college-level piano performance Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2338 - Music Theater II
Credits: 3 (1 lecture, 8 lab). Advanced presentation of literature from the musical theater including operetta, revues, and/or musical comedy with emphasis on high level vocal and movement skills and an advanced leadership role in a production. Prerequisite: MUSP 1308; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

NDTE 1305 - Introduction to Ultrasonic
Credits: 3 (2 lecture, 4 lab). Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

NMTT 1166 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 2 (10 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1211 - Nuclear Medicine Patient Care
Credits: 2 (1 lecture, 4 lab). Introduction to medical terminology, health care ethics and legal issues, communication and patient interaction skills, patient assessment, and procedures involving transport, infection control, emergency, safety, phlebotomy and injections. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1267 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1266; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1301 - Introduction to Nuclear Medicine

Credits: 3 (2 lecture, 4 lab). Introduction to the field of nuclear medicine with emphasis on the principles of radiation safety, health physics, ethics, and the various studies performed in a nuclear medicine area. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1409 - Nuclear Medicine Instrumentation

Credits: 4 (3 lecture, 6 lab). Application of instrumentation used in the measurement and analysis of ionizing radiation with emphasis on gamma spectrometry and quality assurance. Prerequisite: SCIT 1420, Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2167 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist

Credits: 1 (10 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1267; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2201 - Radiochemistry and Radiopharmacy

Credits: 2 (1 lecture, 4 lab). Basic concepts of radiochemistry and radiopharmacy including the atomic structure, radioactive decay, and production of various radionuclides. Emphasis on radiopharmaceuticals and their ideal characteristics, biodistribution, and clinical applications; the various dosage forms in which they may be dispensed; quality control tests; and their formation and dispensing. Prerequisite: CHEM 1405, NMTT 1409; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2266 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist

Credits: 2 (20 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2167; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2309 - Nuclear Medicine Methodology I

Credits: 3 (2 lecture, 4 lab). Principles and practices involved in nuclear medicine regarding cardiovascular, genitourinary, respiratory systems, and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic value. Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2367 - Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist

Credits: 2 (24 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2266; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2413 - Nuclear Medicine Methodology II

Credits: 4 (2 lecture, 6 lab). Principles and practices involved in nuclear medicine regarding gastrointestinal, central nervous system, skeletal system, tumor and inflammation processes and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, pathology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic values. Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-level reading, college-level writing and MATH 1314 in math.

OSHT 1301 - Introduction to Safety and Health

Credits: 3 (3 lecture). An introduction to the basic concepts of safety and health. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

OTHA 1161 - Clinical - Occupational Therapist Assistant

Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312.

OTHA 1162 - Clinical - Occupational Therapist Assistant

Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1241 - Occupational Performance from Birth through Adolescence

Credits: 2 (2 lecture, 3 lab). Occupational performance of newborns through adolescents. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1253 - Occupational Performance for Elders

Credits: 2 (2 lecture, 3 lab). Occupational performance of elders. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1301 - Introduction to Occupational Therapy

Credits: 3 (2 lecture, 4 lab). Introduction to the historical development and philosophy of the profession of occupational therapy. Emphasis on the roles and functions of the occupational therapy assistant in current health care environments including moral, legal, and ethical issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math

OTHA 1305 - Principles of Occupational Therapy

Credits: 3 (2 lecture, 3 lab). Introduction to occupational therapy including the historical development and philosophy. Emphasis on the roles of the occupational therapy assistant. Topics include occupation in daily life; education and functions; occupational therapy personnel; current health care environment; and moral, legal and ethical issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1309 - Human Structure and Function in Occupational Therapy

Credits: 3 (2 lecture, 3 lab). Study of biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1315 - Therapeutic Use of Occupations or Activities I

Credits: 3 (2 lecture, 3 lab). Various occupations or activities used as therapeutic interventions in occupational therapy. Emphasis on awareness of activity demands, contexts, adapting, grading, and safe implementation of occupations or activities. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1319 - Therapeutic Interventions I

Credits: 3 (2 lecture, 3 lab). Concepts, techniques, and assessments leading to proficiency in skills and activities used as treatment interventions in occupational therapy (OT). Emphasizes the Occupational Therapy Assistant's role in the OT process. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2209 - Mental Health in Occupational Therapy

Credits: 2 (2 lecture, 3 lab). Promotion of mental health through occupational therapy. Emphasis on theory and intervention strategies to enhance occupational performance. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2266 – Practicum (or Field Experience) -- Occupational Therapy Assistant

Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2267 Practicum (or Field Experience) -- Occupational Therapy Assistant

Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2301 - Pathophysiology in Occupational Therapy

Credits: 3 (3 lecture). Pathology and general health management of diseases and injuries across the lifespan encountered in occupational therapy treatment settings. Includes etiology, symptoms, and the client's physical and psychological reactions to disease and injury. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2302 - Therapeutic Use of Occupations or Activities II

Credits: 3 (2 lecture, 3 lab). Continuation of OTHA 1315/1415: Therapeutic Use of Occupations or Activities I. Emphasis on advanced techniques and applications used in traditional and non-traditional practice settings. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2305 - Therapeutic Interventions II

Credits: 3 (2 lecture, 3 lab). Continuation of Therapeutic Interventions I. Emphasis on current rehabilitative interventions. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2311 - Abnormal Psychology in Occupational Therapy

Credits: 3 (3 lecture, 1 lab). Fundamental principles and techniques of psychological diagnosis with emphasis on mental health issues including theories, etiology, and treatment intervention. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2330 - Workplace Skills for the Occupational Therapy Assistant

Credits: 3 (3 lecture). Seminar-based course designed to complement Level II fieldwork by creating a discussion forum addressing events, skills, knowledge, and/or behaviors related to the practice environment. Application of didactic coursework to the clinic and test-taking strategies for certification exams. Prerequisite: All OTHA courses - simultaneous with Clinical II courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2331 - Physical Function in Occupational Therapy

Credits: 3 (2 lecture, 3 lab). Physical function to promote occupational performance. Includes frames of reference, assessment/evaluation tools and techniques, patient/client education, and intervention strategies. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2335 Health Care Management in Occupational Therapy

Credits: 3 (2 lecture, 3 lab). Explores the roles of the occupational therapy assistant in health care delivery. Topics include documentation, reimbursement, credentialing, ethical standards, health care team role delineation, and management. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

PHIL 1301 - Introduction to Philosophy

Credits: 3 (3 lecture). This course is a theoretically diverse introduction to the study of ideas, including arguments and investigations about abstract and real phenomena, particularly in the areas of knowledge, ethics, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 1304 - Introduction to World Religions

Credits: 3 (3 lecture). This course is a diverse survey of world traditions and religions, including African traditions, Native American traditions, Hinduism, Buddhism, Islam, Tao and Chinese Philosophy, Christianity and Judaism. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2303 - Introduction to Formal Logic

Credits: 3 (3 lecture). An introduction to symbolic logic, focusing on both propositional and predicate logic, emphasizing the rules of translating language into symbols, the rules of inference and replacement, and the mechanism of reasoning used by computers. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

PHIL 2306 - Introduction to Ethics

Credits: 3 (3 lecture). A philosophical reflection of the basic principles of the moral life, including traditional and contemporary views concerning the nature of goodness, happiness, duty, and freedom as they apply to individual right, business, medicine, and community well-being. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1302 or Department Approval

PHIL 2307 - Introduction to Social and Political Philosophy

Credits: 3 (3 lecture). This course is a critical analysis of political theories and social issues. Consideration will be given to historically significant and contemporary systems, problems, and thinkers. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2316 - Classical Philosophy

Credits: 3 (3 lecture). An historic survey of critical and reflective thinking as applied to the basic problems of existence and the meaning of human life and institutions; begins with the Greek and Roman philosophers, continues through the Middle Ages, and ends with the Renaissance; a study of the nature of philosophy as applied to the development of the scientific method, the existence of God, and the political structures of society. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core.
Prerequisite: ENGL 1302 or Department Approval

PHIL 2321 - Philosophy of Religion

Credits: 3 (3 lecture). A critical investigation of major religious ideas, experiences, and questions that form the basis for a philosophy of religion. Prerequisite: ENGL 1301 or Department Approval

PHRA 1243 - Pharmacy Technician Certification Review

Credits: 2 (2 lecture). A review of major topics covered on the National Pharmacy Technician Certification examination (PTCE). Prerequisite: Successful completion of all 1st & 2nd semester PHRA courses.

PHRA 1247 - Pharmaceutical Mathematics II

Credits: 2 (2 lecture, 1 lab). Advanced concepts of Pharmaceutical Mathematics. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1260 - Clinical - Pharmacy Technician / Assistant

Credits: 2 (10 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: HPRS 1201, PHRA 1309, PHRA 1413

PHRA 1261 - Clinical - Pharmacy Technician / Assistant

Credits: 2 (8 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: PHRA 1102, PHRA 1205, PHRA 1309, and PHRA 1313 (with a minimum grade of C or better); Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1272 - Professional Practices for Pharmacy Technicians

Credits: 2 (2 lecture, 1 lab). Development of the necessary interpersonal and professional skills and abilities needed to become a successful entry-level pharmacy technician. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program

PHRA 1301 - Introduction to Pharmacy

Credits: 3 (3 lecture). An overview of the qualifications, operational guidelines, and job duties of a pharmacy technician.

PHRA 1304 - Pharmacotherapy and Disease Process

Credits: 3 (3 lecture). A study of the disease state and therapeutic properties of drugs used in pharmaceutical therapy Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1305 - Drug Classification

Credits: 3 (3 lecture). A study of pharmaceutical drugs, abbreviations, classifications, dosages, side effects, and routes of administration. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1309 - Pharmaceutical Mathematics I

Credits: 3 (3 lecture). Solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1413 - Community Pharmacy Practice

Credits: 4 (2 lecture, 4 lab). Introduction to the skills necessary to process, prepare, label, and maintain records of prescriptions in a community pharmacy to include customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, inventory management and legal parameters. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1445 - Compounding Sterile Preparations

Credits: 4 (2 lecture, 6 lab). The process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP <797> standards. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1449 - Institutional Pharmacy Practice

Credits: 4 (2 lecture, 6 lab). Fundamentals of the diverse roles and practice of pharmacy technicians in an institutional pharmacy setting. In-depth coverage of hospital pharmacy organization, work flow and personnel, safety techniques, data entry, packaging and labeling operations, inpatient drug distribution systems including investigational drugs, continuous quality improvement and inventory control. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 2260 - Clinical - Pharmacy Technician / Assistant

Credits: 2 (8 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHRA 2261 - Clinical - Pharmacy Technician / Assistant

Credits: 2 (10 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHTC 1311 - Fundamentals of Photography

Credits: 3 (2 lecture, 4 lab). An introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1343 - Expressive Photography

Credits: 3 (2 lecture, 4 lab). A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Prerequisite: PHTC 1311

PHTC 1345 - Illustrative Photography I

Credits: 3 (2 lecture, 4 lab). Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1351 - Photojournalism I

Credits: 3 (2 lecture, 4 lab). Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1353 - Portraiture I

Credits: 3 (2 lecture, 4 lab). Photographic principles applied to portrait lighting, posing, and subject rapport. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1371 - Adobe Photoshop Lightroom CC

Credits: 3 (2 lecture, 4 lab). Introductory concepts in the use of the computer software for photographic manipulation, batch processing, printing and output.

PHTC 2340 - Photographic Studio Management

Credits: 3 (3 lecture). Photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2343 - Portfolio Development

Credits: 3 (2 lecture, 4 lab). A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, skills in resume creation, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest. Prerequisite: All PHTC courses; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2349 – Photo Digital Imaging II

Credits: 3 (2 lecture, 4 lab). Advanced concepts in the use of the computer and software for photographic manipulation and output.

PHTC 2353 - Portraiture II

Credits: 3 (2 lecture, 4 lab). Advanced concepts in the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Prerequisite: PHTC 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHYS 1305 - Elementary Physics I (Lecture)

Credits: 3 (3 lecture). General introduction to basic and fundamental principles in physics (with minimal or no computations) including: motion, gravity, momentum, energy, relativity, structures of matter, thermal energy, waves and sound. This course is intended as a non-lab-based preparatory course for students wishing to take PHYS 1401 and PHYS 1402, and also for those students wishing to take PHYS 2325 who have no prior knowledge of physics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

PHYS 1401 - College Physics I (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Non-calculus based course for medical related majors, architecture majors, technology majors, and other non-engineering and non-science majors. Topics include motion and forces, work and energy, momentum and collision, and the thermal properties of matter. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: MATH 1314, 1316; must also be placed into GUST 0341 (or higher) in reading.

PHYS 1402 - College Physics II (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Continuation of non-Calculus based physics for medical related majors, architecture majors, technology majors and other non-engineering and non-science majors. Topics include wave motion, electricity, magnetism, electromagnetic waves, optics, and topics in modern physics. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: PHYS 1401; must also be placed into GUST 0341 (or higher) in reading.

PHYS 2125 - University Physics I (Lab)

Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2325 (University Physics I) for science and engineering majors. Core Curriculum Course. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2126 - University Physics I (Lab)

Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2326 (University Physics II) for science and engineering majors. Core Curriculum Course. Prerequisite/Corequisite: PHYS 2326; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher).

PHYS 2325 - University Physics I (Lecture)

Credits: 3 (3 lecture, 1 lab). A calculus-based physics course designed specifically for chemistry, physics, and engineering majors. Topics include principles of mechanics, sound, wave phenomena, kinetic theory, fluid flow, and thermal physics. (formerly PHYS 2425) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2326 - University Physics II (Lecture)

Credits: 3 (3 lecture, 1 lab). Continuation of calculus based physics. Course designed specifically for chemistry, physics, and engineering majors. Includes principles of electricity and magnetism, optics, electromagnetic waves, relativity, kinetic theory, introduction to quantum theory, thermal physics, and other physics topics. (formerly PHYS 2426) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: PHYS 2425 or 2325; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher) in math.

PLAB 1173 - Phlebotomy

Credits: 1 (1 lecture, 4 lab). Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Topics include professionalism, ethics, and medical terminology. Prerequisite: Must be placed into college-level reading, writing and math.

POFI 1301 - Computer Applications I

Credits: 3 (2 lecture, 3 lab). Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures.

POFI 1341 - Computer Applications II

Credits: 3 (2 lecture, 3 lab). Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, and procedures. The student will demonstrate proficiency in commonly used software applications and identify and explain the concepts involved in producing documents using advanced features of software applications. Emphasis is on developing end-user proficiency skills for office environments. Prerequisite: POFI 1301.

POFI 1349 - Spreadsheets

Credits: 3 (2 lecture, 3 lab). Spreadsheet software for business applications.

POFI 1380 - Cooperative Education – Business / Office Automation / Technology / Data Entry

Credits: 3 (1 lecture, 20 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 semester hours of business technology courses.

POFI 2331 - Desktop Publishing

Credits: 3 (2 lecture, 3 lab). In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications.

POFL 1305 - Legal Terminology

Credits: 3 (3 lecture). An introduction to legal terminology including spelling, pronunciation, and definition of legal terms and an overview of the law and the professions.

POFL 1359 - Legal Transcription

Credits: 3 (2 lecture, 3 lab). Skill development in comprehensive vocabulary, listening, organizing, and transcribing client-quality documents used in a legal office. Prerequisite: POFL 1305.

POFL 2305 - Introduction to Legal Research

Credits: 3 (3 lecture). Exploration of legal issues utilizing current and emerging research techniques. Prerequisite: POFL 1305.

POFM 1300 - Basic Medical Coding

Credits: 3 (2 lecture, 3 lab). Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems.

POFM 1370 Office Specialist Medical Terminology

Credits: 3 (3 Lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms.

POFM 2333 - Medical Document Production

Credits: 3 (2 lecture, 3 lab). Study of advanced concepts of medical office activities, practices, and procedures. Topics include advanced medical reports, transcription, coding, billing, insurance activities, and records management. This course is designed to provide practical applications of the linkage of the CPT-4 coding system. Medical references will be used for research and verification. MEDISOFT software applicable. Prerequisite: POFM 1300.

POFT 1319 - Records and Information Management I

Credits: 3 (3 lecture). Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules. The student will identify the stages in the life cycle of a record; file and retrieve records using alphabetic, numeric, geographic, and subject filing systems, input, index, code, and cross-reference records; use tickler file, requisition, and charge-out procedures; and differentiate between manual and electronic filing.

POFT 1325 - Business Math Using Technology

Credits: 3 (3 lecture). Skill development in the use of electronic calculators and business mathematical functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard.

POFT 1329 - Beginning Keyboarding

Credits: 3 (2 lecture, 3 lab). Skill development in the operation of the keyboard by touch, applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents.

POFT 1345 - Shorthand / Notetaking I

Credits: 3 (2 lecture, 3 lab). An introduction to shorthand/notetaking principles. Mastery of accurate reading and writing of notes to produce mailable documents from dictation.

POFT 1370 - Introduction to Office Technology

Credits: 3 (2 lecture, 3 lab). An introduction to present and future resources used to facilitate handling of office information. Study will be made of equipment applications and procedures, terminology and environmental factors affecting productivity and career paths.

POFT 1380 - Cooperative Education - Administrative Assistant and Secretarial Services, General

Credits: 3 (1 lecture/ 20 external). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.

Prerequisite: Completion of 12 semester hours.

POFT 2301 - Intermediate Keyboarding

Credits: Credit 3 (2 lecture, 3 lab). A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, following instructions, and keying documents from various copy. Prerequisite: POFT 1329.

POFT 2331 - Administrative Project Solutions

Credits: 3 (2 lecture, 3 lab). Experience in project management and office procedures utilizing integration of previously learned skills.

POFT 2380 - Cooperative Education - Administrative Assistant and Secretarial Science, General

Credits: 3 (1 lecture/ 20 external). An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: POFT 1380.

PREM 0100 - Test Prep - Math

Credits: 1. (1 lecture). Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREM 0200 - Test Prep - Math

Credits: 2. (2 lecture). Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PSTR 1301 - Fundamentals of Baking

Credits: 3 (2 lecture, 4 lab). Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1305 - Breads and Rolls

Credits: 3 (2 lecture, 4 lab). Concentration on fundamentals of chemically- and yeast-raised breads and rolls. Instruction on commercial preparation of a wide variety of products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1306 - Cake Decorating I

Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1310 - Pies, Tarts, Teacakes and Cookies

Credits: 3 (2 lecture, 4 lab). Focus on preparation of American- and European-style pie and tart fillings and dough, cookies, teacakes, custard and batters. Instruction in finishing and presentation techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1312 - Laminated Dough, Pate a Choux and Donuts

Credits: 3 (2 lecture, 4 lab). Focus on preparation of laminated doughs to include puff pastry, croissant, and Danish and a variety of pate a choux (eclair paste) products and donuts. Fillings and finishing techniques included. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1340 - Plated Desserts

Credits: 3 (2 lecture, 4 lab). Preparation and service of hot and cold desserts with a focus on individual desserts, a la minute preparations, and numerous components within one preparation. Emphasis on station organization, timing, and service coordination for restaurant dessert production. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1343 - Bakery Operations and Management

Credits: 3. (2 lecture, 2 lab). Introduction to management, marketing, supervision, and sanitation principles required in retail bakery operations. Emphasis on cost control, pricing, computer usage, and personnel issues.

PSTR 1391 - Special Topics in Baker/Pastry Chef

Credits: 3. (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

PSTR 1471 - Baking for Special Dietary Needs

Credits: 4 (2 lecture, 4 lab). Focus on baking methods and principles from a nutritional and chemical/physical point of view. Topics to be covered include: diets such as vegan, diabetic, low carbohydrate and gluten-free, nutritional analyses, and preparation of items for persons with special dietary needs. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products

PSTR 2301 - Chocolates and Confections

Credits: 3 (2 lecture, 4 lab). Production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolate, caramels, nougats, and pate de fruit. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2307 - Cake Decorating II

Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2331 - Advanced Pastry Shop

Credits: 3 (2 lecture, 4 lab). A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Prerequisite: PSTR 1301, PSTR 1310; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2350 - Wedding Cakes

Credits: 3 (2 lecture, 4 lab). Skills, concepts, and techniques for preparing wedding cakes. Includes marzipan, plastic chocolate-rolled fondant, chocolate garnish, flower making, and royal icing piping work. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2370 - Supervised Study: Capstone Study in Baking & Pastry Arts

Credits: 3 (1 lecture, 5 lab). Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Provides the student and instructor an opportunity to work together to identify the critical areas of need in the student's repertoire. An individualized plan will be developed to address the student's weaknesses and to lead progressively to a group demonstration of critical skills. Individual assessment constitutes the majority of this course. Lab, lecture, research, and out-of-class projects will be utilized.

PSYC 2301 - General Psychology

Credits: 3 (3 lecture). General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC Core. PSYC 2301 is included in the Psychology Field of Study. Prerequisites: Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2306 - Human Sexuality

Credits: 3 (3 lecture). This course will provide an overview of the broad field of human sexuality. Topics will be covered from various perspectives – biological, sociological, anthropological, etc., but will focus primarily on the psychological perspective. The goal is for each student to learn factual, scientifically-based information that will provoke thought and contribute to his/her own decision-making on sexual issues outside of the classroom. Prerequisites: Satisfied the requirements for college-level reading and writing skills or take INRO 0420 or ESOL 0360 as a corequisite.

PSYC 2307 - Adolescent Psychology

Credits: 3 (3 lecture). This course explores the physical, behavioral, mental, emotional, and social changes that accompany growth and development in adolescence. The purpose of this course is to provide an overview of theories, research, issues, and applications related to adolescent development. Prerequisites: Satisfied the requirements for college-level reading and writing skills or take INRO 0420 or ESOL 0360 as a corequisite.

PSYC 2308 - Child Psychology

Credits: 3 (3 lecture). This course will address psychological development from conception through middle childhood with references to physical, cognitive, social and personality changes. Students will examine the interplay of biological factors, human interaction, social structures and cultural forces in development. Prerequisites: Satisfied the requirements for college-level reading and writing skills or take INRO 0420 or ESOL 0360 as a corequisite.

PSYC 2314 - Lifespan Growth & Development

Credits: 3 (3 lecture). Lifespan Growth and Development is a study of social, emotional, cognitive and physical factors and influences of a developing human from conception to death. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC Core. PSYC 2314 is included in the Psychology Field of Study. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite).

PSYC 2315 - Psychology of Adjustment

Credits: 3 (3 lecture). Study of the processes involved in adjustment of individuals to their personal and social environments. Prerequisites: Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2316 - Psychology of Personality

Credits: 3 (3 lecture). Study of various approaches to determinants, development, and assessment of personality. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC Core. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2317 - Statistical Methods in Psychology

Credits: 3 (3 lecture). This course covers descriptive and inferential statistics used in psychological research and assessment. It includes measurement, characteristics of distributions; measures of central tendency and variability; transformed scores; correlation and regression; probability theory; and hypotheses testing and inference. This course satisfies the Mathematics or Component Area Option of the HCC Core. PSYC 2317 is included in the Psychology Field of Study. Prerequisites: Completed and passed PSYC 2301. Completed and passed MATH 1314 or equivalent. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2319 - Social Psychology

Credits: 3 (3 lecture). Study of individual behavior within the social environment. Topics may include socio-psychological processes, attitude formation and change, interpersonal relations, group processes, self, social cognition, and research methods. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC Core. PSYC 2319 is included in the Psychology Field of Study. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2320 Abnormal Psychology

Credits: 3 (3 lecture). This course provides an introduction to the psychological, biological, and socio-cultural factors involved in the development, diagnosis, and treatment of psychological disorders. It includes a review of the historical understanding of abnormal behavior and the development of modern diagnostic systems. It includes discussion of psychological research and practice as it relates to mental health and psychological functioning, as well as legal and ethical issues. This course satisfies the Component Area Option of the HCC Core. PSYC 2320 is included in the Psychology Field of Study. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2330 Biological Psychology

Credits: 3 (3 Lecture). An introduction to the biological bases of behavior. Topics include evolution, genetics, research methods in behavioral neuroscience, motivation and emotion, sensation and perception, learning and memory, lifespan development, cognition, psychological disorders, and other complex behaviors. This course satisfies the Component Area Option of the HCC Core. PSYC 2330 is included in the Psychology Field of Study. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PSYC 2389 Academic Cooperative-Research

Credits: 3 (3 Lecture). An instructional program designed to integrate on-campus study with practical hands-on experience in psychology. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Class seminars as well as student goals and objectives will focus on skilled application of the methodologies employed in psychological research. Prerequisites: Completed and passed PSYC 2301. Satisfied the requirement for college-level reading and writing skills or take INRW 0420 or ESOL 0360 as a corequisite.

