UTB Legacy
Degree Programs
and
Courses
2010 – 2011

THE UNIVERSITY OF TEXAS AT BROWNSVILLE AND TEXAS SOUTHMOST COLLEGE

2010-2011 PROGRAMS OF STUDY

Bachelor Degree Programs – Four Year Programs of Study

Applied Arts and Science
Applied Business Technology
- Business
- Legal Studies
- Workforce Leadership and Training

Applied Engineering Technology and Training
Art
Biology
Business
- Accounting
- Entrepreneurship
- International Business
- Management
- Marketing

Chemistry
Communication
Computer Information Systems Technology
Computer Science
Criminal Justice
- Correctional Administration
- Online Criminology & Criminal Justice
- Police Administration

Engineering Physics
- Bioengineering
- Computer Engineering
- Electrical Engineering
- Mechanical Engineering

Engineering Technology
- Electronics
- Manufacturing
- Mechanical

English
Environmental Sciences
Government
Health Services Technology
History
Health and Human Performance
Health and Human Performance – Exercise Science Mathematics
Multidisciplinary Studies

Music
- Guitar
- Instrumental
- Keyboard
- Vocal

Nursing
Physics
Physics - Biophysics Specialization
Psychology
Public Service
Sociology
Spanish
Spanish Translation and Interpreting
Workforce Leadership and Training

Bachelor Programs – Teacher Certification

Elementary Education – Grades Early Childhood through 6th Grade
Early Childhood through 6th Grade Bilingual Generalist
Early Childhood through 6th Grade English as a Second Language Generalist
Early Childhood through 6th Grade Generalist/EC-12th Special Education

Middle School – Grades 4th through 8th Grade

English-Language Arts Grades 4th through 8th
Mathematics Grades 4th through 8th
Science Grades 4th through 8th

High School – Grades 8th through 12th
English-Language Arts Grades 8th – 12th
History Grades 8th – 12th
History/Social Studies Grades 8 - 12
Mathematics Grades 8th – 12th
Science Grades 8th – 12th
- Biology
- Chemistry
- Environmental Sciences
- Physics

Early Childhood through 12th Grade
Art – EC-12th
Computer Information Systems – EC-12th
Health and Human Performance – EC-12th
Health Services Technology – EC-12th
Music – EC-12th
- Guitar
- Instrumental
- Keyboard
- Vocal

Spanish Grades - EC– 12th

Source: Academic Advising Center

MINORS

Arts
Art History
Business
French
Leadership and Personal Development (Military Science)
Spanish
Spanish Translation

INSTITUTIONAL AWARDS

Bilingual Proficiency Cert
Border and Transnational Studies Cert
Forensic Investigation
Historical Building Restoration
Jazz
Mariachi Studies

The University of Texas at Brownsville and Texas Southmost College
General Education Core Curriculum
2010 - 2011

010 - Communication (2 courses - 6 hours required)

English 1301 – Composition I (minimum grade of C)

English 1302 – Composition II (minimum grade of C)

011 - Additional Communication (2 courses - 6 hours required)

Spanish 1311 – Elementary Spanish I
Spanish 1312 – Elementary Spanish II
Spanish 2313 – Basic Spanish for Bilinguals I
Spanish 2315 – Basic Spanish for Bilinguals II
Spanish 2311 – Intermediate Spanish I
Spanish 2312 – Intermediate Spanish II
Spanish 2316 – Career Spanish
Spanish 2317 – Business Spanish
Spanish 2321 – Hispanic Language & Culture I
Spanish 2322 – Hispanic Language & Culture II
French 1311 – Elementary French I
French 1312 – Elementary French II
French 2311 – Intermediate French I
French 2312 – Intermediate French II
German 1311 – Elementary German I
German 1312 – Elementary German II
German 2311 – Intermediate German I
German 2312 – Intermediate German II
Arabic 1311 – Elementary Arabic I
Arabic 1312 – Elementary Arabic II
Chinese 1311 – Beginning Chinese I
Chinese 1312 – Beginning Chinese II
Italian 1311 – Elementary Italian I
Italian 1312 – Elementary Italian II
Japanese 1311 – Elementary Japanese I
Japanese 1312 – Elementary Japanese II
Sign Language 1301 – Beginning American Sign Language I
Sign Language 1302 – Beginning American Sign Language II

020 - Mathematics (1 course – 3 hours required; minimum grade of C)

Math 1314 – College Algebra
Math 1316 – Trigonometry
Math 1324 – Mathematics for Business and Social Sciences I
Math 1325 – Mathematics for Business and Social Sciences II
Math 1332 – Math for Liberal Arts
Math 1342 – Elementary Statistics
Math 1348 – Analytic Geometry
Math 1350 – Fundamentals of Mathematics for Teachers I
Math 1351 – Fundamentals of Mathematics for Teachers II
Math 2305 – Discrete Mathematic
Math 2318 – Linear Algebra
Math 2321 – Differential Equations and Linear Algebra
Math 2412 – Pre-Calculus Mathematics
Math 2413 – Calculus I

030 - Natural Science (2 courses, 2 labs – 8 hours required)

Biology 1306/1106 – General Biology I with lab
Biology 1307/1107 – General Biology II with lab
Biology 1308/1108 – Biological Concepts I with lab
Biology 1309/1109 – Biological Concepts II with lab
Biology 2301/2101 – Human Anatomy and Physiology I with lab
Biology 2302/2102 – Human Anatomy and Physiology II with lab
Chemistry 1305/1105 – Introductory Chemistry I with lab
Chemistry 1307/1107 – Introductory Chemistry II with lab
Chemistry 1311/1111 – General Chemistry I with lab
Chemistry 1312/1112 – General Chemistry II with lab
Environmental Science 1301/1101 – Introduction to Environmental Science I with lab
Environmental Science 1302/1102 – Introduction to Environmental Science II with lab
Geology 1301/1101 – Principles of Earth Sciences with lab
Geology 1303/1103 – Physical Geology with lab
Geology 1304/1104 – Historical Geology with lab
Geology 1347/1147 – Meteorology with lab
Physics 1301/1101 – General Physics I with lab
Physics 1302/1102 – General Physics II with lab
Physics 1305/1105 – Elementary Physics and Acoustics with lab
Physics 1310/1110 – Conceptual Physics with lab
Physics 1311/1111 – Introduction to Astronomy with lab
Physics 1315/1115 – 21st Century Energy Issues: Physical Science I
Physics 1401 – College Physics I
Physics 1402 – College Physics II
Physics 2325/2125 – University Physics I with lab
Physics 2326/2126 – University Physics II with lab

The University of Texas at Brownsville and Texas Southmost College
General Education Core Curriculum
2010 - 2011

040 - Humanities (1 course – 3 hours required)

English 2332 – World Literature to 1660

English 2333 – World Literature since 1660

050 - Visual and Performing Arts (1 course – 3 hours required)

Arts 1301 – Art Appreciation

Arts 1303 – Art History Survey I

Music 1304 – Teaching Music in the Elementary School

Music 1306 – Music Appreciation

Music 1308 – Music Literature and History I

060 - History (2 courses – 6 hours required)

History 1301 – United States to 1877

History 1302 – United States since 1877

070 - Government (2 courses – 6 hours required)

Government 2301 – American and Texas Government

Government 2302 – American Government and Policy

080 - Social and Behavioral Sciences (1 course – 3 hours required)

Anthropology 2351 – Cultural Anthropology

Business 1301 – Introduction to Business

Economics 2301 – Macroeconomics

Geography 1303 – General World Geography

Psychology 2301 – Introduction to Psychology

Sociology 1301 – Introduction to Sociology

Sociology 2319 – The Mexican American Experience

090 - Institutionally Designated Option (2 courses – 4 hours required)

Kinesiology 1164 *or* any one-hour activity course

And one of these:

Speech 1315 – Applied Communication

Speech 1318 – Interpersonal Communication

48 Total Credit Hours

Bachelor of Applied Arts and Sciences (B.A.A.S.)^

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The Bachelor of Applied Arts and Sciences degree offers students with an Associate of Applied Science Degree an opportunity to achieve a Bachelors's degree. With highly in-demand and customizable specializations, the career opportunities are limitless.

IMPORTANT TO STUDENTS: CHECK WITH AN ACADEMIC ADVISOR FOR SUBJECT AREA SELECTION, COURSE PREREQUISITES OR ADMISSION TO PROGRAMS.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Applied Arts and Sciences must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – AAS DEGREE OR EQUIVALENT – 36 HOURS

Degree Major: _____ Date:_____

Institution: _____

C – DEGREE REQUIREMENTS – 36 HOURS

Subject Areas must be ADVANCED hours (3000 or 4000 level)

1 – Subject Area I – 12-18 hours

2 – Subject Area II – 12-18 hours

D – ELECTIVES – 0-12 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
^ Not a School of Business degree.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

Bachelor of Applied Arts and Sciences
Subject Areas (Upper-Level Courses)

All prerequisites for 3000, 4000 level courses must be met.

***ALLIED HEALTH** - Select 18 Hours from the following courses:
HPRS 3301 Intro. to the Evolving Healthcare System
HPRS 4309 Research Methods in Evidenced-Based Healthcare
HPRS 4302 Continuous Quality Improvement
HPRS 3316 Nutritional Concepts for Health Professionals
HPRS 4312 Applied Pathophysiology
HPRS 3313 Physical and Mental Health throughout the Lifespan
HPRS 4334 Issues and Trends in Health Care
HPRS 3324 Teaching in the Health Sciences

***ALLIED HEALTH- Cancer Information Management**
HITT 3301 Cancer Program Standard & Registry Operations
HITT 3302 Cancer Disease Management
HITT 3304 Cancer Statistics and Epidemiology
HITT 3305 Cancer Disease Staging
HITT 3206 Cancer Disease Coding
HITT 3107 Cancer Information Management Practicum

***ALLIED HEALTH- Polysomnography**
RSPT 4320 Fundamental of Polysomnography
RSPT 4210 Polysomnography Instrumentation I
RSPT 4221 Clinical Polysomnography – Sleep Staging I
RSPT 4330 Polysomnographic Therapeutic Intervention
RSPT 4215 Ploysomnography Instrumentation II
RSPT 4323 Clinical Polysomnography – Sleep Staging II

***APPLIED BUSINESS TECHNOLOGY**
APBT 3309 Workforce Ethics
APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
APBT 3322 Information & Technology in Organizations
APBT 3314 Employment Services
APBT 4380 Leadership Foundations
APBT 4391 Current Issues in Applied Technology

***BUSINESS – Business Management Information System**
BMIS 3301 Web Programming with Java (no prerequisites)
BMIS 3302 Database Information Systems (BMIS 3301)
BMIS 3303 E-Commerce Strategies **±**
BMIS 3351 Information Systems in Organizations **±**
BMIS 4303 Web Systems Development (BMIS 3301, BMIS 3302)
BMIS 4304 Systems Analysis E-Business
(BMIS 3301, BMIS 3302, BMIS 4303)
± Admission to Upper Division

EDUCATION
These courses are to be counted as electives and are only for degree purposes and ***do not count for certification***. Students do not apply for admission into the Teacher Certification Program but must complete general education core to be eligible to enroll into education courses.
ECED 4385 Growth and Development of Young Children
ECED 4389 The Environment and Early Childhood
SPED 3390 Introduction to Exceptional Children
SPED 4320 Legal Roles and Responsibilities of the Special Educator
EDLI 3311 *or* BILS 3310
EDSL 4306 Content Area Method in ESL Classroom
EDSL 4307 Foundations of Bilingual/ESL

*** # BUSINESS - Management ****
MANA 3361 Principles of Management (no prerequisites)
MANA 4352 Business and Society
MANA 3362 Human Resource Management (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management)
MANA 4360 Organizational Theory and Behavior (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management
MANA 4367 Topics in Management (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management)

***CRIMINAL JUSTICE**
CRIJ 3302 Research Methods In Criminal Justice
CRIJ 3315 Legal Aspects of Evidence
CRIJ 3331 Legal Aspects of Corrections
CRIJ 4341 Correctional Casework & Counseling
CRIJ 4312 Principles of Law Enforcement Supervision
CRIJ 4363 Gangs and Gang Behavior

***EDUCATIONAL TECHNOLOGY**
EDTC 3310 Introduction to Educational Technology
EDTC 3320 Instructional Design for the Corporate Trainer
EDTC 3321 Computer/Web-Based Training
EDTC 3323 Designing Instructional Multimedia
EDTC 3332 Application of Instructional Technology
EDTC 3325 Computer Mediated Communication and Collaboration

***LEGAL STUDIES**
ALAW 3307 Civil Litigation Advanced
ALAW 3310 Immigration Law & Procedures
ALAW 3312 Evidence
ALAW 3315 Criminal Law and Procedure-Advanced
ALAW 4301 Legal Research and Writing
ALAW 4310 Appeals and Brief Writing

***TECHNOLOGY CORPORATE TRAINING**
TECT 3301 Foundations of Technology Training
TECT 3302 Psychology of Technology Training
TECT 3303 Training Methods in Industry
TECT 4304 The Trainer and Consultant for Technology Education
TECT 4305 Current Issues in Technology Training
TECT 4306 Technology Training in Multicultural Environments
(Technology Training Certificate awarded for 12 hours training block)

**** ≠ COMPUTER INFORMATION SYSTEMS***
Select from any 3000 or 4000 level Computer Information Systems courses
≠ Courses online Tests proctored.

GOVERNMENT
Select from any 3000 or 4000 level Government courses

HISTORY
Select from any 3000 or 4000 level History courses

PSYCHOLOGY
Select from any 3000 or 4000 level Psychology courses

SOCIOLOGY
Select from any 3000 or 4000 level Sociology courses

SPANISH
Select from any 3000 or 4000 level Spanish courses

TRANSLATION STUDIES IN SPANISH
Select from any 3000 or 4000 level Translation Studies in Spanish courses

NOTE: Other concentrations may be available upon approval by advisor.
*Concentrations are offered on-line.
** ONLY one concentration from School of Business permitted. Student must request admission to upper division from the Office of Degree Completion.
# Courses offered online alternate each semester.