PTAC 1302 - Introduction to Process Technology

Credits: 3 (3 lecture). Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations, plant organizations, plant process and utility systems, and the physical and mental requirements of the process technician. Corequisite:

PTAC 1308

PTAC 1308 - Safety, Health, and Environment I

Credits: 3 (3 lecture). Development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Corequisite: PTAC 1302

PTAC 1332 - Process Instrumentation I

Credits: 3 (2 lecture, 2 lab). Study of the instruments and instrument systems used in the process industry including terminology, primary variables, symbology, control loops, and basic troubleshooting. Prerequisite: PTAC 1302 and

PTAC 1308. Co-requisite: 1410.

PTAC 1350 - Industrial Economics

Credits: 3 (3 lecture). Examination of the profitability factors of plant operations including personnel and business strategies. Prerequisite: 1332.

PTAC 1354 - Industrial Processes

Credits: 3 (3 lecture). Study of the processes employed in process plant operations. Prerequisite: PTAC 1302

PTAC 1410 - Process Technology I - Equipment

Credits: 4 (3 lecture, 3 lab). Instruction in the use of common process equipment. Prerequisite: PTAC 1302 and

PTAC 1308. Co-requisite: 1332.

PTAC 2314 - Principles of Quality

Credits: 3 (3 lecture). Study of the background and application of quality concepts. Topics include team skills, quality tools, and economics and continuous improvement.

Prerequisite: PTAC 1302.

PTAC 2336 - Process Instrumentation II

Credits: 3. (3 lecture). Continued study of the instruments and control systems used in the process industries including terminology, process variables, symbology, control loops, and troubleshooting. Prerequisite: 1332.

PTAC 2420 - Process Technology II - Systems

Credits: 4 (3 lecture, 3 lab). Study of the interrelation of process equipment and process systems including related scientific principles. Prerequisite: PTAC 11332 and PTAC 1410.

PTAC 2438 - Process Technology III - Operations

Credits: 4 (3 lecture, 3 lab). This course combines systems into operational processes with emphasis on operations under various conditions. Prerequisite: PTAC 2420. Corequisite: PTAC 2446.

PTAC 2446 - Process Troubleshooting

Credits: 4 (3 lecture, 3 lab). Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause effect relationships, and reasoning. Prerequisite: PTAC 2420. Co-requisite: PTAC 2438.

PTHA 1266 - Practicum (or Field Experience) - Physical Therapist Assistant

Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: PTHA 2205, PTHA 2509; HPRS 2232, must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1267 - Practicum (or Field Experience) - Physical Therapist Assistant

Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 1266, PTHA 2435, PTHA 2431; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239.

PTHA 1301 - The Profession of Physical Therapy

Credits: 3 (2 lecture, 2 lab). Introduction to the profession of physical therapy and the role of the physical therapist assistant. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1321 - Pathophysiology for the PTA

Credits: 3 (3 lecture, 1 lab). Study of the pathophysiology of diseases/conditions encountered in physical therapy. Prerequisite: PTHA 1413, PTHA 1301; HPRS 1206; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1405 - Basic Patient Care Skills

Credits: 4 (3 lecture, 6 lab). Introduction to the theory and application of basic patient handling, functional skills, assessment techniques, and measurement techniques. The student will distinguish and examine the theory, principles, and techniques of patient handling and functional skills; perform basic patient handling, functional skills, assessment techniques, and measurement techniques; and utilize relevant communication techniques. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Prerequisites: PTHA 1321, PTHA 1413.

PTHA 1413 - Functional Anatomy

Credits: 4 (3 lecture, 4 lab). The relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: BIOL 2401

PTHA 1431 - Physical Agents

Credits: 4 (2 lecture, 4 lab). Biophysical principles, physiological effects, efficacy, and application of physical agents. Prerequisite: PTHA 1413, PTHA 1405, PTHA 1301, PTHA 1405, HPRS 1206; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2205 - Neurology

Credits: 2 (2 lecture, 1 lab). Study of neuroanatomy and neurophysiology as it relates to commonly encountered neurological conditions. Prerequisite: PTHA 1321; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2266 - Practicum (or Field Experience) - Physical Therapist Assistant

Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 2435, PTHA 2431, PTHA 1267; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239.

PTHA 2301 - Essentials of Data Collection

Credits: 3 (2 lecture, 4 lab). Data collection techniques used to assist in patient/client management. Prerequisite: PTHA 1405, PTHA 1321, PTHA 1413, PTHA 1301, HPRS 1106; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1431, HPRS 2332

PTHA 2339 - Professional Issues

Credits: 2 (2 lecture, 2 lab). Discussion of professional issues and behaviors related to clinical practice; preparation for transition into the workforce. Prerequisite: PTHA 2431, PTHA 2435; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1267, PTHA 2266.

PTHA 2431 - Management of Neurological Disorders

Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Prerequisite: PTHA 2205, PTHA 2509, PTHA 2435; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2435 - Rehabilitation Techniques

Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected musculoskeletal, neuromuscular, cardiopulmonary, and integumentary disorders. Prerequisite: PTHA 2205, PTHA 2509; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2509 - Therapeutic Exercise

Credits: 5 (3 lecture, 6 lab). Concepts, principles, and application of techniques related to therapeutic exercise and functional training. Prerequisite: PTHA 1321, PTHA 1431, PTHA 2301, Corequisite HPRS 2332; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTRT 1301 - Introduction to Petroleum Industry

Credits: 3 (3 lecture). An introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing, and chemical processing industries.

PTRT 1313 - Industrial Safety

Credits: 3 (3 lecture). An overview for petroleum and manufacturing workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R 1910, 1926 standards.

PTRT 1370 - Petroleum Geology

Credits: 3 (3 lecture). Principles of geological patterns, rock shapes and structures, and reservoir formations associated with petroleum operations. Prerequisite: PTRT 1301, MATH 1314

PTRT 1470 - Petroleum Data Management I - Exploration

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in exploration; covers the History, Civilization, fundamentals, terminology and software for exploration; introduction to the principles of geology, geophysics and petro-physics. Prerequisite: PTRT 1301, PTAC 1308, MATH 1314 OR Departmental Approval

PTRT 1471 - Exploration and Production I

Credits: 4 (2 lecture, 4 lab). Overview of various aspects of Deepwater operations Deepwater exploration, drilling and completing wells, development of production systems. Prerequisite: PTRT 1301

PTRT 1472 - Petroleum Data Management II-Drilling and Production

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in drilling and production. Covers the History, Civilization, fundamentals, terminology and software for drilling and production. Introduction to the principles of drilling, production and reservoir. Prerequisite: PTRT 1470

PTRT 1473 - Exploration and Production II

Credits: 4 (2 lecture, 4 lab). Continue with exploration and production principles including drilling rigs, giant oil and gas fields, beam pumpers, and geological classifications. Prerequisite: PTRT 1470

PTRT 2323 - Natural Gas Production

Credits: 4 (2 lecture, 4 lab). An overview of the aspects of natural gas and oil production including various aspects of hydrocarbon production, processing equipment, and gas compression/transportation systems. Prerequisite: PTRT 2331

PTRT 2331 - Well Completions

Credits: 3 (3 lecture). Drilling and wellbore analysis data to develop a well completion plan. Prerequisite: PTRT 1473, MATH 1325

PTRT 2370 - Petroleum Operations

Credits: 3 (3 lecture). Course covers the principles and fundamentals of onshore and offshore operations implemented in oil recovery. Prerequisite: PTRT 1470

PTRT 2372 - Internship - Petroleum Technology / Technician

Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: PTRT 2331, Department Approval

PTRT 2470 - Petroleum Data Management III - Facilities and Performance

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in surface facilities and automation. Covers the History, Civilization, fundamentals, terminology and software for surface facilities and automation. Prerequisite: PTRT 2331

QCTC 2331 – Standards

Credits: 3. (3 lecture). Philosophy and theory of appropriate standards, organizations, and systems integration relating to the standards criteria in society. Survey the philosophy and theory of standards and standards organizations; apply the systems management approach as related to the development and application of standards; and examine national, international, and other standards. Implement auditing and documentation practices and verify traceability to the appropriate standard.

RADR 1160 - Clinical - Radiologic Technology / Science - Radiographer

Credits: 1 (5 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1266 – Practicum (or Field Experience) – Radiologic Technology / Science - Radiographer

Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1160, RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RADR 1303 - Patient Care

Credits: (3 lecture). An introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1313 - Principles of Radiographic Imaging I

Credits: 3 (3 lecture, 1 lab). Radiographic image quality and the effects of exposure variables. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1411 - Basic Radiographic Procedures

Credits: 4 (2 lecture, 4 lab). An introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 2167 - Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2213, RADR 2217, RADR 2367; must be placed into college-level reading, writing and math.

RADR 2213 - Radiation Biology and Protection

Credits: 2 (2 lecture). Effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Prerequisite: RADR 2309; must be placed into college-level reading, writing and math.

RADR 2217 - Radiographic Pathology

Credits: 2 (2 lecture). Disease processes and their appearance on radiographic images. Prerequisite: RADR 2331; must be placed into college-level reading, writing and math.

RADR 2260 - Clinical - Radiologic Technology / Science - Radiographer

Credits: 2 (8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RADR 2309, RADR 2401, RADR 1266; must be placed into college-level reading, writing and math.

RADR 2309 - Radiographic Imaging Equipment

Credits: 3 (3 lecture). A study of the equipment and physics of x-ray production, basic x-ray circuits and relationship of equipment components to the imaging process. Prerequisite: RADR 2305, RADR 2331; must be placed into college-level reading, writing and math.

RADR 2331 - Advanced Radiographic Procedures

Credits: 3 (2 lecture, 2 lab). Continuation of positioning; alignment of the anatomical structure and equipment, evaluation of images for proper demonstration of anatomy and related pathology. Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2333 - Advanced Medical Imaging

Credits: 3 (3 lecture). Specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis. Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2335 - Radiologic Technology Seminar

Credits: 3 (3 lecture, 1 lab). A capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning. Prerequisite: All RADR courses or by Department Approval; must be placed into college-level reading, writing and math.

RADR 2340 - Sectional Anatomy for Medical Imaging

Credits: 3 (3 lecture). Anatomic relationships that are present under various sectional orientations as depicted by computed tomography or magnetic resonance imaging. Prerequisite: RADR 2333; must be placed into college-level reading, writing and math.

RADR 2366 - Practicum (or Field Experience) – Radiologic Technology / Science - Radiographer

Credits: 3 (24 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1267, RADR 2233; must be placed into college-level reading, writing and math.

RADR 2367 - Practicum (or Field Experience) – Radiologic Technology / Science - Radiographer

Credits: 3 (24 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2333, RADR 2366; must be placed into college-level reading, writing and math.

RADR 2401 - Intermediate Radiographic Procedures

Credits: 4 (3 lecture, 4 lab). A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of anatomy. Prerequisite: RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RBTC 1301 Programmable Logic Controllers

Credits: 3 (2 lecture, 4 lab). A study in programmable logic controllers (PLC). Topics include processor units, numbering systems, memory organization, relay type devices, timers, counters, data manipulators, and programming. Emphasis will be placed on converting ladder diagrams into programs; explaining digital/analog devices used with programmable logic controllers; and executing and evaluating control system operation. Prerequisite: CETT 1425 or INTC 1441 or Department Approval, must be placed into college-level reading, writing and math.

RELE 1191 - Special Topics in Real Estate

Credits: 1 (1 lecture). This course contains instruction on good study habits and an overview to better prepare the student to take their State Examination to obtain a Texas Real Estate License. Topics covered include principles of real estate, real estate law, landlord tenant relationships, ownership and transfer of real property, legal descriptions, taxes, closing disclosures and procedures, fair housing, real estate appraisal, financing, and general overview of both State and Federal laws regarding the real estate industry. Students will be given a review of both the Texas Real Estate License Act and The Rules and Regulations of the Texas Real Estate Commission.

RELE 1200 - Contract Forms and Addenda

Credits: 2 (2 lecture). Promulgated Contract Forms, which shall include but is not limited to unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use forms and case studies involving use of forms. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1201 - Principles of Real Estate I

Credits: 2 (2 lecture). A beginning overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1211 - Law of Contracts

Credits: 2 (2 lecture). Elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms, and owner disclosure requirements. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1219 - Real Estate Finance

Credits: 2 (2 lecture). Monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending, Community Reinvestment Act, and the state housing agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1238 - Principles of Real Estate II

Credits: 2 (2 lecture). Overview of licensing as a broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing, discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1291 - Special Topics in Real Estate

Credits: 3 (3 lecture). Commercial Real Estate is an overview of the commercial real estate industry which includes: commercial real estate culture, real estate professionalism and ethics, types of properties, investors, end users, leasing, developing, marketing psychology, advertising, time management, negotiating and closing, financing and characteristics of a successful salesperson.

Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1303 - Real Estate Appraisal

Credits: 3 (3 lecture). A study of the central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting.

Accredited: Texas Appraiser Licensing and Certification Board. (Formerly REAL 2301)

Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1307 - Real Estate Investments

Credits: 3 (3 lecture). Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and non-discounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1309 - Real Estate Law

Credits: 3 (3 lecture). Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title.

Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1315 - Property Management

Credits: 3 (3 lecture). A study of the role of the property manager, landlord policies, operating guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1321 - Real Estate Marketing

Credits: 3 (3 lecture). A study of real estate professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiating and closing financing; and the Deceptive Trade Practice Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1323 - Real Estate Computer Applications

Credits: 3 (3 lecture). A study of the availability of technology, current software, and its ability to help a real estate agent become more productive. Includes database, mapping, mortgage interest, contact management, presentation and real estate related software application packages. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1324 - Loan Origination and Quality Control

Credits: 3 (3 lecture). An introduction to the mortgage loan application process. Topics include regulatory compliance and documentation; real estate contracts; the mortgage application process, interview techniques; credit, income and property qualification, quality controls and procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1325 - Real Estate Mathematics

Credits: 3 (3 lecture). Basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statements. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1329 - Fundamentals of Environmental Issues

Credits: 3 (3 lecture). A study of environmental issues affecting the real estate industry including hazardous substances, underground storage tanks, wetlands, radon, asbestos, lead, endangered species protection, sick building syndrome and electromagnetic fields. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1335 - Real Estate Construction

Credits: 3 (3 lecture). A study of the basic principles of design and construction of real estate properties. This course meets part of the educational requirements, as determined by The Texas Real Estate Commission, to become a licensed inspector. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1371 - Loan Processing

Credits: 3 (3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and processing. Also includes the role of lenders, residential loan appraisals, closing, and funding the loan. This course emphasizes workforce training in the areas of loan processing and originating procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1381 - Cooperative Education - Real Estate

Credits: 3 (1 lecture, 20 external). Career related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and RELE 2301; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1391 - Special Topics in Real Estate

Credits: 3. (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

RELE 2201 - Law of Agency

Credits: 2 (2 lecture). A study of Law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying representation procedures, and the disclosure of an agency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 2307 - Real Estate Title and Settlement

Credits: 3 (3 lecture). Examines the procedural aspects required to research land titles, establish and administer title closings, escrow, determination of settlement requirements, and filing.

In addition, the lender's closing instructions, document review, funding procedures, post-closing audit and file set up will be presented. This course emphasizes workforce training in the area of closing and funding procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2311 - Fundamentals of Mortgage Lending

Credits: 3 (3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and underwriting. Also includes the role of lenders, security instruments, residential loan appraisals, and closing and funding the loan. This course emphasizes workforce training in the areas of loan processing and underwriting procedures as determined by the needs of industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2331 - Real Estate Brokerage

Credits: 3 (3 lecture). A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2381 - Cooperative Education-Real Estate

Credits: 3 (1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. The student is required to work a minimum of 20 hours a week and attend a weekly seminar. An approved project and final report are required. Prerequisite: Department Approval and RELE 1381; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RNSG 1105 - Nursing Skills I

Credits: 1 (3 Lab). Study of concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission to the A.D.N program. Corequisite: RNSG 1413, RNSG 1360

RNSG 1144 - Nursing Skills II

Credits: 1 (3 Lab). Study of concepts and principles necessary to perform intermediate or advanced nursing skills; and demonstrate competence in the performance of nursing procedures. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213 Corequisite: RNSG 1343, RNSG 2221, RNSG 2130, RNSG 236

RNSG 1160 - Clinical - Registered Nursing/Registered Nurse

Credits: 1 (6 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1161 - Clinical - Registered Nursing/Registered Nurse

Credits: 1 (6 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1163 - Clinical - Registered Nursing/Registered Nurse

Credits: 1 (3 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: RNSG 1327, RNSG 1215.

RNSG 1201 – Pharmacology

Credits: 2 (2 lecture). Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework.

RNSG 1215 – Health Assessment

Credits: 2 (1 lecture, 2 lab). Development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 1251 - Care of the Childbearing Family

Credits: 2 (2 lecture). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 2201, RNSG 1341, RNSG 2360 Corequisite: 1160, RNSG 2213

RNSG 1327 - Transition to Professional Nursing

Credits: 3 (2 lecture, 3 lab). Topics include health promotion, expanded assessment, analysis of data, nursing process, pharmacology, multidisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the life span. Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: RNSG 1163

RNSG 1341 - Common Concepts of Adult Health

Credits: 3 (3 lecture). Basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of the profession. Study of the common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1360, RNSG 1413 Corequisite: RNSG 2360, RNSG 2201, RNSG 2261

RNSG 1343 - Complex Concepts of Adult Health

Credits: 3 (3 lecture). Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession in the care of adult clients/families in structured health care settings with complex medical-surgical health care needs associated with each body system. Emphasis on knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: RNSG 2213, RNSG 1251 Corequisite: RNSG 2361, RNSG 1144

RNSG 1360 - Clinical - Registered Nursing/Registered Nurse - RNT Foundations

Credits: 3 (9 Clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the ADN program. Corequisite: RNSG 1115, RNSG 1413.

RNSG 1413 - Foundations for Nursing Practice

Credits: 4 (3 lecture, 2 lab). Introduction to the role of the professional nurse as provider of care, coordinator of care, and member of the profession. Topics include but are not limited to the fundamental concepts of nursing practice, History, Civilization, of professional nursing, a systematic framework for decision-making, mechanisms of disease, the needs and problems that nurses help patients manage, and basic psychomotor skills. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: Admission to the ADN program. Corequisite: RNSG 1115, RNSG 1360, BIOL 2402, PSYC 2314

RNSG 2130 - Professional Nursing Review and Licensure Preparation

Credits: 1 (1 lecture). Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes application of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. This course lends itself to either a blocked or integrated approach. Prerequisite: RNSG 2213, RNSG 1251. Corequisite: RNSG 1343 or Department Approval

RNSG 2160 - Clinical-Registered Nursing/Registered Nurse

Credits: 1 (6 clinical). A health related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG 1341, RNSG 2201, 1413, RNSG 1360 Corequisite: RNSG 2213, RNSG 1251.

RNSG 2201 - Care of Children and Families

Credits: 2 (2 lecture). Study of concepts related to the provision of nursing care for children and families, emphasizing judgment, and professional values within a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 1105 Corequisite: RNSG 1341, RNSG 2360, RNSG 2261

RNSG 2213 - Mental Health Nursing

Credits: 2 (2 lecture). Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families. Prerequisite: RNSG 1341; Corequisite: RNSG 1251, RNSG 2160.

RNSG 2221 - Professional Nursing: Leadership and Management

Credits: 2 (2 lecture). Exploration of leadership and management principles applicable to the roles of the professional nurse. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213

RNSG 2261 - Clinical - Registered Nursing/Registered Nurse

Credits: 2 (6 clinical). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 1105 Corequisite: RNSG 2360, RNSG 2201, RNSG 1341

RNSG 2314 - Integrated Care of the Patient with Complex Health Care Needs

Credits: 3. Application of a systematic problem-solving process, critical thinking skills and concepts to provide comprehensive nursing care to patients and families across the lifespan with complex health care needs including, but not limited to, complex childhood/adolescent diseases, complicated perinatal care, acute mental illness, complex perioperative care, serious adult health problems and health issues related to aging. Emphasis on tertiary disease prevention, health maintenance/restoration and collaboration with members of the interdisciplinary health care team. Content includes the roles of the professional nurse and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to an integrated approach. Prerequisite: Integrated Care of the Patient with Common Health Care Needs: 2404, 2504

RNSG 2360 - Clinical - Registered Nursing/Registered Nurse

Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG413, RNSG 1360 Corequisite: RNSG 1341

RNSG 2361 - Clinical - Registered Nursing/Registered Nurse

Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RNSG, 1251, RNSG 2213 Corequisite: RNSG 1144, RNSG 1343

RSPT 1201 - Introduction to Respiratory Care

Credits: 2 (2 lecture). An introduction to the field of respiratory care. Topics include the History, Civilization, of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Prerequisite: Must be placed into college-level reading, writing and math.

RSPT 1213 - Basic Respiratory Care Pharmacology

Credits: 2 (2 lecture). A study of basic pharmacological principles/practices of respiratory care drugs. Emphasis on classification, routes of administration, dosages/calculations, and physiological interaction. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: RSPT 1225

RSPT 1225 - Respiratory Care Sciences

Credits: 2 (2 lecture, 1 lab). Physics, mathematics, and chemistry as related to respiratory care. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: RSPT 1213

RSPT 1240 - Advanced Cardiopulmonary Anatomy and Physiology

Credits: 2 (2 lecture). Provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system. Prerequisite: BIOL 2301 BIOL 2101, BIOL 2302, BIOL 2102; must be placed into college-level reading, writing and math.

RSPT 1262 - Clinical - Respiratory Care Therapy/Therapist

Credits: 2 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RSPT 1361, RSPT 1225; must be placed into college-level reading, writing and math. Corequisite: RSPT 2314

RSPT 1310 - Respiratory Care Procedures I

Credits: 3 (2 lecture, 3 lab). Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Content areas include: oxygen therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, pulse oximetry, arterial blood gas sampling and interpretation. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: RSPT 1361

RSPT 1311 - Respiratory Care Procedures II

Credits: 3 (2 lecture, 3 lab). Provides essential knowledge of airway care and mechanical ventilation. Airway care includes indications, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Prerequisite: RSPT 1361, RSPT 1310; must be placed into college-level reading, writing and math. Corequisite: RSPT 1362

RSPT 1360 - Clinical - Respiratory Care Therapy / Therapist

Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1201; Corequisite: RSPT 1310

RSPT 1361 - Clinical - Respiratory Care Therapy / Therapist

Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: RSPT 1310

RSPT 2210 - Cardiopulmonary Disease

Credits: 2 (2 lecture). A discussion of pathogenesis, pathology, diagnosis, History, Civilization, prognosis, manifestation, treatment, and detection of cardiopulmonary diseases. Prerequisite: RSPT 1240; RSPT 2361; must be placed into college-level reading, writing and math.