APPLIED BUSINESS TECHNOLOGY

BAAS.APBT
2010 – 2011

Bachelor of Applied Arts and Sciences (B.A.A.S.) ^

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The Bachelor of Applied Technology degree allows students that have completed an Associate of Applied Science (AAS) or equivalent to continue their education by building on that foundation. The BAAS degree prepares people for leadership positions in business, health services, education, corporate training and consulting, technology, vocational, governmental, and other highly marketable fields. The career opportunities are limitless.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Applied Arts and Sciences in Applied Business Technology must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – AAS DEGREE OR EQUIVALENT – 33 HOURS

Degree Major: _____ Date:_____

Institution: _____

C – DEGREE REQUIREMENTS

1 – Professional Development Sequence – 15 hours

APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
APBT 3309 Workforce Ethics
APBT 3322 Information and Technology in Organizations
APBT 4391 Current Issues in Applied Technology

2 – Business * (Management or Accounting) Electives – 24 hours**

a) 12 hours of advanced Business* (Management or Accounting**) electives
b) 12 hours of advanced Non-Business electives (#)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
# Electives must be Non-Business and must be selected with the approval of a College of Applied Technology & General Studies Advisor. Electives must be upper level 3000, 4000 courses.
* Students must have a minimum 2.5 GPA in General Education Core and request admission to upper division from the College of Applied Technology and General Studies.
** Students must have completed an AAS in Accounting Technology.
^ Not a School of Business Degree.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

APPLIED BUSINESS TECHNOLOGY - LEGAL STUDIES

BAAS.APBT.LES
2010 – 2011

Bachelor of Applied Arts and Sciences (B.A.A.S.) ^

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

A degree in legal studies prepares a student for work in many areas of both the legal and business fields. Commonly students with a degree in legal studies work as paralegals and support staff for a law firm, government or corporation. Legal studies is also a pathway to law school. As the law and its implications touch on all aspects of our daily life, a legal studies degree can prepare you for a career of your choice, pairing your legal skills with your specific passion to create exciting opportunities.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Applied Arts and Sciences in Applied Business Technology - Legal Studies must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – AAS DEGREE OR EQUIVALENT – 36 HOURS

Degree Major: _____ Date:_____
Institution: _____

C – PROFESSIONAL DEVELOPMENT SEQUENCE – 15 HOURS

APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
APBT 3309 Workforce Ethics
APBT 3322 Information and Technology in Organizations
APBT 4391 Current Issues in Applied Technology

D – LEGAL STUDIES – 21 HOURS

ALAW 3307 Civil Litigation Advanced
ALAW 3310 Immigration Law and Procedure
ALAW 3312 Evidence
ALAW 3315 Criminal Law & Procedure Advanced
ALAW 4301 Legal Research and Writing
ALAW 4310 Appeals and Brief Writing

Electives - 3 hours (#)
(3 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

\# Electives must be Non-Business and must be selected with the approval of an Applied Business Technology Advisor. Electives must be upper level 3000, 4000 courses.
^ Not a College of Business Degree.

APPLIED BUSINESS TECHNOLOGY – WORKFORCE LEADERSHIP AND TRAINING

BAAS.APBT.WLT
2010 – 2011

Bachelor of Applied Arts and Sciences (B.A.A.S.)^

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The BAT Workforce Leadership and Training prepares individuals for leadership positions in business, public services, governmental, and industrial occupations, as well as other related fields.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Applied Arts and Sciences in Applied Business Technology - Workforce Leadership and Training must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – AAS DEGREE OR EQUIVALENT – 33 HOURS

Degree Major: _____ Date:_____
Institution: _____

C – WORKFORCE LEADERSHIP AND TRAINING – 39 HOURS

1 – Professional Development Sequence – 15 hours

APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
APBT 3309 Workforce Ethics
APBT 3322 Information and Technology in Organizations
APBT 4391 Current Issues in Applied Technology

2 –Workforce Leadership and Training – 24 hours

MANA 3361 Principles of Management
MANA 3362 Human Resource Management*
MANA 4366 Small Business Management*
MARK 3371 Principles of Marketing
TECT 3301 Foundations of Technology Training**
TECT 3302 Psychology of Technology Training **
TECT 3303 Training Methods in Industry **
TECT 4304 The Trainer and Consultant for Technology Education **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

* Student must have a minimum 2.5 GPA in General Education Core and request admission to upper division from the College of Applied Technology and General Studies.
** Technology Training Certificate awarded for 12 hours training block.
† Grade of "C" or better is required for graduation.
^ Not a School of Business Degree.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

APPLIED ENGINEERING TECHNOLOGY AND TRAINING

Bachelor of Applied Technology (B.A.T.)

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The BAT Applied Engineering Technology and Training prepares individuals for leadership positions in engineering technology, corporate training and consulting and other highly marketable fields.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Applied Engineering Technology and Training must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

030 – Natural Science
CHEM 1311/1111 General Chemistry I/Lab I
4 hrs of any other science

A – GENERAL EDUCATION CORE – 48 HOURS

B – AAS DEGREE OR EQUIVALENT – 31 HOURS

Degree Major: _____ Date:_____
Institution: _____

C – APPLIED ENGINEERING TECHNOLOGY AND TRAINING – 41 HOURS

MATH 1342 Elementary Statistics ***or*** ENGT 2303 Probability and Statistics
ENGTU 2407 Engineering Materials I
ENGTU 2410 Introduction to Manufacturing Process
MFET 3311 International Quality Assurance Systems
MFET 3320 Product and Process Design
MFET 3325 Manufacturing Process Planning
MFET 3331 Computer Aided Manufacturing
MFET 3332 Robots in Manufacturing
ENGT 3320 Engineering Economics
MFET 4321 Designed Experimentation
TECT 3301 Foundations of Technology Training
TECT 3302 Technology Training Methods and Strategies
TECT 3303 Training Methods in Industry

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 30

† Grade of "C" or better is required for graduation.
The General Education Core courses listed are those recommended for this major.
*AS/ASS and a Technical Field approval by department.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

Art

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

A Bachelor of Arts in Art will provide students with an opportunity to express themselves using a variety of creative disciplines and methods within the visual arts and prepare them for such fields as Museum Studies, Teaching, Studio Artist, Graphic Design, Art Therapy, Fashion and Marketing.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in Art must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

050 – Visual and Performing Arts

ARTS 1303 Art History Survey I

B – MAJOR REQUIREMENTS – 72 HOURS

1 – Core Courses for the Major – 18 hours

ARTS 1304 Art History Survey II
ARTS 1311 Two Dimensional Design
ARTS 1312 Three Dimensional Design
ARTS 1316 Drawing I
ARTS 1317 Drawing II
ARTS 4393 Senior Exhibit

2 - Choose 9 hours from the following:

ARTS 2313 Computer Imaging I
ARTS 2316 Painting I
ARTS 2333 Printmaking I
ARTS 2356 Photography I
ARTS 2326 Sculpture I
ARTS 2346 Ceramics I

3 - Choose 9 hours from the following:

ARTS 2314 Computer Imaging II
ARTS 2317 Painting II
ARTS 2334 Printmaking II
ARTS 2357 Photography II
ARTS 2327 Sculpture II
ARTS 2347 Ceramics II

4 - Choose 6 - 12 hours from the following:

ARTS 3303 Italian Renaissance 1400-1650
ARTS 3338 Fundamentals of Creative and Critical Thinking in Art
ARTS 3340 History of Women in Art
ARTS 3352 Contemporary Art History
ARTS 3382 19th Century European Art
ARTS 4353 American Art History
ARTS 4354 Latin American Art and Architecture
ARTS 4355 Span Medieval, Renaissance & Baroque
ARTS 4387 Far East Art History
ARTS 4390 Topics in Art History

5 - Choose 24 - 30 hours from the following:

ARTS 3314 Individual Problems^
ARTS 3321 Advanced Painting ^
ARTS 3323 Advanced Drawing^
ARTS 3326 Advanced Sculpture^
ARTS 3371 Advanced Ceramics^
ARTS 4331 Advanced Computer Imaging^
ARTS 4334 Advanced Printmaking^
ARTS 4359 Advanced Photography^
ARTS 4391 Studio Art General ^
ARTS 4337 Internship in Art Studio^

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

^ May be repeated four times for credit

BIOLOGY

BS.BIOL
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Stepping stone towards a Masters degree or Ph.D. in discipline. Research or any job requiring a bachelor's degree including teaching (alternative certification) forest service, ecology, industrial etc. wildlife service and many more. Base for pre-med fields such as medical doctor, dentistry, physical therapist. Can be combined with other fields such as English to become a nature writer.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Biology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
CHEM 1311/1111 General Chemistry I /Lab I
CHEM 1312/1112 General Chemistry II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 55 HOURS

1 – Core Courses for the Major – 28 hours

BIOL 1306/1106 General Biology I/Lab I
BIOL 1307/1107 General Biology II/Lab II
BIOL 2343/2143 General Biology III/Lab III
BIOL 3303/3103 Genetics/Lab
BIOL 3309/3109 Ecology/Lab
BIOL 3312/3112 Cell and Molecular Biology/Laboratory
BIOL 4100 Biology Seminar
BIOL 4301 Evolution

RESTRICTED BIOLOGY ELECTIVES – 27 HOURS

Must include a minimum of 15 hours of Biology courses and may include a maximum of 12 hours of upper level courses (3000 and 4000 level courses) offered by other departments within the College of Science, Math and Technology
A total of 20 hours must be advanced.

2 – Support Courses – 17 hours

CHEM 2323/2123 Organic Chemistry I/Laboratory I
CHEM 2325/2125 Organic Chemistry II/Laboratory II
MATH 2413 Calculus I (†)*
PHYS 1301/1101 General Physics I/Lab I
Choose 4 credits from the following courses:
- PHYS 1302/1102 General Physics II/Lab II
- GEOL 1303/1103 Physical Geology/Lab
- GEOL 1304/1104 Historical Geology/Lab
- ENVR 1301/1101 Introduction to Environmental Science I / Lab I
- GEOL/GEOG 4440 Geographic Information Systems

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch for support courses.

ACCOUNTING

Bachelor of Business Administration

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF BUSINESS

Accounting encompasses responsibilities such as auditing both individuals and organizations for compliance with GAAP principles and accurately representing their financial status on financial statements. They may also provide taxation advice to public companies and inclusively managerial services. Some career opportunities open to individuals in accounting include accountants, controllers, auditors, chief financial officers, and budget analysts.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Business Administration in Accounting must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

080 – Social and Behavioral Sciences (†)
ECON 2301 Macroeconomics

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Business Administration Lower Division Core – 18 hours

ACCT 2301 Principles of Accounting I (†)
ACCT 2302 Principles of Accounting II (†)
BMISU 1310 Data Management Tools (†)
BUSI 1301 Introduction to Business (†)
BUSIU 2341 Statistics (†)
ECON 2302 Microeconomics (†)

2 – Business Administration Upper Division Core – 30 hours

BLAW 3337 Business Law I
BUSI 3343 Decision Analysis **
ENGL 3322 Business Communication
MANA 3361 Principles of Management
MARK 3371 Principles of Marketing
ACCT 3351 Information Systems in Organizations **
FINA 3380 Managerial Finance **
ACCT 4350 Ethics for Accountants**
MANA 3363 Operations Management **
*BUSI 4369 Business Policy **

3 – Accounting Major – 24 hours

ACCT 3321 Intermediate Accounting I (†) **
ACCT 3322 Intermediate Accounting II (†) **
ACCT 3323 Federal Income Tax (†) **
ACCT 3324 Cost Management (†)**
ACCT 4321 Advanced Accounting **
ACCT 4324 Auditing (†) **
ACCT 4331 Accounting Report Writing **

Select 3 hours from the following list:

ACCT 3325 Governmental and Not-For-Profit Accounting **
ACCT 4323 Contemporary Accounting Theory **
ACCT 4327 Advanced Managerial Accounting **
ACCT 4328 Seminar in Auditing **
ACCT 4329 Corporation and Partnership Tax **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
** Student must obtain approval for admission to Upper Division (2.5 GPA and AABA or 6 hrs. from completion.)
* Need Departmental approval.
For graduation, a student must have a 2.5 cumulative GPA, a 2.5 GPA in the major, and a 2.5 GPA in the upper division core.

ENTREPRENEURSHIP

Bachelor of Business Administration

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF BUSINESS

It is the undertaking of the organization, operations, and implicated risks of creating a new business venture with the goal of reaping high profits. An entrepreneur has many options to choose from as a career from starting a new business, buying an existing business, becoming a service or consulting firm or even buying a franchise.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Business Administration in Entrepreneurship must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

080 – Social and Behavioral Sciences (†)
ECON 2301 Macroeconomics

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Business Administration Lower Division Core – 18 hours

ACCT 2301 Principles of Accounting I (†)
ACCT 2302 Principles of Accounting II (†)
BMISU 1310 Data Management Tools (†)
BUSI 1301 Introduction to Business (†)
BUSIU 2341 Statistics (†)
ECON 2302 Microeconomics (†)

2 – Business Administration Upper Division Core – 30 hours

BLAW 3337 Business Law I
BUSI 3343 Decision Analysis **
ENGL 3322 Business Communication
MANA 3361 Principles of Management
MARK 3371 Principles of Marketing
BMIS 3351 Information Systems in Organizations
FINA 3380 Managerial Finance **
MANA 4352 Business and Society
MANA 3363 Operations Management **
*BUSI 4369 Business Policy **

3 – Entrepreneurship Major – 24 hours

ACCT 3324 Cost Management **
BMIS 3303 E-Commerce Strategies **
ENTR 3340 New Venture Creation and Innovation
ENTR 4360 Entrepreneurial Finance **
INTL 4371 International Marketing **
MANA 4366 Small Business Management **
MARK 3372 Consumer Behavior **
MARK 4378 Marketing Research **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
** Student must obtain approval for admission to Upper Division (2.5 GPA and AABA or 6 hrs. from completion.)
* Need Departmental approval.
For graduation, a student must have a 2.5 cumulative GPA, a 2.5 GPA in the major, and a 2.5 GPA in the upper division core.

INTERNATIONAL BUSINESS

BBA.INTL
2010 – 2011

Bachelor of Business Administration

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF BUSINESS

It is conducting business on a global scale and these individuals must be knowledgeable in the basic business activities of finance, business law, accounting, management, and marketing and at the same time understand how factors such as politics, economics, and cultural differences affect these. Careers include international sales managers, logistics analysts, import/export agents, supply chain managers, foreign trade specialists and international economists.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Business Administration in International Business must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

080 – Social and Behavioral Sciences (†)
ECON 2301 Macroeconomics

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Business Administration Lower Division Core – 18 hours

ACCT 2301 Principles of Accounting I (†)
ACCT 2302 Principles of Accounting II (†)
BMISU 1310 Data Management Tools (†)
BUSI 1301 Introduction to Business (†)
BUSIU 2341 Statistics (†)
ECON 2302 Microeconomics (†)

2 – Business Administration Upper Division Core – 30 hours

BLAW 3337 Business Law I
BUSI 3343 Decision Analysis **
ENGL 3322 Business Communication
MANA 3361 Principles of Management
MARK 3371 Principles of Marketing
BMIS 3351 Information Systems in Organizations
FINA 3380 Managerial Finance **
MANA 4352 Business and Society
MANA 3363 Operations Management **
*BUSI 4369 Business Policy **

3 – International Business Major – 24 hours

BMIS 3303 E-Commerce Strategies **
INTL 3331 International Law **
INTL 3392 Supply Chain Management **
INTL 4361 International Management **
INTL 4371 International Marketing **
INTL 4381 International Finance & Economics **
INTL 4393 Topics in International Business **
MARK 3372 Consumer Behavior **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
** Student must obtain approval for admission to Upper Division (2.5 GPA and AABA or 6 hrs. from completion.)
* Need Departmental approval.
For graduation, a student must have a 2.5 cumulative GPA, a 2.5 GPA in the major, and a 2.5 GPA in the upper division core.