RSPT 2230 - Respiratory Care Examination Preparation

Credits: 2 (1 lecture, 4 lab). Theory and History, Civilization, of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination respiratory care. Prerequisite: RSPT 2325; Corequisite: RSPT 2262.

RSPT 2239 - Advanced Cardiac Life Support

Credits: 2 (1 lecture, 2 lab). Advanced Cardiac Life Support (ACLS) with an emphasis on airway management. Designed to develop skills for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification. Prerequisite: RSPT 2317, RSPT 2325, RSPT 2255, RSPT 2258; must be placed into college-level reading, writing and math.

RSPT 2255 - Critical Care Monitoring

Credits: 2 (2 lecture). Advanced monitoring techniques used to assess a patient in the critical care setting. Prerequisite: RSPT 2260; must be placed into college-level reading, writing and math. Corequisite: RSPT 2266.

RSPT 2258 - Respiratory Care Patient Assessment

Credits: 2 (2 lecture). Integration of patient examination techniques, including patient History, Civilization, and physical exam, lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and noninvasive hemodynamics. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math.

RSPT 2262 - Clinical - Respiratory Care Therapy/Therapist

Credits: 2 (8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2362 Corequisite: RSPT 2230

RSPT 2314 - Mechanical Ventilation

Credits: 3 (3 lecture, 1 lab). The study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Includes indications, complications, and physiologic effects/principles of mechanical ventilation. Emphasizes initiation, management, and weaning of ventilatory support. Prerequisite: RSPT 1213 Corequisite: RSPT 1262

RSPT 2325 - Cardiopulmonary Diagnostics

Credits: 3 (3 lecture, 1 lab). A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient. Prerequisite: RSPT 2255, RSPT 2310; must be placed into college-level reading, writing and math. Corequisite: RSPT 2233

RSPT 2353 - Neonatal/Pediatric Cardiopulmonary Care

Credits: 3 (3 lecture, 1 lab). A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: RSPT 2267

RSPT 2361 - Clinical - Respiratory Care Therapy/Therapist

Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1262 Corequisite: RSPT 2255

RSPT 2362 - Clinical-Respiratory Care Therapy/Therapist

Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2361; must be placed into college-level reading, writing and math. Corequisite: RSPT 2353

RSTO 1301 - Beverage Management

Credits: 3 (3 lecture). A study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods.

RSTO 1325 - Purchasing for Hospitality Operations

Credits: 3 (3 lecture). Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls and record keeping at each stage of the purchasing cycle.

RSTO 2301 - Principles of Food and Beverage Controls

Credits: 3 (3 lecture). A study of financial principle and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and internal and regulatory reporting procedures. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RTVB 1240 - Audio/Radio Production Practices

Credits: 2 (1 lecture, 3 lab). Introduces through practical hands-on experience the equipment and procedures used in multitrack recording. Includes basic tracking, simple overdubs and operation of specific recording equipment commonly found in audio facilities, mixing, and equalization. Prerequisite: MUSC 1427, MUSC 1331; must be placed into GUST 0342, ENGL 0310 or 0349 and MATH 0308 in math. Corequisite: MUSC 2427

RTVB 1309 - Audio/Radio Production I

Credits: 3 (2 lecture, 4 lab). Concepts and techniques of sound production including basic recording, mixing, and editing techniques. Prerequisite: Must be placed into college-level reading, writing and math.

RTVB 1321 - TV/Video Field Production

Credits: 3 (2 lecture, 4 lab). Video field camera set up and operation for broadcast and digital media. Incorporates basic editing and field audio techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 1329 - Scriptwriting

Credits: 3 (2 lecture, 4 lab). Writing scripts for film and electronic media. Emphasizes format and style for commercials, public service announcements, promos, news, and documentaries. Prerequisite: ENGL 1301

RTVB 2164 - Practicum (or Field Experience) - Radio and Television

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: FLMC 1304, FLMC 2333, FLMC 2344

RTVB 2232 - Audio/Radio Production Practices II

Credits: 2 (1 lecture, 3 lab). Topics include special effects, automated overdubbing, operation of specific recording equipment commonly found in large format multi-track audio facilities, mixing, and equalization. Complete one recording project using the lab time and facilities Prerequisite: MUSC 2427, MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSC 2447

RTVB 2282 - Cooperative Education - Radio and Television Broadcasting Technology/Technician
Credits: 2 (1 lecture, 10 external). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: MUSC 2447; must be placed into college-level reading, writing and math.

RTVB 2330 – Film and Video Editing
Credits: 3 (2 lecture, 4 lab). Film and broadcast editing for the preparation and completion of shorts, trailers, documentaries, and features. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 2337 – TV/Video Production Workshop I
Credits: 3 (2 lecture, 4 lab). Application and design of video productions in location or studio shoots with real deadlines and quality control restrictions. Prerequisite: Must be placed into college-level reading, writing and math.

RTVB 2340 Portfolio Development
Credits: 3. (2 lecture, 4 lab). Preparation and presentation of a portfolio suitable for employment in the media industry. This course is intended to be taken in the last semester.

RTVB 2343 - Commercial Recording Techniques
Credits: 3 (2 lecture, 4 lab). Student will operate audio production and editing equipment, coordinate and direct music production projects from booking to post-production, and characterize the music industry and surrounding labor market. This class provides a capstone experience during which the student will use all of the skills acquired throughout this program. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2447; must be placed into college-level reading, writing and math.

RTVB 2386 - Internship - Radio and Television Broadcasting
Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: RTVB 1317 and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SCIT 1320 - Physics for Allied Health
Credits: 2 (2 lecture, 2 lab). An introduction to physics with emphasis on applications to health related fields of study. Topics include forces, motion, work and energy, fluids, heat, electricity and magnetism, wave motion, sound, electromagnetic radiation, and nuclear radiation. Prerequisite: Must be placed into college-level reading, writing and math.

SCIT 1407 - Applied Human Anatomy and Physiology I
Credits: 4 (4 lecture, 1 lab). An applied systematic study of the structure and function of the human body designed for students considering a career in the health field. Includes anatomical terminology, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and endocrine. Emphasis on homeostasis. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1408 - Applied Human Anatomy and Physiology II

Credits: 4 (4 lecture, 1 lab). A continuation of Applied Human Anatomy and Physiology I designed for students considering a career in the health field. The following body systems are included: digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Emphasis is on homeostasis. Prerequisite: SCIT 1407; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1414 - Applied General Chemistry I

Credits: 4 (3 lecture, 3 lab). Applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. Addresses supporting chemical theories including atomic and molecular structure, nomenclature, chemical reactivity, gas laws, acids and bases, and solutions. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1418 - Applied Physics

Credits: 4 (3 lecture, 3 lab). Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics. Prerequisite: MATH 1314 or Department Approval; must be placed into college-level reading, writing and math.

SCWK 1321 - Orientation to Social Services

Credits: 3 (3 lecture). Introduction to the basic concepts, information, and practices within the field of social services. Topics include a survey of the historical development of social services; social, legal, and clinical definitions; and review of current information regarding indications for and methods of treatment and/or services. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SGNL 1401 - Beginning American Sign Language I

Credits: 4 (3 lecture, 2 lab). Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. Student must complete the course with a B or better. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SGNL 1402 - Beginning American Sign Language II

Credits: 4 (3 lecture, 2 lab). Introduction to American Sign Language covering finger spelling, vocabulary, and basic sentence structure in preparing individuals to interpret oral speech for the hearing impaired. Student must complete the course with a B or better. Prerequisite: 1307, SLNG 1311, SGNL 1401; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SGNL 2301 - Intermediate American Sign Language I

Credits: 3 (2 lecture, 2 lab). Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Student must complete the course with a B or better. Prerequisite: SLNG 1311, SGNL 1401, SGNL 1402; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SGNL 2302 - Intermediate American Sign Language II (4th semester ASL)

Credits: 3 (2 lecture, 4 lab). Review and application of conversational skills in American Sign Language; interpreting from signing to voice as well as from voice to signing. Introduction to American Sign Language literature and folklore. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SLNG 1311; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1166 Practicum (or Field Experience) - Sign Language Interpretation and Translation

Credits: 1 (10 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

SLNG 1207 Intra-lingual Skills Development for Interpreters

Credits: 2 (2 lecture, 1 lab). Development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistic and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multi-tasking, vocabulary, and cultural literacy.

SLNG 1211 Fingerspelling & Numbers

Credits: 2 (2 lecture, 1 lab) Development of expressive and receptive skills in fingerspelling and numbers. Receptive skills focus on whole word phrase recognition and fingerspelling/number comprehension in context. Expressive skills focus on the development of speed, clarity, and fluency. Prerequisite: SGNL 1401 or equivalent; Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1248 - Vocabulary Development for Interpreters

Credits: 2 (2 lecture, 1 lab). A course in vocabulary building in English and American Sign Language for interpreters. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1317 - Introduction to the Deaf Community

Credits: 3 (3 lecture). An overview of the physical, educational, social, and cultural implications within the context of a deaf or hard-of-hearing individual's personal life, family, and community in today's multicultural world. Emphasis on current educational and vocational programs, legislation, technology, oppression, and other issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1321 - Introduction to the Interpreting Profession

Credits: 3 (3 lecture). An overview of the field of American Sign Language (ASL)/English interpretation. Provides a historical framework for the current principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1350 - Sign-To-Voice

Credits: 3 (2 lecture, 2 lab). Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peer evaluation.

SLNG 2266 Practicum (or Field Experience) - Sign Language Interpretation and Translation

Credits: 2 (15 external). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

SLNG 2301 - Interpreting I

Credits: 3 (2 lecture, 2 lab). An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2302 - Interpreting II

Credits: 3 (2 lecture, 2 lab). Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, SLNG 1321, SLNG 2401; Department Approval. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2303 Transliterating

Credits: 3 (2 lecture, 4 lab). A practice oriented course designed to develop skills necessary for rendering spoken English to a signed English format and signed English to spoken English.

SLNG 2311 - Interpreting in Specialized Setting

Credits: 3 (2 lecture, 4 lab). Overview of interpreting/transliterating in special settings (e.g., religious, artistic, medical, legal, mental health). Reinforcing interpreting theories and techniques in relation to special settings.

SLNG 2315 - Interpreting in Educational Settings

Credits: 3 (2 lecture, 2 lab). Overview of education programs (K-12 and post-secondary), focusing on the roles and skills of the interpreter as a member of the educational team. Includes current practices, communication methods, legislation, trends, and ethical issues. Introduces resources for content-specific vocabulary Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2331 - Interpreting III

Credits: 3 (2 Lecture, 4 lab). A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, 1311, SLNG 1321, SLNG 2401, SLNG 2402; Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2371 - Specialized Signs

Credits: 3 (2 lecture, 2 lab). This course focuses on specialized sign language interpreting settings from source language into a target language of American Sign Language and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 2301.

Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SOCI 1301 - Introduction to Sociology

Credits: 3 (3 lecture). A survey course which focuses on the nature of human groups in American and world societies, their social and cultural adaptations, and the impact which various social processes may have on their social organization and social change. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SOCI 1306 - Social Problems

Credits: 3 (3 lecture). An inquiry into selected current social problems with specific reference to their original development, and suggested solutions. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SOCI 2301 - Marriage & the Family

Credits: 3 (3 lecture). This course is a sociological analysis of marriage and family relations based on fundamental principles in the discipline. Both theory and current research findings are covered. Areas explored include family dynamics, interpersonal relations, demographic trends, and conflict management. Current and classical research is reviewed and applied. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SOCI 2319 - Minority Studies

Credits: 3 (3 lecture). An in depth theoretical and practical Sociological analysis that examines historical and contemporary minority issues, including race and ethnicity, using historical and modern demographic data such as life span, birth rates, marriage patterns, business ownership, educational attainment, migration data, and assimilation/pluralism patterns as well as the impact of economic and social globalization on minorities in the United States and the world. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SOCI 2336 - Criminology

Credits: 3 (3 lecture). An analysis of the social dimensions of crime as a form of deviant behavior; the nature and extent of crime; classic and modern theories; the role of the police and the courts, group and community oriented programs, with an evaluation of prevention, control, and treatment programs. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPAN 1411 - Beginning Spanish I

Credits: 4 (3 lecture, 2 lab). Introduction to the Spanish language and Hispanic culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 1412 - Beginning Spanish II

Credits: 4 (3 lecture, 2 lab). Continuation of SPAN 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: SPAN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Spanish within the last two years; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2311 - Intermediate Spanish I

Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning Spanish. Presentation of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in Spanish. Prerequisite: SPAN 1412 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2312 - Intermediate Spanish II

Credits: 3 (3 lecture). Continuation of SPAN 2311. Special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in Spanish. Prerequisite: SPAN 2311 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2313 - Spanish for Native/Heritage Speakers I

Credits: 3 (3 lecture). Designed for Hispanic-American and other students from a Spanish speaking background. Emphasis on basic skills in reading, spelling, and composition. Credit will not be given for both SPAN 2313 and SPAN 2311. Prerequisite: test placement; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2315 - Spanish for Native/Heritage Speakers II

Credits: 3 (3 lecture). Continuation of SPAN 2313. Continued development of reading and writing skills and control of universal Spanish style. Prerequisite: SPAN 2313; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPCH 1311 - Introduction to Speech Communication

Credits: 3 (3 lecture). A survey course in the basic principles of oral communication. Includes the study of the use of the body and voice, the speaker-listener relationship, and preparation and delivery of platform speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 1315 - Public Speaking

Credits: 3 (3 lecture). Designed to develop proficiency in public speaking situations; emphasis on content, organization, and delivery of speeches for various occasions. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: SPCH 1311 or ENGL 1301 or Department Approval.

SPCH 1318 - Interpersonal Communication

Credits: 3 (3 lecture). A course designed to improve the student's effectiveness in small-group and one-to-one communication. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 1321 - Business and Professional Communication

Credits: 3 (3 lecture). Applies the techniques of oral communication to situations most common to business and professional people. Covers discussion methods, conference techniques, committee reports, instructions, lectures, and public speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 1342 - Voice and Diction

Credits: 3 (3 lecture). Training in the effective use of the voice and body. Includes study of the vocal mechanism and the phonetic alphabet; improvement of enunciation, pronunciation, and articulation. Recommended for non-native speakers. Open to all students. Required for speech majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 2333 - Discussion and Small Group Communication

Credits: 3 (3 lecture). Examines the dynamics of small group communication and discussion situations, including body language. Open to all students, required of majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 2335 - Argumentation and Debate

Credits: 3 (3 lecture). Study of principles of argumentation and debate. Practice in preparing written and spoken arguments. Open to all students. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPCH 2341 - Oral Interpretation

Credits: 3 (3 lecture). Cultivation of the art of oral presentation of literary forms, analysis of thought, development of imagination, communication of emotional values, and individual projects in interpretive reading. Open to all students. Required for speech majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a corequisite) and be placed into college-level writing (or take ENGL 0310/0349 as a corequisite).

SPNL 1291 - Special Topics in Spanish Language and Literature

Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SRGT 1361 - Clinical - Surgical Technology / Technologist

Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1371 - Sterile Processing

Credits: 3 (2 lecture, 2 lab). In-depth coverage of specialized surgical modalities in endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1372 - Comprehensive Anatomy and Physiology for the Surgical Technologist

Credits: 3 (3 lecture). Comprehensive study of the structure and function of human cells, tissues, and organ systems including integumentary, skeletal, muscular, and nervous system, endocrine, digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Fast-paced online course designed for the surgical technologist. Prerequisite: Department Approval; Admission to the program. Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1405 - Introduction to Surgical Technology

Credits: 4 (3 lecture, 3 lab). Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1409 - Fundamentals of Perioperative Concepts and Techniques

Credits: 4 (3 lecture, 3 lab). In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1441 - Surgical Procedures I

Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1405, SRGT 1409; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1442 - Surgical Procedures II

Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1441; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1463 - Clinical -Surgical Technology / Technologist

Credits: 4 (24 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: SRGT 1361; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1560 - Clinical - Surgical Technology / Technologist

Credits: 5 (25 external). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

SRGT 2130 - Professional Readiness

Credits: 1 (1 lecture, 1 lab). Transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status. A capstone experience may be included.

SRGT 2463 - Clinical - Surgical Technology / Technologist

Credits: 4 (17 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: SRGT 1463; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRVY 1301 - Introduction to Surveying

Credits: 3 (2 lecture, 4 lab). An overview of the surveying profession. The History, Civilization, of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

SRVY 1341 - Land Surveying

Credits: 3 (2 lecture, 4 lab). A study of the measurement and determination of boundaries, areas, shapes, location through traversing techniques. Instruction in a variety of adjustment methods using programmed and non-programmed hand-held calculators and computers. Methods of traversing and adjustment of errors according to prevailing and applicable professional standards. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRVY 2348 - Plane Surveying

Credits: 3 (2 lecture, 4 lab). Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

TECA 1303 - Families, School, & Community

Credits: 3 (3 lecture). A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. The course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1311 - Educating Young Children

Credits: 3 (3 lecture). An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the national Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1318 - Wellness of the Young Child

Credits: 3 (2 lecture, 3 lab). A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1354 - Child Growth and Development

Credits: 3 (3 lecture). A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence. (Cross-listed with PSYC 2308) Prerequisite: Must be placed into college-level reading and college-level writing.

TECM 1301 - Industrial Mathematics

Credits: 3 (3 lecture). Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

TECM 1303 - Technical Calculations

Credits: 3 (3 lecture). Specific mathematical calculations required by business, industry, and health occupations.

TRAI 1271 - Technology for Translation & Interpretation

Credits: Credit 2 (1 lecture, 2 lab). This course is an introduction to the equipment and electronic tools used by professional translators and interpreters throughout their workflow. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1272 - Terminology Management and Research

Credits: 2 (1 lecture, 2 lab). Basic terminology in the fields of medicine, law, computers, business, and technical fields will be covered. Students will learn how to ensure accuracy for highly specialized fields for which terminology may not yet be available. Different tools and techniques to find, store, and manage search results will be discussed. Prerequisite: TRAI 1371; Must be placed into college-level reading and college-level writing.

TRAI 1371 - Fundamentals of the Theory & Practice of Translation & Interpretation

Credits: 3 (3 lecture). This course, taught in English, is an introduction to translation. Its goal is to teach students the basic principles of the theory of translation, the linguistic and cultural aspects of language transfer, the main techniques and strategies for translating and interpreting as well as the differences between English and target language regarding grammar, syntax, punctuation, and style. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1372 - Writing, Editing & Revising for Translation

Credits: 3 (3 lecture). This course is designed for translators, editors and writers of business and other specialized and technical documents. Learning activities focus on requirements for the production of final English drafts of good quality. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1373 - Intercultural Communication

Credits: 3 (3 lecture). This course focuses on important issues of global, national, regional and gender identities seen through the prism of translation activity. It scrutinizes the linguistic and cultural resources employed by translators to assimilate, channel, exploit, and localize discourses and voices in their respective environments. The focus will be on such areas as business, medical and legal areas as well as technical environments. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1374 Introduction to General Linguistics

Credits: 3 (3 lecture). This course will familiarize students with the fundamental features and nature of human language, its structure, development, and its place in the society. It also introduces linguistics as a science, its history and methodology.

TRAI 2271 - Fundamentals of Specialized Written Translation (Sci-Tech)

Credits: 2 (1 lecture, 2 lab). This course focuses on translation of scientific and technical texts from source language (Spanish//Chinese/Russian/French) into the English language and vice versa, presenting linguistic and cultural issues affecting meaning transfer from one language to another. Prerequisites: TRAI 1371, 1372, 1271, 1272.

TRAI 2272 - Introduction to Interpreting II (Medical)

Credits: 2 (1 lecture, 2 lab). This course focuses on interpretation of medical content, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisites: TRAI 1371, 1373.

TRAI 2273 - Introduction to Interpreting III (Simultaneous)

Credits: 2 (1 lecture, 2 lab). This course focuses on techniques and skills required for simultaneous interpretation including organizing and comprehending messages simultaneously, prediction skills, bilingual proficiency and multiculturalism, concentration, retention, and décalage. Students will practice this mode using scripts based on various scenarios Prerequisite: TRAI 1371, 1373.

TRAI 2275 - Advanced Project in Translation

Credits: 2 (1 lecture, 3 lab). Students will conduct a translation project demonstrating their ability to apply all the skills and tools taught in the Program. Prerequisite: Must be placed into college-level reading and college-level writing. Prerequisite: TRAI 1371, 1372, 1271, 1272, 2271, 2277, 2278.

TRAI 2277 - Fundamentals of Specialized Written Translation (Legal)

Credits: 2 (1 lecture, 2 lab). This course focuses on translation of legal texts from English into a target language (Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: TRAI 1371, 1372, 1271, 1272.

TRAI 2278 - Fundamentals of Specialized Written Translation (Medical)

Credits: 2 (1 lecture, 2 lab). This course focuses on translation of medical texts from English into a target language (Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: TRAI 1371, 1372, 1271, 1272.

TRAI 2279 - Introduction to Interpreting I (Legal)

Credits: 2 (1 lecture, 2 lab). This course focuses on interpretation of legal content, including court interpreting, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: TRAI 1371, 1373.

TRAI 2375 Localization and Audiovisual Translation

Credits: 3 (2 lecture, 2 lab). In this course, students will learn how to translate and localize written texts, websites, software, mobile apps, and games. They will pay special attention to the cultural adaptation of content. They will also learn how to transcribe audio/video content and to translate audio/video content. Prerequisites: TRAI 1371, 1372, 2271.

TRAI 2376 – Internship – Translation & Interpretation

Credits: 3 (9 lab). Practical, general workplace training supported by an individualized learning plan developed jointly by the internship site supervisor, college and student. This will serve as the capstone course for the award. Prerequisite: Must complete 75% of the program.

TRVM 1327 Special Events Design

Credits: 3. (3 lecture). The development of a special event from the conceptual stage through completion. Emphasis on industry terminology, factors to consider when planning a special event, and contingency plans.

VNSG 1122 - Vocational Nursing Concepts

Credits: 1 (1 lecture). Introduction to the nursing profession and its responsibilities. Includes legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1161 – Clinical - Licensed Practical / Vocational Nursing Training

Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1423

VNSG 1162 - Clinical - Licensed Practical / Vocational Nursing Training

Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1330

VNSG 1163 - Clinical - Licensed Practical / Vocational Nursing Training

Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1162; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1334

VNSG 1216 - Nutrition

Credits: 2 (2 lecture). Introduction to nutrients and the role of diet therapy in growth and development and in the maintenance of health. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1219 - Leadership and Professional Development

Credits: 2 (2 lecture). Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Prerequisite: VNSG 1122; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1227 - Essentials of Medication Administration

Credits: 2 (2 lecture, 1 lab). General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1238 - Mental Illness

Credits: 2 (2 lecture). Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1266 – Practicum (or Field Experience) – Licensed Practical / Vocational Nurse Training

Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1409 and VNSG 2331

VNSG 1267 - Practicum (or Field Experience) – Licensed Practical / Vocational Nurse Training

Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1266; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1410

VNSG 1320 - Anatomy and Physiology for Allied Health

Credits: 3 (3 lecture). Introduction to the normal structure and function of the body including an understanding of the relationship of body systems in maintaining homeostasis. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1330 - Maternal - Neonatal Nursing

Credits: 3 (3 lecture). Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1162

VNSG 1334 - Pediatrics

Credits: 3 (3 lecture). Study of childhood diseases and childcare from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1163

VNSG 1400 - Nursing in Health and Illness I

Credits: 4 (4 lecture). Introduction to general principles of growth and development, primary health care needs of the client across the life span, and therapeutic nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1409 - Nursing in Health and Illness II

Credits: 4 (4 lecture). Introduction to common health problems requiring medical and surgical interventions. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1266

VNSG 1423 - Basic Nursing Skills

Credits: 4 (3 lecture, 4 lab). Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1161

VNSG 2331 - Advanced Nursing Skills

Credits: 4 (2 lecture, 4 lab). Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1266

VNSG 2410 - Nursing in Health and Illness III

Credits: 4 (4 lecture). Continuation of Nursing in Health and Illness II. Further study of common medical-surgical health problems of the client including concepts of mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse. Prerequisite: VNSG 1409; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: VNSG 1267

WLDG 1191 - Special Topics in Welder/Welding Technologist

Credits: 1 (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 1391 - Special Topics in Welder/Welding Technologist

Credits: 3. (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

WLDG 1407 - Introduction to Welding Using Multiple Processes

Credits: 4 (2 lecture, 4 lab). Basic welding processes. Includes oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). Prerequisites/Corequisites: TECM 1301, WLDG 1313 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1413 - Introduction to Blueprint Reading for Welders

Credits: 3 (4 lecture). A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1428 - Introduction to Shielded Metal Arc Welding (SMAW)

Credits: 4 (2 lecture, 4 lab). An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs.

WLDG 1430 - Introduction to Gas Metal Arc Welding (GMAW)

Credits: 4 (2 lecture, 4 lab). A study of the principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1434 - Introduction to Gas Tungsten Arc (GTAW) Welding

Credits: 4 (2 lecture, 4 lab). An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs. Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1435 - Introduction to Pipe Welding

Credits: 4 (2 lecture, 4 lab). Introduction to the welding of pipe using the shielded-metal arc welding process, including electrodes selection, equipment setup, and safe shop practices. Emphasis on weld position 1G and 2G using various electrodes. Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1457 - Intermediate Shielded Metal Arc Welding (SMAW)

Credits: 4 (2 lecture, 4 lab). A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.

WLDG 2389 - Internship - Welding Technology/Welder

Credits: 3. (9 external). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

WLDG 2413 Intermediate Welding Using Multiple Processes

Credits: 4 (3 lecture, 2 lab). Instruction using layout tools and blueprint reading with demonstration and guided practices with some of the following welding processes: oxy-fuel gas cutting and welding, shield metal arc welding (SMAW), gas metal arc welding (GMAW), flux-cored arc welding (FCAW), gas tungsten arc welding (GTAW).

WLDG 2447 - Advanced Gas Metal Arc Welding (GMAW)

Credits: 4 (2 lecture, 4 lab). Advanced topics in GMAW welding, including welding in various positions and directions. Prerequisite: WLDG 1430; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2451 - Advanced Gas Tungsten Arc Welding (GTAW)

Credits: 4 (2 lecture, 4 lab). Advanced topics in GTAW welding, including welding in various positions and directions. Prerequisite: WLDG 1434; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2453 - Advanced Pipe Welding

Credits: 4 (2 lecture, 4 lab). Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes Prerequisite: WLDG 1435; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

COURSE DESCRIPTIONS – CONTINUING EDUCATION

This course listing has been carefully prepared to assure that all information is accurate and as complete as possible. Continuing Education courses are offered based on industry and market demand, and the college reserves the right to make changes, which may result in additions or deletions from the information in the listing content during any given term. Those changes will be published in the HCC Course Schedule for the current term.

ACNT 1013 - Quickbooks, Introduction CEU: 4.8
Use of the computer to develop and maintain accounting records and to process common business applications for managerial decision making.

ACNT 1092 - SAP FICO Financial Training CEU: 4.8
This course undergoes a study of accounting concepts and their application in transaction analysis and financial statement preparation. Emphasis on the accounting cycle for service and merchandising enterprises.
The accounting cycle for service and merchandising enterprises.

ACP 1000 - Teacher Certification I CEU: 4.9 This course provides an overview of developmental concepts from birth through adolescence. It also examines the interplay of individual differences, relationships among cognitive, social, emotional, and cultural and diversity aspects of learning and assessment.

ACP 1001 - Human Growth & Dev. CEU: N/A This module is designed to teach pre-service teachers to translate developmental theories into practical solutions to become engaged professionals who nurture the development of young people.

ACP 1002 - Curriculum & Instruction CEU: N/A This module focuses on curriculum and instruction. Program participants will learn national and state standards, how to examine objectives closely and think about philosophy of homework, create a cooperative lesson, and use the lesson plan cycle to build a lesson.

ACP 1003 - Assessment CEU: N/A This module focuses on the importance of assessment in teaching and learning.

ACP 1004 - Critical Thinking CEU: N/A This module is designed to develop program participants' understanding of critical thinking as well as the importance of planning and teaching of critical thinking. Program participants will engage in critical thinking activities throughout the module to increase their awareness of instructional strategies and resources (including technological) that can be utilized.

ACP 2000 - Teacher Certification II CEU: 4.9 The course focuses on research-based strategies in elementary and secondary classrooms designed to create positive learning environment in culturally diverse settings. Strategies that promote the organization and management of classrooms, the response to disruptive behaviors, and the improvement of instruction are included.

AERM 1001 - Unmanned Aircraft System Remote Pilot in Command (Drone Technology) CEU: 3.2
This course provides an overview of aviation including the history of aviation, the mechanic's roles and duties and nomenclature of aircraft and safety.

BMGT 1009 - Project Management Basics CEU: 4.8 Students will learn critical path methods for planning and controlling projects. Includes time/cost tradeoffs, resource utilization, stochastic considerations, task determination, time management, scheduling management, status reports, budget management, customer service, professional attitude, and project supervision.

BMGT 1091 - Lean Six Sigma Green Belt CEU: 4.8 This Lean Six Green Belt course is designed for students who wants to learn about, and become confident in using Lean and Six Sigma tools to decrease waste and implement process improvements. The emphasis of this course is Lean, Six Sigma tools and the DMAIC Cycle.

BMGT 1091 - SAP End User Applications CEU: 4.8 Students will take a hands-on review of the major areas of human resources as illustrated through using PeopleSoft enterprise resource software applications.

BMGT 1092 - SAP Sales and Distribution CEU: 4.8 This course will teach the students how to implement large-scale Enterprise Systems, concentrating on Sales and Distribution. This class covers enterprise structure, quote to cash full cycle experience and integration with various other Systems, Applications and Products (SAP) module including FICO, MM, PP, and others.

BMGT 2006 - Project Management Professional Exam Prep CEU: 3.5 This course helps prepare students for the Project Management Institute's PMP certification exam. HCC's exam prep course covers the project management framework, context and process in accordance with the PMBOK latest edition.

CBFM 1007 - Stationary Engineering - 2nd Grade License Review CEU: 8.0 This course covers basic boiler operation with emphasis on high pressure and low pressure systems.

CBFM 1021 - Industrial Scaffolding & Rigging CEU: 8.0 Students will become familiar with elevated work situations including ladders, rigging, scaffolding, work platforms, and aerial lifts. Also covers personal protective equipment.

CBFM 1021 - Industrial Scaffolding CEU: 8.0 Elevated work situations including ladders, rigging, scaffolding, work platforms, and aerial lifts. Also covers personal protective equipment.

CDEC 1017 - Child Development Associate I Bilingual CEU: 4.8 This course is based on the requirements for the Child Development Associate credential (CDA). Topics include CDA overview, observation skills, and child growth and development. The four functional areas of study are creative, cognitive, physical, and communication.

Basado en los requisitos para la Credencial de Asociado en Desarrollo Infantil (CDA). Los temas incluyen la descripción general de CDA, habilidades de observación y crecimiento y desarrollo infantil. Las cuatro áreas funcionales de estudio son creativas, cognitivas, físicas y comunicación.

CDEC 1017 - Child Development Associate I CEU: 4.8 This course is based on the requirements for the Child Development Associate credential (CDA). Topics include CDA overview, observation skills, and child growth and development. The four functional areas of study are creative, cognitive, physical, and communication.

CDEC 2022 - Child Development Associate II CEU: 4.8 This course is a continuation of the study of the requirements for the Child Development Associate National (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Prerequisite: CDA I.

CEC 1160 - Nitrous Oxide Sedation Monitor CEU: 0.0 This course will prepare dental auxiliary personnel in the specific area of nitrous oxide monitoring for the state examination as mandated by the Texas State Board of Dental Examiners.

CEC 1216 - Building a Timeless Wardrobe CEU: 0.0 In this Style Theory Workshop students will learn how to build their own timeless wardrobe while defining their own personal style as a basis.

CEC 1315 - Strategies for 50+ Jobseekers CEU 0.0 Participants training will learn strategies needed to find full-time employment in today's job market. Coaching provides job search guidance including highlighting skills training opportunities to upgrade capabilities.

CEC 7159 - Intro to Fablab CEU: 0.0 This course offers a general introduction to the Fabrication Lab, computer and equipment access, and safety and access rules. Students will have access to the Fabrication Lab for one month with general help and use of equipment. Specific courses may be needed to run certain equipment in the Lab. For students and professionals. Not allowed for commercial work outside of general learning, prototyping, and design. Lab reserves the right to not allow certain types of use.

CEC 7614 - Computer Skills for Workplace CEU: 00 "Opportunity Workshops" teach various technology skills to enhance student ability to function in a work setting using a computer. Students will be introduced and provided tips for working in various Microsoft and Windows applications.

CJLE 1006 - Basic Peace Officer I CEU: 17.6 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer II, III, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Training Academy.

CJLE 1012 - Basic Peace Officer II CEU: 17.6 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, III, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Academy.

CJLE 1018 - Basic Peace Officer III CEU: 17.6 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, IV, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Academy.

CJLE 1024 - Basic Peace Officer IV CEU: 17.6 Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, III, and V (supplement) to satisfy the Texas Commission on Law Enforcement approved Basic Peace Officer Training Academy.

CMED 1110 - Adult Ballet for Exercise CEU: 0.0 Discover your inner ballerina. This class teaches basic ballet movements for strength, flexibility and grace. Enjoy a relaxed environment where everyone can develop at their own pace.

CMED 1111 - Yoga: Meditation & Movement CEU: 0.0 Discover the many benefits of yoga and bring calmness, stress reduction, and a feeling of well-being to your life. The structured yoga poses release tension and bring flexibility to the shoulders, neck, back, hips and legs. For beginners or experienced students. Wear loose-fitting clothes and bring your own yoga mat to class.

CMED 1112 - Flamenco I CEU: 0.0 Are you ready for a dance that is fiery, exciting, passionate and distinctive? Be a part of an ancient art form, moving to traditional music with flamenco dance. Master the foundational steps, practice basic footwork, and fall in love with moving to the music.

CMED 1113 - Adult Tap I CEU: 0.0 Are you ready to have some fun tapping on the dance floor? Come learn basic steps and tap routines that are perfect for beginner to intermediate learners.

CMED 1114 - Adult Tap 2 CEU: 0.0 Expand your tap portfolio by adding new moves to your routine while improving your technique and presentation.

CMED 1115 - Adult Jazz for Exercise CEU:0.0 The original dancing workout! Have a great time while taking care of yourself with a jazz dance fitness workout.

CMED 1116 - Adult Jazz II CEU: 0.0 Are you ready to take your jazz dance skills to the next level? Learn more advanced techniques and sharpen your dance skills with instructor Wendy Reeves.

CMED 1117 - Ballroom Dancing CEU: 0.0 Do you want to learn social dance techniques in a stress free and fun atmosphere? Here you will be introduced to basic steps and fun patterns of ballroom dancing while learning to step in sync with the music and connect basic patterns for a social dancing environment. While learning the basics you will develop your lead or follow skills for successful partnering on the dance floor. Singles as well as couples are welcome.

CMED 1118 - Country & Western Dance CEU: 0.0 Are you ready to scoot your boots on the dance floor? In this class you will be instructed in country western two-step, Waltz and Polka dance steps. After this class you will be able to dance without worry that you are on the wrong foot in social settings. Partners are encouraged but not necessary.

CMED 1119 - Middle Eastern Dance (1 & 2) CEU: 0.0 Discover one of the most beautiful dances around the world! This all-inclusive dance style invites all sizes, shapes and ages to join the fun of belly dancing.

CMED 1170 - Group Piano CEU: 0.0 Develop your musical talent with the piano. As a group learn the fundamentals of note reading and translate to the keyboard. Learn how to play simple tunes and chord patterns.

CMED 1171 - Group Guitar CEU: 0.0 Ready to get started with the guitar! Students will learn in a group setting focusing on the fundamental of playing a guitar. No prior skill or training is necessary. Students will learn basic chords, scales and technique. Bringing your personal guitar is required.

CMED 1175 - Canaan & Tribal Israel in the Egyptian Period CEU: 0.0 This workshop covers the period between 1500 BCE to 1000 BCE. Participants will trace the geography surrounding the Israelite migration from Egypt to Canaan. People groups of pre-Israelite Canaan will be introduced and class will discuss the role of the Egyptian superpower in this period.

CMED 1176 - Israel & Judah in Pre-Exilic Assyrian Period CEU: 0.0 This seminar will cover the period from approximately 1000 BCE - 722 BCE. We will discuss the development of the Israelite kingdom state and its division into two distinct kingdoms. The nature and expanse of the Assyrian Empire will also be reviewed.

CMED 1177 - The Exile of Judah & Babylonian Period CEU: 0.0 This informative session addresses the period from 722 BCE - 539 BCE including the extent and practices of the Babylonian Empire. The capture and exile of Judah will be covered, as will the conditions of the exilic period in both Israel and Babylon.

CMED 1178 - Israel After the Edict of Cyrus in the Persian Period CEU: 0.0 This session will address the period from 539 BCE until approximately 400 BCE. Includes discussion over the rise of Cyrus and the Persian Empire, and the release of the Jewish people to return to Judea and rebuild their Temple and society.

CMED 1179 - Judea & the Greeks in Intertestamental Period CEU: 0.0 This seminar will address the period from 400 BCE to 60 BCE and life in Judea during the rise and fall of the Greek Empire. It will include the tetrarchy, the Maccabean Wars and the Hasmonean dynasty and the development of Judaism.

CMED 1180 - Apostolic Period Under Roman Empire CEU: 0.0 This session of the history of the Biblical Era will address the period from 60 BCE to 75 CE and the conquest of Judea by the Romans. Subsequent activity during the Pax Romana until the destruction of the Jerusalem temple and the siege of Masada. The Jewish diaspora and the rise and spread of Christianity into the Roman west will also be reviewed.

CMED 1181 - Personal Money Management CEU: 0.0 Participants will be presented the basics of personal finance to build a foundation for financial stability. Topics will include understanding the emotions that make money management difficult, making sure your money reflects your values, how to set and achieve financial goals, how to budget and track expenses effectively, and how to navigate financial technology.

CMED 1182 - How to Improve My Credit CEU: 0.0 Participants will learn how the credit reporting and scoring system works and how to improve their own scores in a lasting and foundational way rather than using quick fixes. Techniques on how to manage and eliminate your debt will be discussed.

CMED 1183 - Prepare for Retirement CEU: 0.0 Participants will learn that preparing for retirement is more than just contributing to your 401(k), it is developing savings as a personal habit, thinking about lifestyle and values, and understanding the tools that are available to you. In this workshop participants will discuss emergency savings, IRAs, Employer-sponsored Retirement Plans and more.

CMED 1187 - MS Word Basics CEU: 0.0 This course designed to enhance knowledge of computer application specific software (Microsoft Word). This course is designed to improve student proficiency within word processing software.

CMED 1188 - Spreadsheets-Excel Basics CEU: 0.0 This course is designed to enhance knowledge of computer application specific software specifically the basics of spreadsheets (Microsoft Excel). This course is designed to improve student proficiency within office application software.

CMED 1201 - Digital Living for Seniors CEU: 0.0 Audience ages 50+ will engage in ways to become more comfortable with their own digital tools including iPhone, iPad, social media and personal computer applications.

CNBT 1001 - Introduction to the Construction Industry CEU: 7.2 This course offers an overview of the Construction Industry.

CNBT 1009 - Basic Construction Management CEU: 4.8 Basic Construction Management is the first of two concurrent modules of HCC's Construction Project Management Course. Participants experience an interactive program that explores the critical areas of project management that new and seasoned construction project managers tackle on a daily basis. This module will cover organizing and leading a project and project and steps to closeout.

CNBT 1011 -

Construction Materials and Methods I CEU: 4.8
This course will cover a wide variety of subjects all relating directly to working in construction and carpentry. In addition to familiarizing you with safety issues including safe work practices and PPE, “CMM” will consider the use of measuring tools, an introduction to reading basic building plans, choice and use of both hand and power tools for general construction (developing sound basic skills), and the identification of construction materials including “green” and sustainable building materials and practices. The class will be capped with a carpentry project on which participants will be able to apply the skills they have learned.

CNBT 1016 - Construction Technology I CEU: 6.4
Introduction to site preparation foundations, form work, safety, tools, and equipment.

CNBT 1050 - Construction Technology II CEU: 6.4
Framing in residential and light commercial construction. Includes safety, tools, and equipment used in floor, wall, ceiling, and roof methods and systems.

CNBT 2044 - Construction Project Management CEU: 4.8
Construction Management II is the second of two concurrent modules of HCC's Construction Project Management Course. Participants experience an interactive program that explores the critical areas of project management that new and seasoned construction project managers tackle on a daily basis. This module covers Project cost estimation, project planning, Project cost control, and Project administration and construction law.

CNSE 1003 - Forklift Technician, Part I CEU: 0.7
This 7-hour series focuses on understanding the theory of forklift designs and functions, stability triangle, capacity and visibility requirements, safety operation for use of equipment, pre-shift operations, and working in fast pace logistics operations.

CNSE 1003 - Forklift Training Lab, Part II CEU: 0.7
This course provides information for training of forklift operators including forklift design, controls and instrumentation, comprehensive pre-use inspection, and forklift stability and factors affecting stability. Includes hands-on-training and demonstration of proficiency.

COMG 1000 - Basic English Language Skills CEU: 6.0
The purpose of this Basic English Language Skills course is to introduce students to workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has had very little or no exposure to the English language.

COMG 1001 - English Language Skills 1 CEU: 6.0
The purpose of this English Language Skills 1 course is to introduce students to workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has had very little or no exposure to the English language.

COMG 1004 - English Language Skills 2 CEU: 6.0
The purpose of this English Language Skills 2 course is to increase students' knowledge of workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has some level knowledge of the English language.

COMG 1005 - English Language Skills 3 CEU: 6.0
The purpose of this English Language Skills 3 course is to increase students' knowledge of workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has intermediate-level knowledge of the English language.

COMG 1007 - English Language Skills 4 CEU: 6.0
The purpose of this English Language Skills 4 course is to increase students' knowledge of workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has intermediate-level knowledge of the English language.

COMG 1008 - English Language Skills 5 CEU: 6.0
The purpose of this English Language Skills 5 course is to increase students' knowledge of workplace English skills. Oral and listening skills and conversational fluency are emphasized in everyday public and workplace communication. The instruction includes vocabulary, grammar, listening, pronunciation, writing, numeracy, and viewing exercises for practice. The course is for the adult learner who has intermediate-level knowledge of the English language.

COMG 1075 - Listening & Speaking Skills, Foundation CEU: 6.0
The purpose of this English Listening & Speaking Skills, Foundation course is to increase student's knowledge of academic and workplace English listening and speaking skills to differentiate between appropriate and inappropriate examples of listening and speaking skills; and demonstrate listening and speaking skills required by business and industry. These skills

COMG 1076 - Reading & Writing Skills, Foundation CEU: 6.0
The purpose of this English Reading & Writing Skills, Foundation course is to increase students' knowledge of academic and workplace English reading and writing skills.

COMG 1077 - Listening and Speaking Skills- Introductory CEU: 7.0
The purpose of this English Listening and Speaking Skills Introductory course is to increase students knowledge of academic and workplace English listening and speaking skills.

COMG 1078 - Reading and Writing Skills- Introductory CEU: 7.0
The purpose of this English Reading and Writing Skills, Introductory course is to increase students knowledge of academic and workplace English reading and writing skills. These skills are emphasized in everyday public and workplace communication to build structured writing tasks. The instruction includes grammar, vocabulary, and rhetorical objectives for practice through approaches based on the writing process. The course is for the adult learner who has low-intermediate level knowledge of the English language.

COMG 2070 - Listening and Speaking Skills- Intermediate CEU: 7.0 The purpose of this English Listening & Speaking Skills, Intermediate-level course is to increase students' knowledge of academic and workplace English listening and speaking skills. These skills are emphasized in everyday public and workplace communication to build structured listening and speaking tasks. The instruction includes vocabulary and pronunciation strands for practice through approaches based on diverse listening selections and conversational topics. The course is for the adult learner who has high-beginning level knowledge of the English language.

COMG 2071 - Reading and Writing Skills- Intermediate CEU: 7.0 The purpose of the English Reading and Writing Skills, Intermediate course is to increase students knowledge of academic and workplace English reading and writing skills. These skills are emphasized in everyday public workplace communication to build structured writing task. The instruction includes grammar, vocabulary, and rhetorical objectives for practice through approaches based on the writing process. The course is for the adult learner who has intermediate level knowledge of the English language.

COMG 2072 - Pronunciation Skills-Intermediate CEU: 4.8 The purpose of this English Pronunciation Skills, Intermediate-level course is to guide improvement of pronunciation skills for job success and professional development. Emphasis will be placed on engaging activities and a communicative, interactive approach to refine listening and self-monitoring skills.

CPMT 1049 - Network + Certification CEU: 6.4 Students will gain understanding of networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations.

CRPT 1001 - Basic Framing CEU: 4.8 Students will gain knowledge and skills required to erect wood frame structures with emphasis on layout and construction of floors, walls, and roofs. Includes safety procedures for using hand and power tools and structural materials.

CRPT 1029 - Introduction to Carpentry CEU: 12.5 This course provides an introduction to the carpentry trade including safety, tools, equipment, terminology, and methods.

CVOP 1013 - Professional Truck Driver I CEU: 12.6 Overview of the State of Texas Class A Commercial Drivers License written test. Includes preparation for mastery of the Commercial Drivers License written examination, general truck driving skills with hands-on component, and instruction coordinated with the Department of Transportation.

CVOP 1040 - Professional Truck Driver II CEU: 16.0 A continuation of Professional Truck Driver I. General truck driving with hands-on skill development and instruction coordinated with the Department of Transportation.

CVTT 2000 - EKG Update CEU: 0.8 Students will undergo intensive training to meet continuing education and/or review requirements associated with professional licensure or certification.

DFTG 1040 - AutoCAD I CEU: 4.8 This course covers CAD equipment, software selection and interface; setting up a CAD workstation; upgrading a computer to run advanced CAD software; storage devices; storing, retrieving, back-up and sharing databases; file servers and local area networks (LANs); and transferring drawing files over the Internet.

DFTG 2004 - Computer Assisted Drafting and Design II CEU: 3.2 Two- and three-dimensional drawings using three-dimensional display options and specifying user-defined coordinate systems.

DFTG 2011 - AutoCAD II CEU: 3.2 Students will learn Computer Aided Drafting (CAD) package and knowledge necessary to perform specific operations in a particular occupational setting.

ECRD 1011 - Electrocardiography (EKG) CEU: 6.4 This course covers fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities.