MANAGEMENT

BBA.MANA
2010 – 2011

Bachelor of Business Administration

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF BUSINESS

The responsibility of management is to be efficient and effective at administering an organization's human, financial, material, and intellectual resources so that they can achieve business goals. Among the career options that are available to individuals with this major are general managers, operations managers, human resource managers, and project managers.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Business Administration in Management must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

080 – Social and Behavioral Sciences (†)
ECON 2301 Macroeconomics

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Business Administration Lower Division Core – 18 hours

ACCT 2301 Principles of Accounting I (†)
ACCT 2302 Principles of Accounting II (†)
BMISU 1310 Data Management Tools (†)
BUSI 1301 Introduction to Business (†)
BUSIU 2341 Statistics (†)
ECON 2302 Microeconomics (†)

2 – Business Administration Upper Division Core – 30 hours

BLAW 3337 Business Law I
BUSI 3343 Decision Analysis **
ENGL 3322 Business Communication
MANA 3361 Principles of Management
MARK 3371 Principles of Marketing
BMIS 3351 Information Systems in Organizations
FINA 3380 Managerial Finance **
MANA 4352 Business and Society
MANA 3363 Operations Management **
*BUSI 4369 Business Policy

3 – Management Major – 24 hours

BMIS 3303 E-Commerce Strategies **
INTL 3392 Supply Chain Management **
INTL 4361 International Management **
MANA 3362 Human Resource Management **
MANA 4360 Organizational Theory and Behavior **
MANA 4366 Small Business Management **
ACCT 3324 Cost Management **
MANA 4367 Topics in Management **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
** Student must obtain approval for admission to Upper Division (2.5 GPA and AABA or 6 hrs. from completion.)
* Need Departmental approval.
For graduation, a student must have a 2.5 cumulative GPA, a 2.5 GPA in the major, and a 2.5 GPA in the upper division core.

MARKETING

BBA.MARK
2010 - 2011

Bachelor of Business Administration

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF BUSINESS

Marketers conduct marketing research where they study cultural, social, economic, and environmental factors that can have an effect on product or service development. If you are sociable, creative, and enjoy working with teams you can expect to find job positions as marketing coordinators, retail store managers, marketing directors, advertising managers, and public relations managers with this career.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Business Administration in Marketing must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra

080 – Social and Behavioral Sciences (†)
ECON 2301 Macroeconomics

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Business Administration Lower Division Core – 18 hours

ACCT 2301 Principles of Accounting I (†)
ACCT 2302 Principles of Accounting II (†)
BMISU 1310 Data Management Tools (†)
BUSI 1301 Introduction to Business (†)
BUSIU 2341 Statistics (†)
ECON 2302 Microeconomics (†)

2 – Business Administration Upper Division Core – 30 hours

BLAW 3337 Business Law I
BUSI 3343 Decision Analysis **
ENGL 3322 Business Communication
MANA 3361 Principles of Management
MARK 3371 Principles of Marketing
BMIS 3351 Information Systems in Organizations
FINA 3380 Managerial Finance **
MANA 3363 Operations Management **
MANA 4352 Business and Society
*BUSI 4369 Business Policy **

3 – Marketing Major – 24 hours

BMIS 3303 E-Commerce Strategies **
INTL 4371 International Marketing **
MARK 3372 Consumer Behavior **
MARK 4371 Sales Management and Personal Selling **
MARK 4372 Promotion Strategy **
MARK 4376 Marketing Strategies **
MARK 4377 Topics in Marketing **
MARK 4378 Marketing Research **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* Need Departmental approval.
** Student must obtain approval for admission to Upper Division (2.5 GPA and AABA or 6 hrs. from completion.)
For graduation, a student must have a 2.5 cumulative GPA, a 2.5 GPA in the major, and a 2.5 GPA in the upper division core.

Source: Academic Advising Center
academicadvising@utb.edu

Program Rev. Date: 5-12-10
Catalog Date: 5-12-10

CHEMISTRY

BS.CHEM
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

The Bachelor of Science in Chemistry is the basis for a number of avenues of employment and research. Careers in medicine and dentistry utilize a chemistry background. One can be employed in a wide range of laboratory research including forensic studies and pathology. Engineering and manufacturing research employ chemists. The pharmaceutical industry is a major employer of chemists. One may choose a research path in which case enrollment in graduate programs is required.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Chemistry must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
CHEM 1311/1111 General Chemistry I /Lab I
CHEM 1312/1112 General Chemistry II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 41 HOURS

1 – Core Courses for the Major – 35 hours

CHEM 2323/2123 Organic Chemistry I /Lab I
CHEM 2325/2125 Organic Chemistry II/Lab II
CHEM 3301 Inorganic Chemistry
CHEM 3303/3103 Biochemistry I/Lab I
CHEM 3305/3105 Analytical Chemistry
CHEM 3310/3110 Physical Chemistry I/Lab I
CHEM 3312/3112 Physical Chemistry II/Lab II
CHEM 4110 Chemistry Seminar
CHEM 4305/4105 Instrumental Methods of Analysis/ Lab
CHEM 4320 Chemistry Problems

2 – Chemistry Electives – 6 hours

(6 hours must be advanced 3000, 4000 level)

C – SUPPORT COURSES – 19 - 20 HOURS

PHYS 1301/1101 General Physics I/Lab I
PHYS 1302/1102 General Physics II/ Lab II
MATH 2413 Calculus I*
MATH 2414 Calculus II
MATH 3349 Differential Equations ***or*** MATH 2415 Calculus III
COSC 1301 Microcomputer Applications

D - ELECTIVES – 11 - 12 HOURS

(11 hours if MATH 2415 or 12 hrs if MATH 3349 in Support Courses)
(3 hours must be Advanced if MATH 2415 in Support Courses)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch for support courses.