ECRD 1091 - ECG Rhythm Strip Analysis for the Healthcare CEU: 3.2 ECRD 1091 is designed for students desiring knowledge of EKG telemetry monitoring. Theory includes basic understanding of the electrophysiology and hemodynamics of the heart, EKG recording techniques, rhythm analysis, and recognition of arrhythmias and cardiac emergencies. Emphasis is on interpretation, appropriate interventions by the cardiac technician and professionalism and patient's rights in the healthcare setting.

ECRD 1091 - EKG Lab 1, 12-Lead CEU: 3.2 Students will gain an understanding of theory and application of patient assessment and history, vital signs, documentation, and performing a basic 12-lead and 3-lead electrocardiograph with an emphasis on patient preparation, and correct lead placement.

ECRD 1091 - EKG Lab 2, Stress Testing CEU: 2.4 This course covers principles and procedures of stress testing and Holter monitoring. Emphasis is on patient preparation and instruction, correct lead placement, blood pressure monitoring, and appropriate intervention by the cardiac technician. Clinical significance of abnormalities is discussed.

ELPT 1011 - Electrical Technician I Bilingual CEU: 8.0 This course covers basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Este curso abarca la teoría básica y la práctica de los circuitos eléctricos. Incluye cálculos aplicados a corriente alterna y corriente continua.

ELPT 1011 - Electrical Technician I CEU: 8.0 This course covers basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

ELPT 1029 - Electrical Technician II Bilingual CEU: 8.0 Students will learn wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

Los estudiantes aprenderán métodos de cableado para viviendas unifamiliares y multifamiliares. Incluye cálculos de carga, dimensionamiento de la entrada de servicio, técnicas correctas de conexión a tierra y los procedimientos de seguridad asociados.

ELPT 1029 - Electrical Technician II CEU: 8.0 Students will learn wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures.

ELPT 1041 - Electrical Technician III (Motor Controls) CEU: 8.0 This course covers basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current.

Este curso abarca la teoría básica y la práctica de los circuitos eléctricos. Incluye cálculos aplicados a corriente alterna y corriente continua.

ELPT 1041 - Motor Control CEU: 8.0 This course covers operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations.

ELPT 2019 - Programmable Logic Controllers CEU: 8.0 In this course, students will learn fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls.

EMSP 1050 - ECG 12-Lead Interpretation CEU: 2.4 Students will learn interpretation of 12-lead electrocardiograms (ECG) to identify dysrhythmias; axis deviation; and myocardial ischemia, injury, and infarction. Clinical significance of abnormalities is discussed.

ENTC 1047 - Safety and Ergonomics CEU: 6.4 Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues.

EPCT 1051 - Introduction to Six Sigma in Manufacturing CEU: 2.4 Quality assurance/quality control procedures used to confirm viability and confidence of sample results or procedures. Emphasis on documentation, blank and check sample (spike) preparation, and control tables.

FIRS 1001 - Firefighter Certification I CEU: 9.6 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1003 - Firefighter Agility & Fitness CEU: 3.2 Physical ability testing methods. Rigorous training in skills and techniques needed in typical fire department physical ability tests.

FIRS 1007 - Firefighter Certification II CEU: 11.2 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1013 - Firefighter Certification III CEU: 8.0 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1019 - Firefighter Certification IV CEU: 6.4 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1023 - Firefighter Certification V CEU: 9.6 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1029 - Firefighter Certification VI CEU: 8.0 One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

FIRS 1033 - Firefighter Certification VII CEU: 11.2
One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100.

GISC 1011 - GIS, Introduction CEU: 6.4
Introduction to Geographic Information Systems (GIS) teaches the basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. During the course of this class, students will be exposed to data models and structures, geographic data input, data manipulating as well as data storage. Furthermore, students will have hand on experience with GIS operations.

HART 1005 - Air Conditioning Technician II CEU: 8.0
Students will gain an understanding of the study and practical application of air conditioning principles, including air properties, maintenance operations, thermodynamics, and compressors.

HART 1038 - Air Conditioning Technician I CEU: 8.0
This course provides an introduction to HVAC principles, terminology, tools, and skills.

HART 1041 - Air Conditioning Technician, Bilingual CEU: 16.0
This course provides an introduction to HVAC principles, terminology, tools, and skills. In addition, students will gain an understanding of the study and practical application of air conditioning principles, including air properties, maintenance operations, thermodynamics, and compressors.

Este curso proporciona una introducción a los principios, la terminología, las herramientas y las habilidades de HVAC. Además, los estudiantes comprenderán el estudio y la aplicación práctica de los principios del aire acondicionado, incluidas las propiedades del aire, las operaciones de mantenimiento, la termodinámica y los compresores.

HART 1041 - Air Conditioning, Bilingual CEU: 16.0
This course provides an introduction to HVAC principles, terminology, tools, and skills. In addition, students will gain an understanding of the study and practical application of air conditioning principles, including air properties, maintenance operations, thermodynamics, and compressors.

Este curso proporciona una introducción a los principios, la terminología, las herramientas y las habilidades de HVAC. Además, los estudiantes comprenderán el estudio y la aplicación práctica de los principios del aire acondicionado, incluidas las propiedades del aire, las operaciones de mantenimiento, la termodinámica y los compresores.

HITT 1003 - Medical Terminology II CEU: 4.8
Students will engage in a continuation of the study of medical terms through work origin and structure, abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

HITT 1005 - Medical Terminology I CEU: 3.2
This course is a study of medical terms through word origin and structure. Introduction to abbreviations and symbols, surgical and diagnostic procedures, and medical specialties.

HITT 1011 - Health Information Systems CEU: 4.8
This course provides an introduction to health IT standards, health-related data structures, software applications, and enterprise architecture in health care and public health.

HITT 1013 - Insurance Coding CEU: 4.8
Provides skills and knowledge in the medical records field for ICD-9 and CPT coding of insurance forms for reimbursement of medical service. Textbook required. Prerequisite: Medical Terminology.

HITT 2000 - HIPAA Compliance CEU: 0.8
Short term class covering various aspects of the Health Insurance Portability and Accountability ACT (HIPAA).

HITT 2046 - Advanced Medical Coding CEU: 4.8
This course provides an in depth, intensive coverage of ICD and CPT coding by medical specialty, conventions, guidelines and principles as they apply to accurate coding of complex medical, surgical cases and procedures.

HRPO 1011 - Human Relations CEU: 4.8 HRPO 1011 is a practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.

HRPO 1091 - Compensation and Benefits CEU: 0.8
Students will learn about implementing, administering and tracking employee compensation and benefits. Topics covered include payroll, entitlement tracking and attendance.

HRPO 1091 - Employee Relations CEU: 0.8
Students will identify techniques for reading strategies; generate rules for clear and concise telephone conversations; define business related terminology; and proofread, correct and compose business documents.

HRPO 1091 - Introduction to Human Resources CEU: 0.8 This course is a basic overview of human resources and outlines the major functions, competencies and responsibilities involved in the field of human resources. For more information , contact 713 718.6772.

HRPO 1091 - Organizational Development CEU: 0.8 Students will understanding the behavioral and legal approaches to the management of human resources in organizations.

HRPO 1091 - Talent Management CEU: 0.8 This course is designed to help managers understand talent management processes in a way that will lead to better decision and engaged more employees.

HRPO 2005 - SAP Human Capital Management (HCM) CEU: 4.8 This course provides an introduction to Human Resource Information Systems (HRIS).

HRPO 2030 - PHR/SPHR Exam Preparation CEU: 3.2 Students will gain an understanding of major concepts, theories, and their applications to prepare for the Professional Human Resources (PHR) Certification Exam or the Senior Professional Human Resource (SPHR) Certification Exam.

INMT 1005 - Introduction to Industrial Maintenance CEU: 2.4 Basic mechanical skills and repair techniques common to most fields of industrial maintenance. Topics include precision measuring instruments and general safety rules common in industry, including lock-out/tag-out.

INMT 1045 - Introduction to Computer Numerical Control CEU: 4.8 A study of numerical controlled machine operations in a CAM/CIM environment. Emphasis on standard and computer numerical controlled (CNC) procedures for planning, preparing, and operating a computer-assisted machine.

ITCC 1014 - Cisco Exploration 1-Network Fundamentals CEU: 8.0 This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum.

ITCC 1040 - CCNA 2: Cisco Exploration 2 - Routing Protocols and Concepts CEU: 8.0 This course describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks.

ITCC 1040 - Cisco Exploration 2 - Routing Protocols and Concepts CEU: 8.0 This course describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks.

ITCC 2012 - Cisco Exploration 3 - LAN Switching and Wireless CEU: 8.0 LAN operations and implementation in the LAN environment. Analyze, configure, verify, and troubleshoot VLANs, RSTP, VTP, and wireless networks. Layer 3 switching concepts are introduced.

ITCC 2013 - CCNA 4: CISCO Exploration 4- Accessing the WAN CEU: 8.0 WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements.

ITCC 2041 - CCNA Security CEU: 6.4 This course takes a look into overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

ITCC 2054 - CCNP -R&S Route CEU: 11.2 This course will teach students how to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers.

ITNW 1013 - CompTIA Cloud+ Certification CEU: 6.4 This class will provide students with the knowledge and skills to understand the fundamentals of cloud computing from a technical and business perspective. Cloud Technologies and business needs are moving faster than organizations can adapt. Understanding cloud computing is the key for the initial project planning for cloud solutions and safe and well managed implementation of any cloud project.

ITNW 1053 - Installing & Configuring Windows Server 2016 CEU: 6.4 Installing and Configuring Windows Server 2016 Exam 70-410 is part one of a series of three courses that validate the skill and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing enterprise environment. This training will validate the initial implementation and configuration of the Windows Server 2012 core services such as Active Directory and Networking services.

ITNW 1092 - Build an IOT Smart Raspberry PI Robot CEU: 0.8 This course covers basic principles and applications of robots including installation, interfacing, programming, maintenance and safety of robots and robotic cells.

ITSC 1006 - Microsoft Windows, Introduction CEU: 2.4 This course provides an introduction to operating systems file creation/deletion, data entry and manipulation, automatic file execution, configuration, and directory commands.

ITSC 1009 - MS Office Suite, Professionals CEU: 4.8 This course provides an introduction to business productivity software suites using word processing, spreadsheets, databases, and/or presentation software.

ITSC 1091 - Build a Sneaker Bot Using Raspberry PI CEU: 0.8 This course provides an introduction to flexible automation. Topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems.

ITSC 2040 - A+ Certification CEU: 7.2 This course will focus on microcomputers and required software components. Topics include site preparation, installation procedures, components, power supplies, modems, printers, switches, operating, help, and security systems, packaged programs, utilities, languages, and operating procedures. The class prepares the student for the A+ Certification exam.

ITSE 1002 - Python Programming Introduction CEU: 6.4 This course provides an introduction to python programming including design, development, testing, implementation, and documentation.

ITSE 1003 - C# Introduction CEU: 2.4 Students will learn basic programming concepts and techniques. Topics include familiarization with and utilization of computer systems; developing logic; preparing top-down design of problems; and creating programs.

ITSE 1011 - Java Script Programming CEU: 6.4 Students will gain skill development in web programming, including mark-up and scripting languages. During the course of this class, students will be able to use JavaScript to make dynamic web pages.

ITSE 1091 - SAP Logistics with Materials Management & Production Planning CEU: 4.8 This SAP training will teach the students implementation of large scale Enterprise Systems, Logistics Concentration, Materials Management and Production Planning Methodology covers initial program inception through data conversations, materials management, production planning, sales and distribution, and other SAP integrated areas. The configuration will be covered in detail.

ITSE 1091 - Swift APP Development Certificate Prep I CEU: 9.0 Topics address recently identified current events, skills, knowledge and or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course is designed to help you build a solid foundation in programming fundamentals using Swift as the language. You'll get practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch. You'll also learn user interface design principles, which are fundamental to programming and making great apps. Prior programming experience is not required for this course.

ITSY 1000 - Security + Certification CEU: 4.8 This course provides an introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed.

ITSY 1091 - SAP Security Training CEU: 4.8 System, Applications and Products (SAP) Security Training will teach the student how to use the advanced system and process data for system security according to best practice business processes. The system integration areas are also covered. Topics include the basics of advanced system design, utilizing fields, adding and modifying records, user groups, sorting and using data entry screens and printed reports. Complete training documentation materials are delivered to students.

LGLA 1091 - Introduction to Law CEU: 1.6 This course takes a look into legal terminology relating to substantive areas of law and the federal and state judicial systems is presented with emphasis on paralegal's role in the legal system.

LGLA 1091 - Legal Research I CEU: 1.6 Students will learn how to use the law library, electronic resources and a range of other tools to analyze relevant primary and secondary law. Prerequisite: Introduction to Law.

LGLA 1091 - Legal Research II CEU: 1.6 Legal Research II is a continuation of Legal Research I and will teach students to convey the concept of authority in legal writing; begin in-depth study of legal research and familiarization of the law library. Prerequisite: Legal Research I

LGLA 1091 - Legal Research III CEU: 1.6 Legal Research III is a continuation of the first two modules of Legal Research and will assist students to convey concepts basic to the common law system, such as the function of the appellate courts, state desists and dictum. This module will continue the utilization of the law library, electronic resources and range of other tools to analyze primary and secondary law. Prerequisite: Legal Research I and II.

LGLA 1091 - Legal Writing CEU: 1.6 Fundamentals of legal writing techniques including case and fact analysis, citation formats, and legal writing styles emphasizing the paralegal's role in legal writing.

LGLA 1091 - Texas Civil Litigation I CEU: 1.6 This course will cover the research, analysis and preparation of documents necessary in civil litigation including pleadings, discovery, motions, responses, and judgments.

LGLA 1091 - Texas Civil Litigation II CEU: 1.6 Continuation of research, analysis and preparation of documents necessary in civil litigation including pleadings, discovery, motions, responses, and judgments. Prerequisite: Texas Civil Litigation I.

LGLA 1091 - Texas Civil Litigation III CEU: 1.6 This course is a continuation of research analysis and preparation of documents necessary in civil litigation including pleadings, discovery, motions, responses, and judgments. Prerequisite: Texas Civil Litigation I/II.

MCHN 2031 - Operation of CNC Turning Centers CEU: 6.4 CNC operations with an emphasis on turning centers.

MCHN 1001 - Sheet Metal I CEU: 6.4 An introduction to the materials, tools, and techniques used in the sheet metal industry. Review of trade math problems involving measurement of lines, area, volume, weight, and geometric figures. Introduction of types and uses of hand, layout, and cutting tools along with bending and forming machines. Practice of material types and properties along with the principles of layout and metal forming.

MCHN 1002 - Print Reading for Machining Trades CEU: 4.8 A study of blueprints for machining trades with emphasis on machine drawings.

MCHN 1020 - Precision Tools and Measurement CEU: 4.8 An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools.

MCHN 1049 - Sheet Metal II CEU: 6.4 A study of various types of pipe and fittings. Emphasis on principles and type of fittings for radial line development are discussed and factors that influence bend allowances and calculations necessary for determining proper bend allowances. Introduction to principles of soldering roof flashings, gutters, down spouts, and sheet metal duct fabrications.

MRKG 1002 - Principles of Retailing CEU: 4.8
MRKG 1002 is an introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing.

MRKG 1011 - Principles of Marketing CEU: 4.8
MRKG 1011 is an introduction to the marketing functions: identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research.

MRKG 2372 - Consumer Behavior CEU: 4.8 MRKG 2372 is a study of buyer motives, reference groups, social class, culture, and family and social interrelationships are examined.

NDTE 2011 - Preparation for Certified Welding Inspector Exam CEU: 4.8 This course covers welding fundamentals, welding inspection and code interpretation in preparation for the certified welding inspector examination.

NURA 1001 - Certified Nurse Aide CEU: 10.8
Students will gain an understanding of the knowledge, skills, and abilities essential to provide basic care to residents of long-term care facilities. Topics include resident's rights, communication, safety, observation, reporting and assisting residents in maintaining basic comfort and safety. Emphasis on effective interaction with members of the health care team, restorative services, mental health, and social services needs.

OSHT 1015 - OSHA 10 for Construction CEU: 1.0
Recognize and evaluate hazards in the workplace and implement control measures including engineering, administrative, and personal protective equipment.

OSHT 1015 - OSHA 10 for General Industry CEU: 1.0
Recognize and evaluate hazards in the workplace and implement control measures including engineering, administrative, and personal protective equipment.

PFPB 1008 - Basic Pipefitting CEU: 9.6
This course will teach students mathematical operations necessary to calculate laying lengths of pipe fittings for fabrication. Students will also learn identification and use of hand tools and power tools as well as identification of pipe, pipe fittings, flanges, and fasteners used in the trade.

PFPB 1008 - Basic Pipefitting Skills CEU: 9.6
This course will teach students mathematical operations necessary to calculate laying lengths of pipe fittings for fabrication. Students will also learn identification and use of hand tools and power tools as well as identification of pipe, pipe fittings, flanges, and fasteners used in the trade.

PFPB 1013 - Introduction to the Plumbing Trade CEU: 7.2
Material selection, mathematical calculations applicable to the plumbing trade, hand and power tools, and safety practices.

PFPB 1013 - Plumbing Trade, Introduction CEU: 8.0
Start a career in the plumbing industry! Students will become acquainted with the basic knowledge and skills in plumbing including terminology, tools, plumbing math, and gain an understanding of materials related to plumbing and their use. This course is necessary for a beginner in the Plumbing trade.

PFPB 1019 - Commercial Plumbing I CEU: 7.2
Skills, procedures, and techniques used in the installation of hot and cold potable water supply systems and drain, waste, and vent (DWV) systems in commercial buildings.

PFPB 1021 - Plumbing Maintenance and Repair CEU: 7.2
Instruction in the practices and procedures employed by a plumber including public relations.

PFPB 1025 - Mechanics of Plumbing CEU: 7.2 An introduction to the principles of physical science and the mechanics used in the plumbing industry that includes basic principles of physics, matter, liquids, and hydraulics.

PFPB 1047 - Backflow Prevention CEU: 7.2 Principles, practices, and regulations of backflow. Includes backpressure, public health, laws and responsibilities, mechanics and use of backflow devices, and equipment testing used in backflow devices.

PFPB 1050 - Plumbing & Pipefitting Equipment and Safety CEU: 9.6 Students will learn safe use of hand tools, power tools, rigging, and power equipment used in the plumbing trade for installation of different plumbing systems.

PFPB 1053 - Commercial Plumbing II CEU: 7.2 Methods used in the installation of controls, water heating systems, circulating water systems, and other piping systems commonly found in commercial buildings.

PFPB 2007 - Pipe Fabrication and Installation I CEU: 9.6 This course will teach students pipe fabrication and various materials and installation of pipe supports.

PFPB 2008 - Piping Standards & Materials CEU: 8.0 This course covers identification, description and application of cast-iron piping standards, specifications, metallic/non-metallic piping materials, and valves. Students will learn how to choose fixtures, usage, and operations of DWV system design, types of drains, fittings, vents, pipe, installation, and water distribution process.

PFPB 2010 - Intermediate Blueprint Reading for Pipefitters CEU: 6.4 Reading and interpreting advanced working drawings to calculate piping runs. Includes instrumentation symbols and abbreviations and the use of advanced sketching techniques to create isometric and orthographic drawings of piping and piping components.

PFPB 2032 - Advance Pipe Fitting, Standards, and Installation CEU: 9.6 Skill development in motorized equipment, above-ground pipe installation valves, field routing and vessel trim, spring can supports, testing piping systems and equipment, basic plumbing, planning work activities, and Non-Destructive Testing (NDT).

PFPB 2036 - Commercial Construction and Fixture Setting CEU: 7.2 Practices and procedures employed by a plumber in the common construction in a commercial building including drain, waste, and vent systems, water systems, and fixture installations.

PFPB 2039 - Commercial and Industrial System Start-up CEU: 7.2 Testing procedures used and terminology associated with system start-ups. Includes performance of system start-ups using safety procedures in commercial and industrial piping systems.

PFPB 2041 - Pipe Fabrication and Installation II CEU: 9.6 Advanced pipe fabrication of various materials with emphasis on vertical, horizontal, and rolling off-sets using 45-degree fittings and odd-angle fittings.

PLAB 1023 - Phlebotomy CEU: 9.6 This course provides skill development in the performance of a variety of blood collection methods on adults, children, and infants using proper techniques and standard precautions. Emphasis is on patient identification, infection control and specimen handling. Topics include professionalism, ethics, medical terminology and basic anatomy and physiology relating to blood analysis. Designed for students seeking national certification in phlebotomy. This course is included in the Phlebotomy Technician certificate.

PLAB 1091 - Phlebotomy for the Healthcare Professional CEU: 4.0 The course is designed for phlebotomy students and phlebotomists currently working in the field who wish to take a national certification exam. Upon successful completion of this course, participants will demonstrate knowledge and understanding of the proper techniques used for quality assurance, infection prevention, patient identification, professionalism, ethics, and medical terminology.

PLAB 2000 - Phlebotomy Update CEU: 0.8 Students will learn practical or theoretical training to meet continuing education and/or review requirements associated with professional licensure or certification.

POFI 1004 - Computer Fundamentals CEU: 3.0 Students will learn computer application specific software. Emphasizes the concurrent development of office skills and computer knowledge.

POFM 1017 - Medical Administrative Support CEU: 4.8 Students will obtain instruction in medical office procedures including appointment scheduling, medical records creation and maintenance, telephone communications, coding, billing, collecting, and third party reimbursement.

POFM 1027 - Medical Billing CEU: 4.8 Students will learn survey of medical insurance including the life cycle of various claim forms, terminology, patient relations, and legal and ethical issues.

POFM 2010 - Intermediate Medical Coding CEU: 4.8 This course will introduce assignment and application of various coding guidelines with emphasis on physician billing and regulatory requirements. Includes code selection for Evaluation and Management (E/M) and Medical/Surgical cases.

POFT 1010 - Keyboarding, Basic CEU: 2.4 Students will gain skill development in keyboarding.

PTRT 1001 - Introduction to Petroleum Industry CEU: 6.4 This course provides an introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing, and chemical processing industries.

QCTC 2031 - Welding Codes and Standards CEU: 4.8 Students will understand philosophy and theory of appropriate standards, organizations, and systems integration relating to the standards criteria in society.

WLDG 1007 - Introduction to Welding - Bilingual CEU: 16.0 This course covers basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW). Este curso cubre técnicas básicas de soldadura usando algunos de los siguientes procesos: soldadura y corte con oxiacetileno (OFW), soldadura por arco eléctrico con electrodo revestido (SMAW), soldadura con arco metálico con gas (GMAW), soldadura por arco con núcleo fundente (FCAW) y soldadura por arco eléctrico con electrodo de tungsteno con gas (GTAW).

WLDG 1007 - Introduction to Welding CEU: 16.0 This course covers basic welding techniques using some of the following processes: Oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), flux cored arc welding (FCAW), and gas tungsten arc welding (GTAW).

WLDG 1013 - Introduction to Blueprint Reading for Welders CEU: 6.4 This course is a study of industrial blueprints. Emphasis is placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production.

WLDG 1015 - Maintenance Welding CEU: 4.0 An Introduction to oxy-fuel and arc welding and cutting practice and procedures.

WLDG 1034 - Introduction to Gas Tungsten Arc Welding CEU: 9.6 Principles of gas tungsten arc welding (GTAW), including setup, GTAW equipment. Instruction in various positions and joint designs.

WLDG 1035 - Introduction to Pipe Welding CEU: 9.6 This course introduces welding of pipe using the shielded metal arc welding process (SMAW), including electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 1G and 2G using various electrodes.