COMMUNICATION

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The Bachelor of Arts in Communication Studies prepares a student to work in fields as varied as print journalism, broadcast jornalism, public relations, advertising, health sector, and agencies and organizations requiring Press Secretaries and Information Officers in private and public sectors. Employment opportunities also exist in Training and Development, and administrative roles in information and service industries as well as law enforcement and health care organizations. The Bachelor of Arts in Communication also prepares the students to pursue graduate programs in Communication, Media Management, Law, and Public Administration.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in Communication must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – MAJOR REQUIREMENTS – 42 HOURS

1 – Core Courses for the Major – 24 hours

COMM 1307 Introduction to Mass Media
COMM 3315 Methods and Strategies of Social Influence
COMM 3316 Intercultural Communication
COMM 3323 Theories of Communication
COMM 3335 Mass Communication and Society
COMM 4311 Public Relations
COMM 4345 Communication and Conflict Management
COMM 4350 Research in Communication

2 - Choose ***ONE*** of the following Tracks:

COMMUNICATION STUDIES TRACK – 18 hours

SPCH 2333 Group Communications and Discussion
COMM 2316 Interviewing Principles
COMM 3310 Communication in Context **or** COMM 3311 Gender and Communication
COMM 3330 Leadership Communication
COMM 4312 Applied Organizational Communication
COMM 4332 Principles of Instruction and Training

Or

MASS COMMUNICATION TRACK – 18 hours

COMM 2311 Writing for the Mass Media
COMMU 2333 Film and T.V. Production
COMM 3325 Visual Communication
COMM 3360 Feature Writing
COMM 4340 Advertising
COMM 4344 Communication Campaign Development

C – ELECTIVES – 30 HOURS

(3 hours must be advance 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

COMPUTER INFORMATION SYSTEMS TECHNOLOGY

Bachelor of Applied Technology (B.A.T.)

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

Graduates from the Computer Information System Technology degree apply information Technology (IT) to sustain the performance of a broad range of occupations and daily life situations by operating, configuring and maintaining software and hardware in computing systems. Areas of application include date center operation, networking and data communications setup, database management systems maintenance, web support, and digital media assistance. Employment opportunities are extensive in the field of IT and include positions such as analyst, specialist, or operation in data centers, networking, database management systems, and IT support services.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Computer Information Systems Technology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 1314 College Algebra or any higher level Math course

090 – Institutional Requirements

SPCH 1315 Applied Communication is strongly recommended

A – GENERAL EDUCATION CORE – 48 HOURS

B – AAS DEGREE OR EQUIVALENT – 36 HOURS

Degree major approved by CIS Department with at least 30 SCH in computer related courses: _____

Degree Major: _____ Date:_____

Institution: _____

C – COMPUTER INFORMATION SYSTEMS CORE[1] – 9 HOURS

COSC 1336 Programming Fundamentals I
COSC 1337 Programming Fundamentals II
CIST 3310 Foundations of Information Technology

D – CIST ELECTIVES – 18 HOURS

(18 hours must be advanced 3000, 4000 level)

E – ELECTIVES – 9 HOURS

(9 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 30

† Grade of "C" or better is required for graduation.

[1] CIST Track will be structured so that 6 credit hours are offered on-line per semester

[2] Recommended Electives: CIST, TECT, APBT, AETT.

Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

COMPUTER SCIENCE

BS.COSC
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Computer Scientists possess strong foundations in computer architecture and algorithms allowing them to apply innovative computing technology to automate processes and to solve problems effectively and efficiently. Areas of application include the design, implementation, research, and study of computing fields such as computer information systems, networking, databases, computer security, web development, software development, and computer graphics. Employment opportunities include positions in software development and research, database systems, networking and data communications. Graduates of this program are prepared for graduate studies in computer science at master and doctorate levels. The Bachelor of Science in Computer Science is accredited by the Computing Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Computer Science must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Science
PHYS 2325/2125 University Physics I / Lab I
PHYS 2326/2126 University Physics II / Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 66 HOURS

1 – Computer Science Foundation – 26 hours

COSC 1336 Programming Fundamentals I (†)
COSC 1337 Programming Fundamentals II (†)
COSC 2312 Digital Logic (†)
COSC 2316 Web Programming and Design
MATH 2318 Linear Algebra
COSC 2310 Discrete Structures (†)
MATH 3381 Statistics
MATH 2413 Calculus I*
MATH 2414 Calculus II

2 – Computer Science Core – 28 hours

COSC 2336 Programming Fundamentals III
COSC 2325 Machine Language and Computer Organization
COSC 3325 Computer Architecture
COSC 4313 Computer Networks
COSC 3345 Algorithm Analysis
COSC 3355 Principles of Programming Languages
COSC 4310 Operating Systems
COSC 4346 Software Engineering
COSC 4190 Senior Project
COSC 4342 Database Management Systems

3 – Computer Science Electives – 12 hours
(12 hours must be advanced 3000, 4000 level)

C – ELECTIVES – 10 – 12 HOURS

1 – Mathematics Electives – 3 – 4 hours
MATH 2415 Calculus III ***or*** MATH 3349 Differential Equations

2 – Electives – 7 – 8 hours
a) 3-4 hours from MATH 1314, 2412 or any course listed in "Computer Science" or Mathematics" electives.
b) 4 hours from PHYS 3400, CHEM 1311/1111 or CHEM 1312/1112 or BIOL 1306/1106, or BIOL 1307/1107

TOTAL CREDIT HOURS FOR GRADUATION – 124 - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413 – 3 sch for general education and 1sch towards major requirements.

CORRECTIONAL ADMINISTRATION

BSCJ.CA
2010 – 2011

Bachelor of Science in Criminal Justice

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The BSCJ – Correctional Administration prepares graduates for careers in the correctional system. Examples of careers are correctional or probation officer (adult or juvenile), child and adult protective services and detention center officer.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Criminal Justice-Correctional Administration must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences

PSYC 2301 Introduction to Psychology ***or*** SOCI 1301 Introduction to Sociology

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 54 HOURS

1 – Core Courses for the Major – 27 hours

CRIJ 1301 Introduction to Criminal Justice
CRIJ 1306 The Courts and Criminal Procedures
CRIJ 1310 Fundamentals of Criminal Law
CRIJ 2313 Correctional System and Practices
CRIJ 2328 Police Systems and Practices
CRIJ 3302 Research Methods in Criminal Justice
CRIJ 3303 Nature of Crime
CRIJ 3362 Statistics in Criminal Justice
CRIJ 4370 Senior Seminar – Policy Issues

2 – Correctional Administration Concentration – 18 hours

CRIJ 1313 Juvenile Justice System
CRIJ 3331 Legal Aspects of Corrections
CRIJ 4341 Correctional Casework & Counseling
CRIJ 4343 Seminar of Issues in Corrections
CRIJ 4320 Criminal Justice Organization and Management
CRIJ 4301 Practicum Field Experience

3 – Criminal Justice Electives[1] – 9 hours

(6 hours must be advanced 3000, 4000 level)

C – INTERDISCIPLINARY SOCIAL SCIENCE SUPPORT COURSES[2] - 12 HOURS

a) 6 hours of advanced GOVT courses at 3000, 4000 level
b) 6 hours of advanced PSYC or SOCI courses at 3000, 4000 level

D – ELECTIVES[2] – 6 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

[1] CRIJ 4362 Special Topics in Criminal Justice may be taken twice for credit as long as courses have different subject matter.

[2] Majors must complete two advanced Government courses. Majors must complete either two advanced courses in Sociology or two advanced courses in Psychology. If student chooses to take adcnaced level courses in Psychology, then the student will need to take PSYC 2301 Introduction to Psychology for the General Education Social and Behavioral Sciences requirement. Or, of the student chooses to take advanced level courses in Sociology, then the student will need to take SOCI 1301 Introduction to Sociology for the General Education Social and Behavioral Sciences requirement.

[3] Computer Science courses recommended.