WLDG 1091 - Welding Special Topics CEU: 1.0 Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

FULL-TIME FACULTY

Abanda, Peter A	Geology	Doctor of Philosophy
Abba, Katherine A	Child Development	Doctor of Philosophy Master of Arts
Abdallah, Ghassan M	Government	Doctor of Philosophy Master of Arts Bachelor of Arts
Abercia, Lisa A.	Vast/Occupational Life Skills	Master of Arts Bachelor of Science
Abernathy, Carlton G.	Communications	Master of Arts Bachelor of Arts
Ables, Gisela R	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Abraham, Reni A	Digital Gaming & Simulation	Doctorate of Education Master of Science
Achee Jr., Henri	Librarian, Public Service	Master of Arts Master of Science
Ackelmire, Corey E	Studio Art & Art History	Master of Fine Arts Bachelor of Fine Arts
Adams, Deborah	Integr'td Reading/Writing(INRW)	Master of Arts Bachelor of Arts
Adams, Walter Matthew	Industrial Electricity	Bachelor of Science
Adedoyin-Tuyo, Harriet S.	Vocational Nursing	Master of Science Nursing Bachelor of Science Nursing
Adegoke, Anuoluwa Esther	Chemistry	Doctor of Philosophy
Adjei, Gideon	Biology	Doctor of Philosophy
Afaneh, Mohammad Khalil	Mathematics	Master of Arts
Aguilar, Aurelio J	Construction	Associate of Applied Science Certificate
Ahmed-Zaid, Abdelnour	Mathematics	Doctor of Philosophy Master of Science
Ahosseini, Azita	Process Technology	Doctor of Philosophy Master of Science Bachelor of Science
Ainsworth, Joseph Alan	English	Master of Arts Doctor of Philosophy
Akbay, Kubra Nur	Developmental Math	Master of Education Bachelor of Science
Akpan, Anietie D	Mathematics	Master of Education Bachelor of Science

Akpanumoh, Edem D	Physics	Doctorate of Education Master of Science Bachelor of Science
Alamnehe, Abass B	Computer Science	Bachelor of Science
Al-Bataineh, Rawya Ahmad	Mathematics	Master of Science Bachelor of Science Bachelor of Dental Surgery
Alderman, Pamela S.	Nuclear Medicine	Master of Science Bachelor of Science Associate of Applied Science
Alexander, Marion Wynne	Math	Doctor of Philosophy Bachelor of Arts
Alexander, Nicol Jamal	Digital Communication	Associate of Applied Science
Ali, Sazar Abdulilah	Process Technology	Bachelor of Science
Allen, Dwight E.	Fire Protection Tech	Master of Business Admin Bachelor of Music Education
Almansor, Khansaa	Electronic Engr Tech	Master of Science
Almestica, Alexandra	Librarian, Public Service	Master of Science
Alvanipour, Sarah	Chemistry	Doctor of Pharmacy
Alvarez Helling, Cynthia	EMS	Certificate
Amaku, Veronica M	Biology	Doctor of Philosophy
Ameri Sianaki, Javad	Computer Science	Master of Science Bachelor of Science
Ames, Stephen C	Audio Recording	Practitioner
Anderson, Angela Annette	Speech	Doctor of Education Master of Arts Bachelor of Arts
Anderson, Kristin K	Psychology	Master of Science Doctor of Philosophy
Anderson, Treva Shawn	Librarian, Public Service	Master of Science Bachelor of Business Admin Certificate
Anoka, Cyril O.	Physics	Doctor of Philosophy
Ansell, Bennie	Art	Master of Fine Arts
Apodaca, Jason P.	Student Success(Educ)-Academic	Doctorate of Education Master of Arts
Applebaum Wells, Allyson Brown	Music	Doctor of Philosophy Master of Arts Bachelor of Arts
Argo, Daniel Lee	Sociology	Master of Arts Bachelor of Science
Ariyaratna, Rajamanthri	Mathematics	Master of Science

Armstrong, Russell S	Digital Communication	Master of Fine Arts Bachelor of Fine Arts
Arnold, Randal H	Bldg Maint Trade	Certificate
Arzola, Laura V	English	Master of Arts Bachelor of Arts
Asgary, Homied	Computer Science	Master of Science
Askari, Hossein	English Language Skills(CE)	Doctor of Philosophy Master of Arts
Aslam, Mahrukh	Biology	Master of Science Bachelor of Science
Attar, Eddy A.	Developmental Math	Master of Arts Bachelor of Science
Averbeck, Clemens	Hospitality Management	Master of Arts
Ayers, Laura Elizabeth	Anthropology	Master of Arts Bachelor of Arts
Ayers, Michael D.	Sociology	Master of Arts Bachelor of Arts
Azzopardi, Alexa Germaine	Librarian, Public Service	Master of Library Science Bachelor of Science
Bachan, Jennifer Danielle	Government	Master of Public Administration Bachelor of Arts
Baggett, Antrece L	History	Master of Arts
Bai, Yiyang	Chemistry	Doctor of Philosophy
Bailey, Kevin Elmore	Government	Master of Arts
Ballard, Sheryl Lee	History	Master of Arts
Ban, Hyunju	Mathematics	Doctor of Philosophy Master of Science
Bandaru, Chiranjeevini Kumari	CISCO (CCNA)	Master of Technology Bachelor of Technology
Banks, Latona Danette	Vocational Nursing	Associate of Applied Science
Barchas, Joseph Adam	Physics	Doctor of Philosophy Master of Science
Barry, Jackie Marie	Interior Design	Master of Arts Bachelor of Fine Arts
Barry, John Kevin	Physics	Master of Science Bachelor of Science
Basharat, Mahmoud A	Mathematics	Master of Science
Bashlor, Richard H.	Comm. Truck Driving	Certificate
Baskin, Darin Lamar	Student Success(Educ)-Academic	Master of Arts Bachelor of Science
Basye, Timothy Layne	Auto Mechanic	Associate of Applied Science
Bata, Julie Ellen	Dance	Master of Fine Arts

Batamo, Shuhsien W	Chemistry	Doctor of Philosophy
Batiste, Fredrick J	Communication	Master of Arts Bachelor of Arts
Battieste, James Lejean	Logistics & Global Supply Chain Management	Master of Business Admin
Bauhs, Bryan R.	Art	Master of Fine Arts
Bazargan, Mohammad B	Mathematics	Doctor of Philosophy Master of Science Bachelor of Science
Beard, Levi Lamont	Integrated Reading/Writing	Master of Education Bachelor of Arts
Beckett, William Thomas	Librarian, Public Service	Master of Arts Certificate
Bel, Gladys	Art	Master of Fine Arts Bachelor of Science
Bell, Glenna G.	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Belz, Sabrena P	English	Master of Arts
Berends, Aukje Hubertiena	Biology	Doctor of Philosophy
Berhe, Okubamichael G	Mathematics	Master of Science Bachelor of Science
Berrached, Ali	Computer Science	Doctor of Philosophy Master of Science Bachelor of Science
Betton, Farrish Earl	Chemical & Petroleum Engineering	Master of Business Admin Bachelor of Science
Beveridge, Shasta Fay	Interior Design	Bachelor of Science Associate of Applied Science
Billingsley, Dauphine L	Health Science	Doctor of Philosophy Master of Arts Master of Science
Bilton-Beard, Pamela Denise	Student Success	Doctorate of Education Master of Arts Bachelor of Arts
Blackmon, Terronica L	Biology	Doctor of Philosophy
Bland, Lawrence Stephen	Auto Mechanic	Associate of Applied Science
Bobbio, Fernando	Computer Networking & Telecomm	Associate of Applied Science
Boland, Nicholas S	Chef/Culinary Arts	Associate of Science
Bolet, Linda M	English Foreign Speakers	Master of Arts Bachelor of Arts
Bond, Donald R.	Accounting	Master of Business Admin Bachelor of Business Admin

Bonner, Andrea Latrice	Fashion Merchandising	Master of Professional Studies Bachelor of Business Admin
Bonnor, Cecilia	English	Master of Arts Master of Philosophy Bachelor of Arts
Boone, Rosetta Tomieka	Child Development	Master of Education Bachelor of Arts Associate of Applied Science Certificate
Bordeaux, Vedron	Fire Protection Tech	Master of Science Bachelor of Business Admin Associate of Applied Science
Bose, Rumela	Librarian, Public Service	Master of Arts Master of Library Science Bachelor of Arts
Botson Jr., Michael R.	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Boucher, Michael Roland Boutte-Heiniluoma, Nichole Crystell	Geographic Information Science Sociology	Master of Arts Doctor of Philosophy Master of Arts Bachelor of Arts
Boyd, Denise R	Psychology	Doctorate of Education Master of Education Bachelor of Arts
Boyd, Jerelean	Business Technology	Master of Education Bachelor of Science
Boyd, Richard B Boyd, Sandra Yvonne	Filmmaking Psychology	Associate of Applied Science Doctor of Philosophy Master of Arts Bachelor of Arts
Boykin, Judith Bracamonte, Margarita Philomena Brade, Branson Bradford, Johnell Robinson	Chef/Culinary Arts Biology Mathematics Student Success(Educ)-Academic	Associate of Applied Science Doctor of Philosophy Master of Science Doctor of Education Master of Education Bachelor of Science
Bradshaw, Loris	Business Tech	Master of Arts Bachelor of Science
Bragdon, Ann Louise	Anthropology	Doctor of Philosophy Master of Arts Bachelor of Arts

Brazeau, Paul	English Foreign Speakers	Masters
Braziel, Lemetra Orlesica	Certified Nurse Aide	Associate of Applied Science
Brent, Cheryl Ann	Vocational Nursing	Bachelor of Science
Bridges, Suzon K	Accounting	Juris Doctor Master of Business Admin Bachelor of Arts
Briggs, Andrew Nathan	Music	Doctorate Master of Music Bachelor of Arts
Britton, Shenesse Yvette	Cosmetology	Bachelor of Science Associate of Arts
Brogdon, Bruce S	English	Master of Arts Bachelor of Arts
Broussard, Camisha Terese	English	Master of Fine Arts Bachelor of Arts
Brown, G Raymond	Artificial Intelligence	Doctor of Philosophy
Brown, Jessica Autumn	Sociology	Master of Science
Brown, Marjorie Denise	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Brown, Todd M	Comm. Truck Driving	Associate of Applied Science Associate of Science
Brunet, Ellen A	History	Doctor of Philosophy Master of Arts
Bruton, Katherine Elaine	Psychology	Master of Arts Bachelor of Science
Bruton, Melissa Ruth	Surgical Technology	Associate of Arts
Bukhari, Khalid Mahmood	Physics	Doctor of Philosophy
Bumgardner, Roger D	Radiologic Technology	Master of Science
Bunton, Sanya Latrece	Librarian, Public Service	Master of Library Science Bachelor of Arts
Burgos, Evelyn Vargas	Business Administration	Master of Business Admin Bachelor of Science
Burris, Darryl E Edward	Auto Mechanic	Certificate
Butler, Rochelle Denson	Accounting	Master of Business Admin Bachelor of Business Admin
Cade, Kimberly Ann	Marketing	Master of Business Admin Bachelor of Business Admin
Caldwell, Christopher	Business Management	Master of Business Admin Bachelor of Arts

Caldwell, Willie T	Business Technology	Master of Arts Bachelor of Arts
Callahan, Rita Renae	Assoc Degree Nursing	Doctor of Philosophy Master of Arts
Campbell, James Surachet	Respiratory Therapist	Master of Science Bachelor of Science Associate of Applied Science
Carey, Lorraine H.	Geology	Master of Science
Carmean, Chris	Criminal Justice	Juris Doctor
Carney, Christopher James	English	Doctor of Education
Carothers, William Scott	Art	Master of Fine Arts
Carpenter, Crystal Faith	Health Information Specialist	Master of Education Bachelor of Arts Associate of Arts
Carra, Claudio	Chemistry	Doctor of Philosophy
Carrillo, Bernardo	Welding	Bachelor of Engineering Associate of Applied Science
Cary, Paulina L	Criminal Justice	Master of Science
Castaneda, Adam	English	Master of Arts Bachelor of Arts
Castillo, Lucy C	Intensive English	Bachelor of Science
Cazares, Leonard L.	Librarian, Public Service	Master of Library Science
Chaidez, Rosa Maria	Cosmetology	Associate of Applied Science
Chaisson, Lisa	Physical Education	Master of Fine Arts Bachelor of Arts
Chakravarty, Bindu	Chemistry	Master of Science Bachelor of Science
Chalk, Fred Marshall	Industrial Electricity	Associate of Applied Science
Chambless, Jerry R	Auto Mechanic	Bachelor of Science
Chami, Mayyada	Psychology	Master of Arts Bachelor of Science
Champagne, Brent K	Audio Recording	Associate of Applied Science
Champroux, Nicolas	Fashion Design	Master of Arts
Chandler, James	Auto Mechanic	Associate of Applied Science
Chandler, Trevor L.	Computer Networking & Telecomm	Bachelor of Science
Chapman, Alexander G.	Fashion Design	Bachelor of Fine Arts Associate of Applied Science
Cherif, Abdallah	Chemistry	Doctor of Philosophy
Chirinos, Katherine D	Intensive English	Master of Arts Bachelor of Arts
Chopra, Vimlarani	Biology	Doctor of Philosophy

		Master of Science Bachelor of Science
Chreim, Zeyad Cin, Holly Beth	Developmental Math English Foreign Speakers	Master of Science Master of Arts Bachelor of Arts
Cirillo, Jane Marie	Psychology	Doctor of Education Master of Arts Bachelor of Arts
Clark, Carl Clarkson, Mary C	Auto Mechanic Spanish	Associate of Applied Science Doctor of Philosophy Juris Doctor Master of Arts
Clay, Cathy Joyce Clemens, Paul Leslie	English Chemistry	Master of Arts Doctor of Philosophy Master of Science Bachelor of Science
Clement, Kevin A Cleveland, Michael G Cohn, Michael Jerome	ESL / Intensive English Automotive Technology Audio Recording Technology	Bachelor of Arts Associate of Applied Science Master of Arts Bachelor of Arts
Colby, Marquez Rafeal Cole, Amanda Christine	Interior Design English	Bachelor of Science Master of Arts Bachelor of Arts
Comello Jr., Harold Raymond Comfort, Leslie Elizabeth	Government Child Development	Master of Arts Doctor of Philosophy Master of Education Bachelor of Science
Conkling, Parish Grace	Philosophy	Master of Philosophy Master of Liberal Arts Bachelor of Arts
Conn, Richard Dean	Librarian, Public Service	Master of Library Science Master of Business Admin
Connery, James Edward	Manufacturing Process	Associate of Applied Science Certificate
Conran, Mark H Cote, Julia	Radiologic Technology Intensive English	Bachelor of Science Doctor of Education Master of Education Bachelor of Arts
Cox, Nicholas P	History	Master of Arts Bachelor of Arts
Crane, Jamey Lea	Government	Master of Arts

Crasto, Darren R	World Languages	Bachelor of Arts Master of Arts Bachelor of Arts
Crawford, Juan Zane	Real Estate	Master of Business Admin Bachelor Business Management
Crispin, Jennifer J	Librarian, Public Service	Doctor of Philosophy Master of Arts Bachelor of Arts
Cristiano, Richard John	Biology	Doctor of Philosophy Bachelor of Science
Cross, Carolyn M	Speech	Master of Arts
Crotser, Jeremiah Val	English	Doctor of Philosophy Master of Arts
Daily, Elizabeth B.	English for Foreign Speakers	Master of Arts
Davenport, Raven	Business Management	Juris Doctor Bachelor of Science
Davis, Gizelle Lynn	Biology	Master of Arts Bachelor of Science
Davis, Patricia A	Integrated Reading/Writing	Doctorate of Education Master of Arts Bachelor of Arts
Davis, Russell R.	Integrated Reading/Writing	Master of Divinity
Davis, Syble S	English	Master of Arts Bachelor of Arts
Davis-Littleton, Vikki	Nuclear Medicine Technology	Master of Business Admin Bachelor of Science Associate of Applied Science
Dayoub, Ali	Developmental Math	Master of Arts Master of Science
Daza, Christopher Allen	Radiologic Technology	Bachelor of Science
De Bary, Narges Sharafi	Computer Science	Doctor of Philosophy Master of Info Tech Mgmt
De Garcia, Silvia Garza	Business Administration	Master of Business Admin
De Jongh, Alissa	Cosmetology	Associate of Applied Science Certificate
De Leon, Blanca	Cosmetology	Associate of Applied Science
Decker, Jennifer G	English	Master of Arts Bachelor of Arts
DeHerrera, Noemi	Developmental Math	Master of Science Bachelor of Science
Dennis-Jones, Patricia A	Integr'td Reading/Writing(INRW)	Master of Education Bachelor of Science

Derakhshandeh, Jamshid	Computer Programming	Master of Science
Dewlen, Ronald F	Student Success	Doctor of Philosophy Master of Science Bachelor of Science
Dibble, Dwayne R	Comm. Truck Driving	Certificate
Dikeocha, Ndu	Biology	Doctor of Philosophy Master of Science
Dillon, Kathleen	Librarian, Public Service	Master of Library Science Bachelor of Fine Arts
Dock, Gregory Ralph	Auto Mechanic	Associate of Applied Science
Dodd, Patricia Maria	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Dodson, Caprice Lynn	Kinesiology (Physical Education)	Master of Education Bachelor of Science
Dopierala, Amy	Speech	Master of Education Master of Science
Douglas-Jones, Marilyn R	English	Master of Arts
Downey, Carlton M.	English	Doctor of Philosophy Master of Arts
Drake, Chris L	History	Master of Arts Bachelor of Arts
Driver, William D.	Anthropology	Doctor of Philosophy Master of Arts
Drummond, Paul Victor Bassanio	Biology	Doctor of Philosophy
Dunn, Christopher Kenneth	English	Doctor of Philosophy
Dunn, Roderick Lydell	Pharmacy Technician	Master of Science Bachelor of Science
Dunn, Ruth Erline	Sociology	Master of Arts
Duru, Enrico A	Biology	Doctor of Philosophy Master of Science Bachelor of Science
Dusek, Jeremy M	Graphic Arts Tech	Associate of Applied Science Certificate
Dybala, Marie E	English	Master of Arts Bachelor of Arts
Dylla, Daniel P	Librarian, Public Service	Master of Science Bachelor of Arts
Edwards, Renee Lynn	Economics	Master of Arts Bachelor of Arts
Ekwere, Ebong J	Respiratory Care Tech	Master of Business Admin

		Associate of Applied Science
Elkhatib, Mohamad Moussa	Developmental Math	Master of Education
EL-Loubani, Khaled Y	Developmental Math	Master of Science Bachelor of Science
Eomurian, Margaret A	Spanish	Doctor of Philosophy
Esposito, Ronald K	Paralegal Technology	Juris Doctor Bachelor of Arts
Evans, Bryant T.	Geography	Master of Arts
Ewane, Emmanuel	Chemistry	Doctor of Philosophy
Faegh, Ali	Economics	Doctorate of Education Master of Arts
Fajuyigbe, Festus	Chemistry	Master of Science
Falahat, Ali R.	Developmental Math	Master of Business Admin Bachelor of Science
Fan, Biwun	Developmental Math	Master of Science
Fax, Joanna	English	Doctor of Philosophy Master of Arts
Feighny, Edward Jackson	ESL	Master of Arts
Ferguson, Mary Jane	Mathematics	Masters
Fields, Katherine Rhodes	Studio Art & Art History	Master of Arts Master of Fine Arts
Fife, Susan R.	Mathematics	Doctor of Education Master of Arts Bachelor of Arts
Firat, Ibrahim Can	Business Administration	Master of Business Admin Bachelor of Arts
Flanagan, Michael	Drama	Master of Fine Arts
Fletcher, Lane F	English	Master of Arts Bachelor of Arts
Flores, Daniel Jacob	Philosophy	Master of Arts Bachelor of Arts
Flowers, Selena R.	English	Master of Fine Arts
Foldi, Beatrix	Biology	Doctor of Medicine Master of Science
Fonge, Michael F	Sociology	Doctorate of Education Master of Arts Master of Education Bachelor of Science
Ford, Shantae Renee	Workplace Literacy	Master of Business Admin Bachelor of Arts
Foreman, Renettia	Speech	Master of Arts

Fortune, Carla K	Chemistry	Bachelor of Science Master of Science Bachelor of Science
Foster, Eva Leigh	English	Doctor of Philosophy Master of Fine Arts Bachelor of Arts
Foster, Marion S	Mathematics	Master of Arts Master of Education Bachelor of Science
Francis, Amani	English	Bachelor of Arts
Frederick, Robert Lee	Computer Science	Master of Science Bachelor of Science
Freeman, Ernest Erskin	AC & Refrigeration	Certificate
Freeman, Margaret L	Health Science	Master of Education Bachelor of Science
Freytag, Jennifer Jeanene	English	Doctor of Philosophy Juris Doctor Bachelor of Arts
Fry, Carol A	History	Master of Science Bachelor of Science
Gabi, Charles T	Developmental Math	Master of Education Bachelor of Science
Galaktionov, Konstantin Imarovich	Biology	Doctor of Philosophy Bachelor of Science
Gallego, Ilija Immanuel	Psychology	Doctor of Philosophy
Galloway, Howard Clinton	Criminal Justice / Law Enforcement	Master of Science Bachelor of Science
Garcia, Cristina B	Graphic Arts Tech	Associate of Applied Science
Garcia, Gerardo Antonio	Welding	Certificate
Garcia, Pablo R	Biology	Doctor of Medicine Doctor of Philosophy Bachelor of Science
Gardiner, Simone Alicia	Student Success(Educ)-Academic	Doctor of Philosophy Master of Arts Bachelor of Science
Gardner, Catheryn Y	Law Enforcement Train	Bachelor of Science
Garg, Nupur	Chemistry	Doctor of Philosophy
Garza, Natalie M.	History	Doctor of Philosophy Master of Arts
Gaudin, Sharon Ruth	Adult Education	Bachelor of Science
Gbenda, Tamba Richard	Chemistry	Master of Applied Science

		Master of Science Bachelor of Science
Gedeon, Yokabet	Chemistry	Doctor of Philosophy Master of Science
Gehman, Scott H	Music Business	Doctor of Philosophy Master of Arts Bachelor of Arts
Gehman, Valorie L.	Horticulture	Master of Science Bachelor of Science Associate of Science
Genanaw, Mesfin	Accounting	Doctorate of Education Master of Business Admin
George, Ola Sara	Integr'td Reading/Writing(INRW)	Doctorate of Education Master of Education
Gersh, David	Psychology	Doctor of Philosophy Bachelor of Arts
Giles, Jacqueline	Mathematics	Master of Arts Master of Science Bachelor of Arts
Giles, John C	Mathematics	Master of Science Bachelor of Science
Giles, Michele	Dental Hygiene	Master of Arts Bachelor of Science
Glazer, Elliott S	Intensive English	Master of Arts
Goeters, Charlotte H	Real Estate	Master of Arts Bachelor of Science
Goeters, Joseph E	Real Estate	Master of Business Admin
Gomez, Gerardo	Auto Body Repair	Certificate
Gomez, Pete C	Mathematics	Master of Arts Bachelor of Arts
Gonzales, Claire E	Librarian, Public Service	Master of Library Science
Gonzalez, Larry J	Government	Doctor of Philosophy
Gonzalez, Ovidio M.	Digital Communication	Master of Fine Arts
Goode, Foster A.	Law Enforcement Train	Bachelor of Arts Associate of Applied Science
Gordon, Donna L	English	Master of Arts Bachelor of Arts
Gosselin, Richard J	Economics	Master of Arts Bachelor of Arts
Graham, Charles	Leather Trades	Certificate
Graham, Helen Elizabeth	Philosophy	Doctor of Education