ONLINE CRIMINOLOGY AND CRIMINAL JUSTICE

BSCJ.OL
2010 - 2011

Bachelor of Science in Criminal Justice

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The online completion degree in Criminology/Criminal Justice prepares graduates for careers in criminal justice agencies in the areas of law enforcement, corrections and courts.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Criminal Justice-Online Criminology and Criminal Justice must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences

PSYC 2301 Introduction to Psychology

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 72 HOURS

1 – Core Courses for the Major – 60 hours

CRCJ 2334 Introduction to Criminal Justice ***or*** CRIJ 1301 Introduction to Criminal Justice
CCJO 3312 Criminal Justice Administration
CCJO 4316 Theories of Criminal Behavior
CRCJ 3350 Research Methods
CRIJ 3315 Legal Aspects of Evidence
CRIJ 3331 Legal Aspects of Corrections
CRCJ 4301 American Judicial Systems
CCJO 3332 Juvenile Delinquency and Justice
CRCJ 4380 Comparative Criminal Justice Systems
CRIJ 4370 Senior Seminar – Policy Issues
CRCJ 4333 Institutional Corrections
CRCJ 4315 Criminal Careers and Behavior Systems
CCJO 4354 Ethics in Criminal Justice
CCJO 4356 Probation and Parole
CRIJ 4312 Principles of Law Enforcement Supervision
CRIJ 4341 Correctional Casework & Counseling
CRIJ 4313 Seminar of Issues in Law Enforcement
CCJO 4364 Police and the Community
CRCJ 3380 Ethnic and Gender Issues in Criminal Justice
PSYC 4305 Behavior Management and Modification

2 – Criminal Justice Electives – 6 hours

Student must choose two (2) courses from approved list.

3 – Electives[1] – 6 hours

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

Courses found online from:
CRCJ = UT-Arlington
CCJO = UT Permian Basin
CRIJ = UTB/TSC

[1] Computer Science courses recommended.

POLICE ADMINISTRATION

BSCJ.PA
2010 – 2011

Bachelor of Science in Criminal Justice

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The BSCJ-Police Administration prepares graduates for careers in law enforcement. Examples of law enforcement careers are local police and sheriff departments and federal agencies.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Criminal Justice-Police Administration must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences[2]

PSYC 2301 Introduction to Psychology ***or*** SOCI 1301 Introduction to Sociology

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 54 HOURS

1 – Core Courses for the Major – 27 hours

CRIJ 1301 Introduction to Criminal Justice
CRIJ 1306 The Courts and Criminal Procedures
CRIJ 1310 Fundamentals of Criminal Law
CRIJ 2313 Correctional Systems and Practices
CRIJ 2328 Police Systems and Practices
CRIJ 3302 Research Methods in Criminal Justice
CRIJ 3303 Nature of Crime
CRIJ 3362 Statistics in Criminal Justice
CRIJ 4370 Senior Seminar – Policy Issues

2 – Police Administration Concentration – 18 hours

CRIJ 1313 Juvenile Justice System
CRIJ 3315 Legal Aspects of Evidence
CRIJ 4312 Principles of Law Enforcement Supervision
CRIJ 4313 Seminar of Issues in LEN
CRIJ 4320 Criminal Justice Organization and Management
CRIJ 4301 Practicum Field Experience

3 – Criminal Justice Electives[1] – 9 hours

(6 hours must be advanced 3000, 4000 level)

C – INTERDISCIPLINARY SOCIAL SCIENCE SUPPORT COURSES[2] - 12 HOURS

a) 6 hours of advanced GOVT courses at 3000, 4000 level
b) 6 hours of advanced PSYC or SOCI courses at 3000, 4000 level

D – ELECTIVES[2] – 6 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

[1] CRIJ 4362 Special Topics in Criminal Justice may be taken twice for credit as long as courses have different subject matter.

[2] Majors must complete two advanced Government courses. Majors must complete either two advanced courses in Sociology or two advanced courses in Psychology. If student chooses to take advanced level courses in Psychology, then the student will need to take PSYC 2301 Introduction to Psychology for the General Education Social and Behavioral Sciences requirement. Or, of the student chooses to take advanced level courses in Sociology, then the student will need to take SOCI 1301 Introduction to Sociology for the General Education Social and Behavioral Sciences requirement.

[3] Computer Science courses recommended.

ENGINEERING PHYSICS

2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

With this degree you will be an engineer able to work in a variety of positions. You will also be eligible for graduate school in many disciplines including engineering, science, business, and medicine. Graduates of this program are qualified to be high school math or science teachers with a short alternative certification program for which scholarships are available. The Bachelor of Science in Engineering Physics is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone: (410) 347-7700.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Engineering Physics must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
PHYS 2325/2125 University Physics I / Lab I
PHYS 2326/2126 University Physics II / Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 86 – 88 hours

1 – Support Courses – 16 hours
MATH 2413 Calculus I (†) *
MATH 2414 Calculus II
MATH 2321 Differential Equations & Linear Algebra
MATH 2415 Calculus III
CHEM 1311/1111 General Chemistry I/Lab I

2 – Physics Core Courses – 11 hours
PHYS 3400 Modern Physics
PHYS 3490 Mathematical Methods I
PHYS 4390 Comp. Methods for Engineers and Phys.

3 – Engineering Core Courses – 29 hours
ENGR 1101 Introduction to Engineering
ENGR 2301 Engineering Mechanics I- Statics
ENGR 2302 Engineering Mechanics II-Dynamics
ENGR 2332 Mechanics of Materials
ENGR 3320/3120 Linear Circuits/Lab
ENGR 3421 Electronics I
ENGR 3303 Thermodynamics
ENGR 4242 Senior Design Project I
ENGR 4243 Senior Design Project II
ENGR 4441 Control Systems

4 – Computer Science Core Courses – 3 hours
COSC 1336 Programming Fundamentals I

5 – Engineering Physics Track – 27 - 29 hours
Upper Division Engineering Exam **

TOTAL CREDIT HOURS FOR GRADUATION - 134 - 136
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirement.
** Engineering department will submit exam completion information to the office of the Registrar.

ENGINEERING PHYSICS

2010 – 2011

BIOENGINEERING TRACK – 29 HOURS (BS.ENGR.PHYS.BIOE)

BIOL 1306/1106 General Biology I/Lab I
BIOL 1307/1107 General Biology II/Lab II
CHEM 1312/1112 General Chemistry II/Lab II
CHEM 2323 Organic Chemistry I
PHYS 3315 Physics of Biological Systems
PHYS 4315 Analysis of Biomolecules by Physical Methods
BENG 4320/4120 Molecular Bioengineering/Lab
ENGR 4406 Mechanics III

COMPUTER TRACK – 27 HOURS (BS.ENGR.PHYS.COMPE)

MATH 3381 Statistics
COSC 1337 Programming Fundamentals II
COSC 2310 Discrete Structures
COSC 2312 Digital Logic
COSC 2336 Programming Fundamentals III
COSC 2325 Machine Language and Computer Organization
COSC 3325 Computer Architecture
COSC 4349 Advanced Computer Architecture
PHYS 4330 Electromagnetic Theory **or** PHYS 4320 Quantum Mechanics **or** PHYS 3310 Classical Mechanics

ELECTRICAL TRACK – 27 HOURS (BS.ENGR.PHYS.ELET)

ENGR 4322 Electronics II
ENGR 4423 High Frequency Engineering
ENGR 4424 ElectricPower andeng Machinery
ENGR 4425 Analog and Digital Communications
Engineering Elective I
Engineering Elective II
PHYS 4330 Electromagnetic Theory
ENGR 4326 Power Electronics

MECHANICAL TRACK – 27 HOURS (BS.ENGR.PHYS.MECH)