Granado, Michael Fidelis	Mathematics	Master of Arts
Grau, Marina R	Accounting	Doctor of Philosophy Doctorate of Education Master of Business Admin Bachelor of Business Admin
Greco, Janice T	Psychology	Doctor of Philosophy
Green, Tiffany	Occup Therapy	Bachelor of Arts Bachelor of Science Associate of Applied Science
Greenbaum, Joseph William	Process Technology	Master of Business Admin Bachelor of Science
Greene, Gloria J	Cosmetology	Associate of Applied Science
Griffin, Linda C	English	Doctor of Education
Grigsby, DaeJan Elizabeth Honey	Biology	Doctor of Chiropractic Juris Doctor
Grisales, Joseph R	Manufacturing Engineer Tech	Bachelor of Science
Grissom, Charles B	EMS	Associate of Applied Science
Guerrero, Hilda Del	Dental Hygiene	Bachelor of Science
Gumeel, Dalia Abdelhafiz	Computer Science	Master of Information Systems Bachelor of Science
Guo, Aqiang	Physics	Doctor of Philosophy
Ha, Francis Q	Drafting	Associate of Arts Associate of Applied Science
Haci, Sophie	Economics	Master of Science
Hackley, Karen W.	Integrated Reading/Writing	Master of Arts
Hackner, Charles W	Economics	Master of Arts
Hadley, Lakisha Desha	Simulation Specialist	Master of Science Nursing
Haight, Christopher	History	Master of Arts Doctor of Philosophy
Hajjari, Tayebbeh	Mathematics	Doctor of Philosophy Master of Science Bachelor of Science
Hakemack, Richard M	Automotive Technology	Master of Science Bachelor of Science Associate of Applied Science
Hamby, Kevin L.	Interior Design	Bachelor of Fine Arts
Haque, Mohammad Mojibul	Chemistry	Doctor of Philosophy Master of Science
Hardy Jr., Hildreth Reuben	Criminal Justice	Master of Science Bachelor of Arts
Harris, Tamara MikkiDaniel	Integrated Reading/Writing	Doctor of Philosophy

		Master of Arts Bachelor of Science
Harris, Vinette Meikle	Government	Doctor of Philosophy
Harrison, Diana Lee	Humanities	Doctor of Philosophy Master of Arts Bachelor of Fine Arts
Hart, Karen	Psychology	Doctor of Philosophy Master of Education Bachelor of Arts
Hartray, Mark F	Government	Master of Arts Bachelor of Arts
Hasell, Duncan Ingraham	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Hatton, Jack	Developmental Math	Master of Science Bachelor of Arts
Hayes, Autumn	English	Master of Fine Arts Bachelor of Science
Hayes, Nancy Elizabeth	Intensive English	Master of Arts Bachelor of Arts
Hays, Everett D'Angelo	Comm. Truck Driving	Master of Business Admin Master of Public Administration
He, Min	Histologic Technician	Doctor of Medicine Master of Science
Hebel, Nazanin	Biology	Doctorate Dental Science
Heironimus, James Lee	Police In-Service	Master of Science Bachelor of Science
Hendry, Sharon M	Digital Communication	Master of Arts Bachelor of Fine Arts
Henry, Margaret Mary	English Foreign Speakers	Master of Arts Bachelor of Arts
Henry, Stephen Philip	Biology	Doctor of Philosophy Master of Science Bachelor of Arts
Herman, Bethany Nicole	Librarian, Public Service	Master of Science
Hermann, Andre J	Digital Communication	Master of Fine Arts Bachelor of Arts
Hernandez, Cleto	Fire Protection Tech	Certificate
Hernandez, Jaime L.	Mathematics	Doctor of Philosophy
Hernandez, Jessie Arrieta	Surgical Technology	Certificate
Hernandez, Kenneth J	Business	Master of Business Admin Bachelor of Arts

Hernandez, Victor J	Developmental Math	Bachelor of Science Master of Arts Bachelor of Science
Hernsberger, Brandon Keith	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Hetrick, Crystal L.	Spanish	Master of Arts
Higdon, Stacey Aleita	English	Master of Fine Arts
Hillman, Douglas S.	Computer Science	Bachelor of Science
Hill-Swaim, Maryellen J	Art	Master of Fine Arts Bachelor of Fine Arts
Hines, Montez L	Integr'td Reading/Writing(INRW)	Master of Education Bachelor of Science
Hines, Susan Roy	Music	Master of Arts
Hirani, Karsan R P	Digital Communication	Master of Science
Hixon, Beverly Ann	Student Success(Educ)-Academic	Master of Science
Ho, Elizabeth Minh	Diagnostic Medical Sonography	Doctor of Health Science Master of Science Bachelor of Health Science Associate of Applied Science
Hoag, Clara Grace	Art	Master of Fine Arts Bachelor of Fine Arts
Hoang, Henry	Drafting	Doctor of Philosophy Master of Science Bachelor of Science
Hodge, Brandon	Librarian, Public Service	Master of Science Bachelor of Arts
Holder, Angela Leah	History	Master of Arts Bachelor of General Studies
Holland, Sheryl R	Integr'td Reading/Writing(INRW)	Master of Arts Bachelor of Arts
Holland, Toni M	English	Doctor of Philosophy Master of Arts
Hope, Lorena Ashley	Art	Master of Fine Arts Bachelor of Fine Arts
Hsieh, Juurong	Engineering	Doctorate Master of Science
Hsu, Rosa	Librarian, Public Service	Master of Arts
Hua, Vi Vi	Fashion Design	Bachelor of Science Associate of Applied Science

		Certificate
Humphrey, Beverly Jean	Industrial Electricity	Doctor of Education Master of Professional Acctg Bachelor of Science Associate of Applied Science
Huntington, John S.	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Hyrapiet, Shireen Ann	Geography	Master of Science Doctor of Philosophy
Idlebird, Joe Calvin	Developmental Math	Master of Education Bachelor of Science
Imo, Charles N.	Biology	Doctorate of Education Master of Science
Innis, Janis Johnston	English	Master of Arts Bachelor of Arts
Iranpour, Mahzad	Chemistry	Master of Science
Irvin, Derek Odell	Workplace Literacy	Bachelor of Applied Arts & Sci
Iyer, Sumithra Sivasamy	Mathematics	Master of Science
Jabbur, James Ramzi	Biology	Doctor of Philosophy Bachelor of Science
Jach, Theresa Rae	History	Doctor of Philosophy Master of Arts
Jackson III, Herbert	Respiratory Therapist	Doctor of Education Master of Science Certificate Bachelor of Science Associate of Applied Science
Jackson, Gretchen	History	Doctor of Education Master of Arts Bachelor of Arts
Jackson, James	Heavy Vehicle Maintenance	Associate of Applied Science
Jackson, Rodney A	Police In-Service	Certificate
Jain, Renu	Biology	Doctor of Philosophy
Jalilian Tehrani, Mohammad H	Accounting	Doctor of Philosophy
Jay, Thomas R	Developmental Math	Master of Education
Jenkins, Patricia K.	Dental Hygiene	Bachelor of Science
Jenson, Cinnamon Ann	Philosophy	Doctor of Philosophy Master of Philosophy Bachelor of Science
Jenson, Jason Christopher	Philosophy	Doctor of Philosophy Master of Arts

		Bachelor of Science
Jiang, Zhiqin	Drafting	Doctor of Philosophy Master of Science
Jimenez, Marlen Pena	Pharmacy Technician	Master of Science Bachelor of Arts
John, Sofia A.	Assoc Degree Nursing	Doctorate of Education Master of Science Nursing Bachelor of Science Nursing
Johnson, Alan	History	Master of Arts
Johnson, Cassidy Brown	Biology	Doctor of Philosophy
Johnson, Machuria Mallette	Business Technology	Master of Business Admin Bachelor of Business Admin
Johnson, Rhonda V	Business Technology	Master of Business Admin Bachelor of Business Admin
Johnson, Shereeta S.	Hotel/Restaurant	Master of Business Admin Bachelor of Science
Johnson, William B.	Criminal Justice	Doctor of Philosophy Master of Science Bachelor of Science
Johnson-Burgess, Linda Ann	English	Doctor of Philosophy
Jones, Linda Kay	Teacher Education	Doctor of Philosophy Master of Arts Bachelor of Science
Jones, Lucy	Cosmetology	Associate of Applied Science
Jones, Roy Roderick	Welding	Master of Education Bachelor of Science
Jonstone, Joy E	Intensive English	Juris Doctor
Jose, Charlet	Assoc Degree Nursing	Doctor of Philosophy Master of Science Nursing
Joseph, Jolly K	Assoc Degree Nursing	Doctor of Philosophy Master of Science
Joseph, Mildred Lovell	Librarian, Public Service	Master of Science
Joseph, Neethu Kallarackal	Mathematics	Master of Science Bachelor of Science
Jrad, Lazhar	Geology	Doctor of Philosophy Bachelor of Science
Juengel, Christopher W.	Digital Communication	Doctor of Philosophy Master of Arts Bachelor of Science
Jukes, Kay B	Dental Assisting	Bachelor of Science Associate of Arts

Kahan, Clayton Eugene	History	Master of Arts Bachelor of Arts
Kalajo, Houssam	Mathematics	Master of Science Bachelor of Science
Kallarackal, Eunice T.	Mathematics	Master of Science
Kaminski, Stanley M.	Art	Master of Fine Arts
Kamm, Jeffrey M	Intensive English	Master of Arts
Karo, Marlinda W	Librarian, Public Service	Master of Library Science Master of Arts Bachelor of Arts
Kaushik, Kimber Lee	Developmental Math	Master of Science Bachelor of Science
Keller, June Elizabeth	Engineering Science	Master of Science Bachelor of Science
Kerr-Herally, Lauran Ashlee	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Keys, Daphene Holley	Librarian, Public Service	Master of Arts Master of Library Science
Khan, Manzurul H	Computer Science	Master of Science
Khansari, Alihossein	Developmental Math	Doctorate of Education Master of Science Bachelor of Science
Khuong, Christopher Q	Digital Gaming & Simulation	Associate of Applied Science
Kilani, Shadi Bashar	Biology	Master of Science
Kinfe, Biniam	Mathematics	Master of Science Bachelor of Science
King, Malcolm Cameron	Digital Communication	Bachelor of Arts
Kirkpatrick, Michelle Renee	Assoc Degree Nursing	Master of Science Associate of Science
Kishell, Jason D	Art	Master of Fine Arts
Klander, Sharon K	English	Doctor of Philosophy
Kline-Cherry, Statha Levon	Developmental Math	Doctorate of Education Master of Education
Koffel, Linda S	Marketing Mgmt.	Master of Science Bachelor of Arts
Koledoye, Kimberly Adepeju	Student Success	Doctor of Education Master of Education Bachelor of Arts
Koshy, Anna	Biology	Doctor of Philosophy
Kotrla, Tina R.	Art	Master of Fine Arts Bachelor of Arts

Kovalchuk, Sergius	Art	Master of Fine Arts Bachelor of Arts
Kowai-Bell, Neneh	Psychology	Doctor of Philosophy Bachelor of Arts
Kranz, Dwight S	Geology	Master of Science Bachelor of Science
Kreutter, Jessica Fortier	Art	Master of Fine Arts Bachelor of Arts
Krieg, Elaine G.	Integrated Reading/Writing	Master of Education Bachelor of Arts Certificate
Krishnaswamy, Ammani	Chemistry	Doctor of Education Master of Science
Krishnaswamy, Komala	Chemistry	Doctor of Philosophy
Kruszewska, Donna	Intensive English	Master of Education Bachelor of Arts
Ku, Show-Hwa	Computer Science	Master of Science
LaBorde III, Harold Joseph	Librarian, Public Service	Master of Library Science
Lackey, Linda D	Vocational Nursing	Doctorate of Education Master of Science
Lacroix, Laurel	English	Doctor of Philosophy Master of Arts
Lambert, Diane P	Chef/Culinary Arts	Master of Business Admin Bachelor of Business Admin Associate of Applied Science
Lander, Anne Mary	Surgical Technology	Associate of Applied Science Certificate
Landry, Terese Yolande	Psychology	Master of Science
Langston III, James	English	Master of Arts
Lasher, Megan Yvonne	Dance	Master of Fine Arts
Laszczynski, Melinda Anne	Art	Master of Fine Arts
Lawson, Mary Pyron	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Leathers, Reginald N	Digital Communication	Master of Arts Bachelor of Science
LeBlanc, Gary L	Government	Master of Public Administration
Lee, Michael A	Interpreting / sign Language	Master of Education Bachelor of Science Associate of Applied Science
Lee, Soyeon	English	Master of Arts Bachelor of Arts

Lee, Yoojin	Music	Doctorate Master of Music
Lehtola, Lori A	History	Doctor of Philosophy Master of Arts
Lestrer, James Robert Leveston, Donny Lee	Industrial Electricity English	Associate of Applied Science Master of Arts Bachelor of Arts
Lewis, Charles L	Accounting	Master of Science Bachelor of Business Admin Bachelor of General Studies
Lewis, Desmond Domanick	Integrated Reading/Writing	Master of Arts Bachelor of Arts
Lewis, Nicole Erica	Student Success(Educ)-Academic	Doctorate of Education Master of Arts
Liakos, David	Philosophy	Doctor of Philosophy Master of Arts Bachelor of Arts
Linkin, Stephen	Computer Networking & Telecomm	Bachelor of Arts Associate of Arts
Litong, Domingo J.	Mathematics	Master of Education Bachelor of Science
Liu, Hairong	Developmental Math	Master of Science Bachelor of Science
Liu, Sherry Lobrin, Maria Theresa	Mathematics Radiologic Technology	Master of Science Master of Health Administration Bachelor of Science
Locascio, Joseph J Loheed, Jessica	Music Art/History	Bachelor of Arts Doctor of Philosophy Master of Arts Bachelor of Arts
Loeb, Victoria Williamson	Intensive English	Master of Arts Bachelor of Arts
Loesch Jr., William Thomas	Biology	Doctor of Philosophy Master of Science
Lopez, Maria M. Loubser, Ileana Alexandra Louis, Mary M	Spanish English Government	Master of Arts Master of Arts Master of Arts Master of Business Admin
Love III, Joel Daniel	Music	Doctorate Master of Music

		Bachelor of Music
Lowery, Ernest	Mathematics	Masters Bachelor of Science
Lozada Jr., Ramon A	Business	Master of Business Admin Master of Science Bachelor of Business Admin
Lu, Dongning	Chemistry	Doctor of Philosophy Master of Applied Science
Lukasik, Mary Frances	Intensive English	Master of Arts
Lunday, Robert	English	Doctor of Philosophy
Lundgren, Cynthia K	Medical Assistant	Bachelor of Science
Lyman, Rajone Adelle	Integr'td Reading/Writing(INRW)	Master of Education
Lynch, Jill Christine	ESOL / Intensive Englis	Doctorate Master of Arts Bachelor of Science
Lytton, Frances Fenton	Music	Master of Arts Bachelor of Arts
Macadam-Somer, Karen M	Physical Therapy	Bachelor of Science
Maddox, Donald L	Chef/Culinary Arts	Certificate
Mahon, Brian C.	Biology	Doctor of Philosophy Associate of Science
Major, Penni S	Geology	Master of Science
Mann Jr., Hugh M	Heavy Vehicle & Truck Repair	Certificate
Mansoor, Elvedina N/A	Biology	Doctor of Philosophy Master of Science Bachelor of Science
Marek, John N	Computer Networking & Telecomm	Master of Science Bachelor of Arts Bachelor of Science
Marks, Aaron G.	Physics	Doctor of Philosophy Master of Science
Marlar, Ann Michelle	Art	Doctor of Philosophy Master of Arts Bachelor of Arts
Marshall, Joy L	Biology	Doctor of Philosophy Master of Science Bachelor of Science
Martin, Byran N.	Government	Doctor of Philosophy Master of Arts
Martin, Melba B	Librarian, Public Service	Master of Library Science
Martinez, Betty G	Cosmetology	Associate of Applied Science Certificate

Mathew, Mini	Developmental Math	Master of Science Bachelor of Arts
May, Vicki L	Emergency Medical Services	Master of Education Bachelor of Science
Mayer, Jeryn Woodard	Art/History	Master of Arts
Mays, Melvin E.	Audio Recording/Filmmaking	Master of Science Bachelor of Arts Certificate
Mc Bane, Roderick J.	Mathematics	Master of Science Bachelor of Science
McCain, Devin Emery	English Language Skills(CE)	Master of Arts Bachelor of Arts
Mccartney, Danna Sue Lamb	Librarian, Public Service	Master of Science Bachelor of Arts
Mccrary, Katrina Agneauelle	Human Serv	Master of Philosophy Master of Science Bachelor of Arts
Mcdade Jr., Joseph Skelton	English	Doctor of Philosophy Master of Arts Bachelor of Arts
McDaniel, Brenda Joyce	Assoc Degree Nursing	Doctor of Philosophy Master of Science Bachelor of Science Nursing
McFaden, William Clay	Government	Doctor of Philosophy Master of Arts
McGaughy, Joseph K	History	Doctor of Philosophy Master of Arts
McKenzie, Stephanie D	Business Administration	Master of Business Admin
McKnight, Laura L	Psychology	Master of Arts Bachelor of Science
Mcneill, Paul Douglas	English	Master of Arts Bachelor of Arts
Mcqueary II, Glenn Melvin	Accounting	Master of Arts Bachelor of Science
McWhinney, Dalton R.	Horticulture Technology	Doctorate Vet Medicine
Medina, Gisele M	Intensive English	Master of Science Bachelor of Science
Mehta, Rashmi	Mathematics	Master of Science Bachelor of Science
Mejia, Melinda	Interdisciplinary Studies / Humanities	Doctor of Philosophy Master of Arts
Menon Chembottil, Sarath Kumar	Sociology	Doctorate of Education

Menon, Shailaja Balkrishna	Sociology	Doctor of Philosophy Master of Public Health
Merritt, Richard G	Biology	Doctor of Philosophy Master of Arts Bachelor of Arts
Miller Jr., Calvin Carey	AC & Refrigeration	Master of Education Bachelor of Science
Miller, Anne	Physical Therapy	Master of Science Bachelor of Science
Miller, Roger D	AC & Refrigeration	Associate of Applied Science
Miller, Sara Louise	English Language Skills(CE)	Bachelor of Science
Millette, Andrea Suzanne	Digital Communication	Master of Fine Arts Bachelor of Fine Arts
Mills, Jacob S.	Philosophy	Doctor of Philosophy Master of Arts
Mittal, Chandra K.	Biology	Doctor of Philosophy
Moghadassian, Mohammad	Economics	Master of Arts Bachelor of Science
Mohanraj, Remya	Biology	Doctor of Philosophy Master of Arts Master of Science
Mondal, Sujit Kumar	Corrosion Technology	Doctor of Philosophy
Monroe, Lakessa Necole	Medical Assistant	Master of Science Bachelor of Science
Moon, Joe Seung-Hoon	Psychology	Master of Arts Bachelor of Arts
Moon, Lizette	Spanish	Master of Arts Bachelor of Arts
Moore, Christiane Susanne	Integr'td Reading/Writing(INRW)	Bachelor of Arts
Moore, Linda M.	Business Administration	Juris Doctor
Moore, William Craig	Teacher Education	Master of Education Bachelor of Arts
Morecook, Robert C	Psychology	Doctor of Philosophy Master of Arts Bachelor of Arts
Moretta, John	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Morris, Edmund Osita	Engineering	Master of Science
Mosley, Rhonda V	Tailor/Alterations	Certificate
Mosqueda, Diane Elizabeth	Assoc Degree Nursing	Doctor of Nurse Practice Master of Science

		Bachelor of Science
Moussavi, Robabeh Seyed	Biology	Doctor of Philosophy
Muhammad, Dorothy Alesia	Developmental Math	Doctor of Philosophy
		Master of Science
		Bachelor of Science
Mujahid, Victoria L.	Integr'td Reading/Writing(INRW)	Master of Arts
		Bachelor of Science
Mullins, Irina Konstantinovna	Physics	Master of Science
Murphy, Randall Wade	Psychology	Doctor of Education
		Master of Arts
		Bachelor of Arts
Murzyn, Kristin Lee	Government	Master of Arts
		Master of Science
		Bachelor of Arts
Muth, Edward	Drama	Master of Fine Arts
Nagelhout, Gary M.	Heavy Vehicle Maintenance	Associate of Applied Science
Najafi, Kathy Tsianina	Intensive English	Master of Arts
		Bachelor of Arts
Namli, Suat Sean	Mathematics	Master of Science
Nantz, William C	Accounting	Juris Doctor
		Bachelor of Business Admin
Naranjo, Carlos Raidel	Spanish	Doctor of Philosophy
		Master of Arts
		Bachelor of Arts
		Certificate
Navid-Tabrizi, Hossein	Mathematics	Masters
Nayar, Madhavi Arikath	Biology	Master of Science
Nealy, Robin Patrice	Integr'td Reading/Writing(INRW)	Doctor of Philosophy
		Bachelor of Arts
Neamah, Mohanned	Dental Assistant	Bachelor of Science
Newlin, Julye G	Audio Recording/Filmmaking	Master of Arts
Newton, Charles M	Economics	Master of Arts
		Master of Business Admin
		Bachelor of Arts
Ngang, Fidelis N.	Computer Networking & Telecomm	Master of Science
Nguyen, Giang Tuyen	Dental Hygiene	Bachelor of Science
		Associate of Science
Nguyen, Hien The	Developmental Math	Master of Science
		Bachelor of Science
Nguyen, Maryann T.	English	Master of Arts
		Bachelor of Arts

Nikzad, Ali R	Computer Science	Master of Science Bachelor of Science
Nioupin, Auguste N	Biology	Master of Science
Nitzberg, Aric Scott	MIDI & Electronic Music	Master of Science Bachelor of Arts
Njemanze, Harold K.	Biology	Doctor of Philosophy Master of Arts Bachelor of Science
Nobles, Catherine E	Radiologic Technology	Master of Education Bachelor of Arts
Noland, Natalia Nikolayevna	Translation & Interpretation	Doctor of Philosophy Master of Arts
North, Anson	Pharmacy Technician	Master of Science Bachelor of Science
Norwood-Todd, Pamela Marie	Child Development	Doctor of Education
Novak, Timothy C.	Art/History	Master of Arts Master of Business Admin
Nwachukwu, Ernest E	Mathematics	Master of Science
Nwaguru, Israel N	Mathematics	Master of Science
Nwaneri, Collins	Chemical/Petr.Engineering Tech	Master of Engineering
Obeyesekere, Mandri	Mathematics	Doctor of Philosophy
Ochoa Contreras, David Rene	Welding Non-Apprenticeship	Certificate
Odion, Charles I	Mathematics	Masters
Ofoegbu, Lilian Chinyere	Assoc Degree Nursing	Doctor of Nurse Practice Master of Science Nursing Bachelor of Nursing Degree Associate of Arts
Olivares, Jaime R.	History	Doctor of Philosophy
Olowe, Abiodun	Petroleum Engineering Technology	Doctor of Philosophy Master of Philosophy Bachelor of Science
Oloyede, Bolaji	Chemical/Petr.Engineering Tech	Master of Engineering Bachelor of Science
Ondruch, Lara Lynne Belt	EMS	Bachelor of Science
O'Neil, Jennifer Snyder	Biology	Doctor of Philosophy
Ononye, Ambrose Ejiofor	Engineering	Doctor of Philosophy
Opara, Chukwuemeka Onyewuchi	Biology	Doctor of Medicine
Osborn, Paul E	HVAC	Certificate
Osifodunrin, Solomon Adegoke	Mathematics	Doctor of Philosophy Master of Science Bachelor of Science
Oudonesom, Viengvilay	English	Master of Fine Arts

Overton, Karen E	Business Administration	Master of Business Admin Bachelor of Arts
Owens, James	Welding	Associate of Applied Science
Oyinlola, Adetoun	Chemistry	Doctor of Philosophy Master of Science
Pace, Rhonda S	Radiologic Technolgt	Bachelor of Prof. Studies
Palmer, Mandy Lea	English	Master of Arts Bachelor of Arts
Parikh, Ashlesha	Physical Therapy	Master of Science Bachelor of Science Associate of Science
Park, Alan Leslie	Physical Therapy	Doctor of Physical Therapy Bachelor of Science
Parker, Donald R.	Biology	Doctor of Medicine Bachelor of Science
Parr, Janet S	Banking / Finance	Master of Science Bachelor of Business Admin
Parrott, Richard T	Mental Health Assoc	Doctor of Philosophy Master of Arts
Patke, Christopher Allan	History	Master of Arts Bachelor of Arts
Patterson, James C	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Patterson, Pamela Marie	Vocational Nursing	Bachelor of Science
Paye Sr., Lawrence Nyayowagbian	Economics	Master of Science Bachelor of Science
Payne, Melinda A	English	Master of Arts Bachelor of Arts
Pearson, Anthony M	Sociology	Master of Arts
Pena, Claudia Patricia	English Language Skills(CE)	Master of Education Bachelor of Arts
Pena, Janet	Pharmacy Technician	Bachelor of Business Admin
Penaloza, Orlando	Computer Networking & Telecomm	Master of Science Bachelor of Science
Pence, Nancy Ann	Mathematics	Master of Education Master of Science Bachelor of Arts
Pereira, Patricia M.	Medical Assistant	Doctor of Medicine Bachelor of Science
Pfeiffer, Timothy James	Legal Assistant	Bachelor of Business Admin
Pham, Minh Q	Drafting	Bachelor of Science

Phan, Hong Thi Thu	Accounting	Master of Science
Phanse, Shilpa G	Computer Programming	Master of Science
Phillips, Micheal S	Computer Networking & Telecomm	Associate of Applied Science
Phinazee, Nicole Keeler	Human Service Technology (HPRS)	Master of Science
Placeres, Ariel Lorenzo	EMS	Associate of Applied Science Certificate
Pleasant, Cheryl Leonard	AC & Refrigeration	Bachelor of Science
Poage, Nathan M.	Philosophy	Master of Arts Bachelor of Arts
Polukuri, Rachel Gurrala	Economics	Master of Arts Master of Education Bachelor of Arts Bachelor of Science
Pope, Tonia Rochelle	Speech	Master of Arts
Porcynaluk, Patricia	Art	Master of Fine Arts
Porter, Peggy	Integrated Reading and Writing	Master of Arts Bachelor of Arts
Potosky, Jacqueline S.	Business Technology	Master of Education Bachelor of Science
Potter, Steven R	Art	Master of Fine Arts
Powell, Yvette Lorraine	English	Master of Arts Bachelor of Science
Prather Jr., Richard A	Mathematics	Master of Arts
Proctor, Betty J	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Puder, Nichelle Renee	English	Master of Arts Bachelor of Arts
Punch Lagard, Rita Lanell	Business Technology	Master of Business Admin Bachelor of Business Admin
Pyrog, Sergii	Drafting & Design Engineering Technology	Master of Science Bachelor of Science
Qureshi, Abdul Rasheed	Engineering	Master of Electrical Engineering
Raborn, Robin Estelle	Student Success(Educ)-Academic	Master of Education Bachelor of Fine Arts
Rahighi, Mohammad Hamid	Instrumentation & Controls Engineering Technology	Master of Science Bachelor of Science
Ramey, Michael Adam	History	Master of Arts
Ramharack, Sukhlal	Developmental Math	Master of Science Bachelor of Arts
Randle, Justine Basha	Librarian, Public Service	Master of Arts Master of Science

Raney, Karen C.	EMS	Bachelor of Arts Master of Science Bachelor of Arts Associate of Applied Science
Rangel Jr., Nicolas	Speech	Doctor of Philosophy Master of Arts Bachelor of Arts
Rangel, Katherine Lynne	Pastry Arts	Associate of Applied Science
Rao, Suma V.	Computer Networking & Telecomm	Master of Science
Ratliff, Jerry	Corrosion	Bachelor of Science Associate of Science
Raynor, Autumn Fawn	Speech	Master of Arts
Reina, Juan C.	Physics	Doctor of Philosophy Master of Arts
Resweber, Shannon Jo	Developmental Math	Doctor of Philosophy Master of Arts Bachelor of Arts Certificate
Revelle, Clyde Ray	Comm. Truck Driving	Bachelor of Arts
Reyes, Manuel	Economics	Juris Doctor Master of Arts Bachelor of Arts
Reyna, Rolando Jesus	Art	Master of Fine Arts
Reyna, Veronica Lynn	Government	Doctor of Philosophy Bachelor of Arts
Rhea, Donna L	Government	Master of Arts
Rice, Richard C.	ESL / Intensive English	Bachelor of Arts Master of Education
Rich, Wilhelmina L	Assoc Degree Nursing	Master of Science
Richards, Bennie B	Integr'td Reading/Writing(INRW)	Doctorate of Education Master of Education
Richards, Renee Lyane	ESL	Master of Arts Bachelor of Arts
Ricks, Margie A	Intensive English	Master of Liberal Arts
Riley, Melissa H	Assoc Degree Nursing	Master of Science Nursing Bachelor of Science
Rix, Deanna L.	Assoc Degree Nursing	Master of Science Nursing
Rizvi, Shahjahan A	Chemistry	Master of Science
Robbins, Wendy Lee	Digital Communication	Master of Fine Arts
Roberts, John L.	Mathematics	Master of Science Master of Arts
Robertson-Shirdon, Diana Mae	Medical Assistant	Associate of Science

Robinson, Carla D	English	Master of Arts Bachelor of Arts
Robinson, Joella K	History	Master of Arts Bachelor of Arts
Robinson, Keitha Ramsey	Librarian, Public Service	Master of Science Bachelor of Science
Roddy, Meghan Holahan	English	Juris Doctor Master of Arts Bachelor of Arts
Rodgers, Lamont D	Philosophy	Doctor of Philosophy Master of Arts
Rodriguez Guardia, Carlos Emilio	English Language Skills(CE)	Bachelor of Science
Rodriguez, Samantha M	History	Doctor of Philosophy Master of Arts Bachelor of Arts
Rogovein, Reisa M	English	Master of Arts
Rolnik, Claire Y	English for Foreign Speakers	Doctor of Philosophy
Romero-Borja, Fernando	Physics	Doctor of Philosophy
Rosborough, Carol Denise	Business Technology	Juris Doctor Bachelor of Arts
Rosenkranz, Linda J	English	Master of Arts Bachelor of Arts
Rosing, Richard	Mental Health Associate	Master of Science Bachelor of Arts
Ross, David A	ESL / Intensive English	Master of Arts Bachelor of Arts
Ross, Michael J.	Construction Technology	Master of Business Admin Bachelor of Architecture Associate of Applied Science
Ross-Nazzal, James Anthony	Associate in Arts (Multidisciplinary Studies)	Doctor of Philosophy
Rucker, Charles Anthony	Hotel/Restaurant	Associate of Applied Science
Ruhleder, Kathleen	Music	Doctorate Master of Music Bachelor of Music
Russell, Jack	Comm. Truck Driving	Bachelor of Arts
Saber, Samir	Computer Networking	Master of Science Bachelor of Science
Saenz, Karen P	Psychology	Doctorate of Education Master of Education Bachelor of Science
Said, Adnan Nemr	Mathematics	Master of Science

		Bachelor of Science
Salazar, Denisse Selene	Radiologic Technolgt	Bachelor of Science Associate of Applied Science
Salehibakhsh, Fatemeh	Mathematics	Masters
Salinas II, Luis L.	Sociology	Doctor of Philosophy Master of Arts
Salisbury, Ruth Adriana Rodriguez	Speech	Master of Arts
Sanchez, Roberto	Manufacturing Engineering Technology	Bachelor of Science
Sandberg, Stewart Kim	Geology	Doctor of Philosophy
Sanderson, Linda	EMS	Associate of Arts Associate of Applied Science Certificate
Sapolucia, Togba C	Mathematics	Master of Science
Sardesai, Swati A	Digital Communication	Associate in Applied Arts
Sarkisov II, Sergey S.	Mathematics	Doctor of Philosophy Master of Science Bachelor of Science
Savant, Smita Ajay	Biology	Doctor of Philosophy
Sawant, Leena Abhay	Biology	Doctor of Philosophy
Schaet, Catherine Clare	Nuclear Medicine	Bachelor of Arts Associate of Applied Science Certificate
Schbat, Manhal	Biology	Doctor of Medicine Bachelor of Science
Schlanger, Deanne	English-Dir Honors College	Master of Arts Master of Business Admin Master of Fine Arts Bachelor of Arts
Schultz, Debra A	Drama	Master of Arts Bachelor of Fine Arts
Schulz, Gavin	English	Doctor of Philosophy Master of Arts Bachelor of Arts
Scott, Harold J.	Digital Communication	Bachelor of Arts
Scott, Tonya Maristine	English	Doctor of Philosophy Master of Arts
Sen, Partha	Biology	Doctor of Philosophy
Sen, Pramila	Biology	Doctor of Philosophy
Sera, Wendy E	Associate in Science	Doctor of Philosophy
Sever, Jana S.	Psychology	Master of Arts Bachelor of Science Associate of Arts

Seviour, Elena Genevieve	Biology	Doctor of Philosophy Bachelor of Science
Shah, Ancelin T.	Computer Systems Networking	Master of Science Bachelor of Science
Shah, Nimish	Biology	Master of Science
Shanehsaz, Ray Reza	Computer Networking & Telecomm	Master of Info Tech Mgmt Bachelor of Science
Sharma, Chandeshwar	Biology	Doctor of Philosophy Master of Arts
Sharma, Meenu Kaila	Business Administration	Master of Business Admin Master of Philosophy
Sharp, Tyrone P.	Nursing	Doctor of Philosophy Master of Science Bachelor of Science
Shawareb, Malek S	Intensive English	Doctorate of Education Master of Education
Shay, Cammy	Government	Doctor of Philosophy Master of Arts Bachelor of Arts
Sheehan, Laura M	English Foreign Speakers	Master of Arts Bachelor of Arts
Sheikh-Hussain, Ayman	Economics	Doctor of Philosophy
Shell, Christy L	Business Administration	Master of Arts Master of Business Admin Bachelor of Arts
Shepherd, Angela Renee	Occupational Therapy Assistant	Master of Education Bachelor of Health Science
Sherman, Nora Jo	Business Administration	Doctor of Philosophy Master of Arts Bachelor of Arts Associate of Arts
Shin, Juanna Inez	Librarian, Public Service	Master of Library Science Bachelor of Arts
Shippy, James E.	Student Success(Educ)-Academic	Doctor of Philosophy Master of Education Bachelor of Science
Shivers, Paralee Annette	Speech	Master of Arts Bachelor of Arts
Shomaker, Mark Wayne	Government	Juris Doctor Master of Public Administration Bachelor of Arts
Shukla, Alka	Chemistry	Master of Science

Sihi, Supriya	Chemistry	Master of Science
Silva, Eva	Intensive English	Bachelor of Arts
Simpson, Nelson G.	Drafting	Master of Science Bachelor of Science
Singh, Jyothi	Chemistry	Doctor of Philosophy Master of Philosophy
Singleterry, Tovia	Cosmetology	Associate of Applied Science Certificate
Sinmaz, Ercan	Accounting	Master of Science Bachelor of Science
Slowik, Jeffrey Allen	AC & Refrigeration (HVAC)	Practitioner
Smith Jr., Edgar	Mathematics	Master of Arts Bachelor of Arts
Smith Whigham, Gwendolyn Elaine	Biology	Doctor of Chiropractic
Smith, Bren Kellar	Speech	Master of Arts Bachelor of Science
Smith, Courtney Jo	English	Master of Fine Arts Bachelor of Arts Associate of Arts
Smith, Glenn	Nuclear Medicine	Bachelor of Science
Smith, James A	Librarian, Public Service	Master of Arts Master of Library Science Bachelor of Arts
Smith, Laura A	Integr'td Reading/Writing(INRW)	Master of Education Bachelor of Science
Smith, Louis Etta	Business Technology	Master of Arts Bachelor of Arts
Smith, Nathan D	Philosophy	Doctor of Philosophy
Smith, Newton	Fire Science & Safety	Associate of Applied Science
Snelson, Michele R	Cosmetology	Bachelor of Science Associate of Applied Science
Snider, Gary K.	Drama	Master of Fine Arts
Sofranko, Michael	English	Master of Fine Arts
Soliz, Rudy	Business Administration	Doctor of Philosophy Master of Arts Bachelor of Science
Soltani, Seyed Shahin	Biology	Doctor of Medicine
Soto, John M	Auto Body Repair	Associate of Applied Science Certificate
Spann, Larry D	Fire Protection Tech	Certificate
Speer, John	Government	Doctor of Philosophy Master of Arts

Stagg, Danielle R	Speech / Communication	Doctor of Education Master of Arts Bachelor of Arts
Stariha, Carolyn F.	Medical Records	Bachelors Associate of Applied Science
Starr, Joseph T	Intensive English	Master of Arts Bachelor of Arts
Stauffer, Patrick Wayne	English	Master of Science Bachelor of Science
Sterling, Shani Dessie Inell	Dance	Master of Fine Arts
Stevens, Erica	English	Doctor of Philosophy Master of Arts
Stevens, Genevieve D	Psychology	Doctor of Philosophy Master of Education Bachelor of Arts
Stidham, Jennifer Boudreaux	Librarian, Digital Resources	Master of Science
Stovall, Shandri Allen	Business Technology	Master of Education Bachelor of Business Admin
Strayhorn, Faye	Radiography	Master of Business Admin Bachelor of Science
Sundaram, Chitra	Biology	Doctor of Philosophy
Suraokar, Milind	Biology	Doctor of Philosophy Master of Science
Suresh, Lakshmi Saritha E	Developmental Math	Master of Science
Sutter, John B	Government	Juris Doctor Master of Arts
Sutter, J-Ramsey	Government	Juris Doctor Master of Arts Bachelor of Arts
Sykes, Christy Jo	Culinary Arts	Bachelor of Arts Associate of Science
Tafa, Kumela K	Natural Sciences	Doctor of Philosophy
Tahvilian, Hosein	Electronics Engineering Tech	Master of Science
Tam, Karman L	Student Success(Educ)-Academic	Doctor of Education Master of Arts
Tan, Carolyn Ghim Poay	Digital Communication	Master of Arts Bachelor of Arts
Tang, Klairon K.	Librarian, Catalog	Master of Library Science Master of Public Administrtrn
Tannahill, R Neal	Government	Doctor of Philosophy Master of Arts Bachelor of Arts

Tapp, Jennifer E.	Librarian, Public Service	Master of Library Science
Taylor, Jean Lenore	Librarian, Digital Resources	Master of Library Science Bachelor of Fine Arts
Taylor, Mia Deanka	Business Technology	Master of Business Admin Bachelor of Science
Teas, Andrew Parker	Government	Master of Arts Bachelor of Arts
Tebbetts, Karlien	Medical Laboratory Technician / Medical Scribe	Bachelor of Science Associate of Arts
Teel, Deanna	International Business	Master of Business Admin Bachelor of Science
Tefera, Getaneh Bayu	Mathematics	Doctor of Philosophy Master of Science
Tesh, Geneva Marie	Intensive English	Master of Arts Bachelor of Arts
Thomas, James B	History	Doctor of Philosophy
Thomas, John C	Mathematics	Doctor of Philosophy
Thomas, Molly	Biology	Doctor of Medicine
Thomas, Susan Santhi	Assoc Degree Nursing	Master of Science Nursing
Tien, Lifang	Biology	Doctor of Philosophy
Tiller, Mark	Government	Master of Arts Bachelor of Arts
Tinnermon, Portia A	Sociology	Master of Arts
Tomy, Valsamma	Developmental Math	Master of Science
Torki-Saberi, Mohammad	Mathematics	Master of Science
Toropu, Cristina	Mathematics	Doctor of Philosophy
Tovar Jr., Teodoro	Respiratory Therapist	Master of Arts Bachelor of Science Associate of Applied Science
Tran, Steven Nam	Government	Doctor of Philosophy Master of Arts Bachelor of Science
Trevino II, Robert M	Psychology	Master of Science
Trotter-Washington, Victoria	Integr'td Reading/Writing(INRW)	Master of Education Bachelor of Arts
Trumbo, Shawn David	Machining Technology	Associate of Applied Science
Tsai, Addie B.	English	Doctor of Philosophy Master of Fine Arts Bachelor of Arts
Tsui, Annie L	Integrated Reading & Writing	Master of Education Bachelor of Science

Turk, Amanullah	Manufacturing Process	Master of Engineering
Tussing, Phillip E.	Economics	Master of Arts
Tyson, Carla L	Health Information Technology	Doctorate of Education Master of Science
Tyson, Velva	Business Technology	Doctor of Philosophy Master of Business Admin Bachelor of Science
Ulhaque, Adnan	Developmental Math	Bachelor of Science
Unruh, Phil F	Developmental Math	Master of Arts Bachelor of Science
Usen, Emmanuel E	Mathematics	Master of Science Bachelor of Science
Uskup, Erhan	Computer Science	Master of Business Admin Bachelor of Science
Vacca, Jennifer R	English	Master of Arts Bachelor of Arts
Valdez, Juanita Marie	Art	Master of Fine Arts
Vallejo, Bernardo	ESL	Doctor of Philosophy Master of Arts Bachelor of Arts
Van Damme, Eddy	Baking	Associates
Varghese, Ranjana Ruth Dasleen	English	Doctor of Philosophy Master of Fine Arts
Varner, Justin Ryan	Art	Master of Fine Arts
Villacis, Carlos H	World Languages	Master of Arts Bachelor of Arts
Villamil, Melissa Marie	Intensive English	Master of Science Bachelor of Arts
Villanueva, Armando Ricardo	HVAC	Certificate Associate of Applied Science
Villarreal, Rodolfo C	History	Master of Arts
Villarreal, Rolando Rene	Welding	Associate of Applied Science
Villarreal, Stalina Emmanuelle	English	Master of Fine Arts Bachelor of Fine Arts
Villines, Jeffrey Raymond	English	Doctor of Philosophy Master of Arts
Virgilio, James Gasper	ITTD	Master of Education Bachelor of Arts
Voight, Michele Renee	Physical Therapy Assistant	Master of Public Administration Bachelor of Science
Voss, Eugene	Integrated Reading/Writing	Master of Arts

Wachtendorf, Kirt A.	Welding	Certificate
Wagle, Jyoti R	Biology	Doctor of Philosophy
Waldo, Jennifer Elizabeth	Film Production	Master of Fine Arts Bachelor of Arts
Walton, Carmen	Librarian, Public Service	Master of Library Science Bachelor of Science
Walton, Jeffrey S.	Audio Recording	Practitioner
Ward, Pauline Patricia	Biology	Doctor of Philosophy
Warthling, Daniel David	ITTD	Master of Science Bachelor of Arts
Washington, Brenda	Speech	Doctor of Philosophy Master of Arts
Washington, Carmen L.	Business Technology	Master of Arts Bachelor of Science
Washington, Mira A	Librarian, Public Service	Master of Library Science
Waters, Stephen Floyd	Auto Mechanic	Associate of Applied Science
Watson, Carol Lafaye	Psychology	Doctor of Education Juris Doctor Master of Arts
Watson, Penny Lea	Government	Master of Arts Bachelor of Arts
Watson, Randall H	English	Doctor of Philosophy
Wattuhewa, Garvin	Physics	Doctor of Philosophy Master of Science Bachelor of Science
Webster, Matthew Allen	Psychology	Doctor of Education Master of Arts Bachelor of Science
Wells, David	Audio Recording	Associate of Applied Science
Westerfield, Shana R	Assoc Degree Nursing	Doctor of Philosophy Master of Science
Whitaker, Cheryl L.	Fashion MDSG	Bachelor of Science
White, Brandon Lawrence	English	Master of Fine Arts
White, David B.	History	Master of Arts
Whitney, Linda Marshall	Psychology	Masters Bachelor of Science Associate of Arts
Wiersema, Donna S	Biology	Master of Business Admin Master of Science Bachelor of Science
Wildermuth, Lisa Ann	Art	Master of Arts
Wilequet, Jeanne	Computer Science	Associate of Arts

Williams, Audrey	Cosmetology	Associate of Applied Science
Williams, Cynthia	English	Doctor of Philosophy Master of Fine Arts
Williams, Hillard Gerard	Integr'td Reading/Writing(INRW)	Master of Arts Bachelor of Science Associate of Applied Science Associate of Arts
Williams, Joel	Mathematics	Master of Science Bachelor of Arts
Williams, Penelope	Licensed Vocational Nursing	Doctorate of Education Master of Education Bachelor of Science
Williams, Shawna Dionne	History	Master of Arts Bachelor of Science Certificate
Willis, Staci	Anthropology	Doctor of Philosophy
Wilroy, Elizabeth Johnson	Pharmacy Technician	Master of Arts Bachelor of Science
Wilson, Brigid Anne	Vast/Occupational Life Skills	Doctor of Philosophy
Wilson-Everett, Mercedes Lynn	English Language Skills(CE)	Master of Education Bachelor of Science
Winters, Saran Savage	Education	Master of Arts Bachelor of Arts
Witt, Woodrow W.	Music	Doctorate
Woest, June	Art	Master of Fine Arts Bachelor of Science
Wolfe, Steven R.	English	Doctor of Philosophy
Wooten, Theresa	Assoc Degree Nursing	Master of Science Bachelor of Science
Wright, James E	English	Doctor of Philosophy Master of Arts
Yampey-Jorg, Gloria L	Spanish	Master of Arts Bachelor of Arts
Yates, Dock Lucas	Medical Lab Tech	Bachelor of Science Associate of Applied Science
Yip, Karen Blair	Geology	Bachelor of Arts
Yvan Rostand, Songue	Biology	Doctor of Medicine
Zamanian, Ramin David	Geography	Master of Arts Bachelor of Arts
Zambrano, Maria C	Cosmetology	Associate of Applied Science
Zaza, Nicole Anisa	English	Master of Fine Arts Bachelor of Arts

Zerby, John	Electronic Engineering Technology	Associate of Arts Master of Business Admin Master of Science Bachelor of Science
Zewde, Solomon Mulugeta	Computer Science	Master of Business Admin Bachelor of Science
Zhang, Shuo	Biology	Doctor of Philosophy
Zhu, Ying	Mathematics	Master of Science
Ziemba, Kathryn	Intensive English	Master of Arts
Ziemba, Michael J.	Intensive English	Master of Arts Bachelor of Arts
Zinebi, Savannah Estelle	Biology	Doctor of Philosophy Master of Science
Zoch, Stephen P.	Developmental Math	Master of Science Bachelor of Science
Zoorob, Grace Roger	Chemistry	Doctor of Philosophy

A photograph of the Houston Community College building at night, illuminated with a warm, golden light. The building features a series of tall, classical columns and large windows. In the foreground, there is a paved walkway and a large, dense bush of yellow flowers. A person is walking on the path to the right, and another person is visible near the entrance of the building.

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Chancellor

Cesar Maldonado, Ph.D., P.E.