ENGR 3405 Engineering Materials
ENGR 4406 Mechanics III
ENGR 4309 Mechanical Subsystems Design
ENGR 1304 Engineering Graphics I
ENGR 4310 Heat and Mass Transfer
PHYS 3310 Classical Mechanics **or** PHYS 4330 Electromagnetic Theory
Engineering Elective I
ENGR 4407 Manufacturing Process Technologies

ENGINEERING TECHNOLOGY – ELECTRONICS

BS.ELET
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Graduates of this program hold or have held positions as electronic engineering technologists, electrical system engineers, engineering department heads, and department managers. Graduates of this program are qualified to be high school math or science teachers with a short alternative certification program for which scholarships are available.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Electronics Engineering Technology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

030 – Natural Science

PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 79 HOURS

1 – Core Courses for the Major – 54 hours

ENGR 1101 Introduction to Engineering
ELETU 2402 Linear Circuits I
ELETU 2201 Fabrication & Instrumentation Lab
ENGT 1407 Digital Fundamentals
ENGT 2130 Engineering Communications
MATH 3381 Statistics
ENGT 3320 Engineering Economics
ENGT 4241 Senior Design Project I
ENGT 4242 Senior Design Project II
ELETU 2410 Electronics I: Semiconductor Devices
ELET 3410 Electronics II
ELET 3424 Power Electronics
ENGR 4441 Control Systems
ELET 3440 Electric Power and Machinery
ELET 3411 Electromagnetics and High Frequency Systems
ELET 3441 Digital Systems
ELET 3431 Introduction to Telecommunications

2 – Support Courses – 16 hours

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 2321 Differential Equations & Linear Algebra
CHEM 1311/1111 General Chemistry I/Lab I

3 – Computer Science Core Courses – 3 hours

COSC 1336 Programming Fundamentals I

4 - Electives – 6 hours

Departmental approval (6 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 127
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirements.

ENGINEERING TECHNOLOGY – MANUFACTURING

BS.MFET
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

The education associated with attainment of this degree will provide you with the skills to run a manufacturing department of a company, to manage a manufacturing production line and solve many problems that arise in a manufacturing facility. Graduates of this program are qualified to be high school math or science teachers with a short alternative certification program for which scholarships are available.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Manufacturing Engineering Technology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

030 – Natural Sciences

PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 79 HOURS

1 – Core Courses for the Major – 53 hours

ENGR 1101 Introduction to Engineering
ENGT 1409 Introduction to Electrical Technology
ENGT 2130 Engineering Communications
ENGTU 2407 Engineering Materials I
ENGT 3320 Engineering Economics
ENGT 4241 Senior Design Project I
ENGT 4242 Senior Design Project II
ENGR 1304 Engineering Graphics I
ENGR 2301 Engineering Mechanics I - Statics
ENGR 2302 Engineering Mechanics II - Dynamics
ENGR 3304 Mechanics of Materials
ELET 3314 Instrumentation and Control
MEET 3311 International Quality Assurance Systems
MEET 3430 Transport Technologies I
MEET 3431 Transport Technologies II
ENGTU 2410 Intro to Manufacturing Processes
MFET 3325 Manufacturing Process Planning
MFET 3331 Computer Aided Manufacturing

2 – Support Courses – 20 hours

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 2321 Differential Equations & Linear Algebra
CHEM 1311/1111 General Chemistry I/Lab I
CHEM 1312/1112 General Chemistry II/Lab II

3 – Electives – 6 hours

Departmental approval (6 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 127
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirements.

ENGINEERING TECHNOLOGY – MECHANICAL

BS.MEET
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

This degree will allow you to be an engineer in a manufacturing plant, to be a problem solver in any small technical firm, or to be eligible for many jobs requiring a mechanical engineering technologist or mechanical engineer. Graduates of this program are qualified to be high school math or science teachers with a short alternative certification program for which scholarships are available.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Mechanical Engineering Technology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

030 – Natural Science

PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 80 HOURS

1 – Core Courses for the Major – 61 hours

ENGR 1101 Introduction to Engineering
ENGT 1409 Introduction to Electrical Technology
ENGR 1304 Engineering Graphics I
ENGT 2130 Engineering Communications
ENGT 3320 Engineering Economics
ENGR 2301 Engineering Mechanics I - Statics
ENGR 2302 Engineering Mechanics II - Dynamics
ENGTU 2407 Engineering Materials I
ENGR 3304 Mechanics of Materials
ENGRU 2310 Measurements and Instrumentation
ENGR 3310 Mechatronics I
ENGR 4441 Control Systems
MEET 3430 Transport Technologies I
MEET 3431 Transport Technologies II
ENGTU 2410 Introduction to Manufacturing Processes
MEET 3333 Mechanical Subsystem Design
MFET 3320 Product and Process Design
ENGT 4241 Senior Design Project I
ENGT 4242 Senior Design Project II
ENGR 4450 Computational Mechanics

2 – Support Courses – 16 hours

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 2321 Differential Equations & Linear Algebra
CHEM 1311/1111 General Chemistry I/Lab I

3 – Electives – 3 hours

Departmental approval (3 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 128
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirements.

ENGLISH

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Because the field of English provides students with essential skills necessary to communicate effectively, enrich their lives both materially and intellectually, and function as productive members of society, students who major in English have options for employment in many fields, most notably in education and industry.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in English must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – MAJOR REQUIREMENTS – 39 HOURS

1 – Core Courses for the Major – 18 hours

ENGL 3302 Literary Analysis
ENGL 3312 **or** ENGL 3313 Survey of American Literature
ENGL 3319 Introduction to Descriptive Linguistics
ENGL 4301 Shakespeare
ENGL 4325 Composition Techniques
ENGL 4350 English Studies

2 – English Electives – 21 hours

(21 hrs must be advanced 3000, 4000 level)

C – SUPPORT ARE AND/OR ELECTIVES – 33 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

ENVIRONMENTAL SCIENCES

BS.ENVR
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

CONCENTRATION_____

The Department of Chemistry and Environmental Sciences offers a Bachelor of Science degree in Environmental Sciences. Employment opportunities include government agencies, wild life refuge management, private environmental mitigation firms, legal firms, and industry. Government agencies at all levels, from local to national, employ environmental planners and managers. The environmental science degree is utilized for park and wildlife managers, from national to local levels. One may wish to become continue in research and scholarship in which case graduate studies become a necessary option. With a concentration in Geographic Information Systems one can be employed by any number of agencies which utilize mapping including law enforcement, transportation, public utilities, and commercial entities.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Environmental Sciences must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General **E**ducation core requirements**.** For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
PHYS 1301/1101 General Physics I /Lab I
PHYS 1302/1102 General Physics II/ Lab II

080 – Social and Behavioral Sciences
GEOG 1303 General World Geography

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 40 HOURS

1 – Core Courses for the Major – 24 hours
BIOL 3309/3109 Ecology/Lab
ENVR 1302/1102 Introduction to Environmental Sciences II/Lab II
ENVR 3305/3105 Oceanography/Lab
ENVR 3334 Conservation of Natural Resources
ENVR 4301 Environmental Regulations
ENVR 4325 Environmental Science Internship
ENVR 4399 Research Problems in Environmental Sciences

2 – Restricted Environmental Sciences Elective – 16 hours
Choose from Concentration listed on reverse: BIOLOGY, GEOSCIENCES, CHEMISTRY OR INTERDISCIPLINARY
(16 hours must be advanced 3000, 4000 level**)**

C – SUPPORT COURSES – 28 HOURS

ENVR 1301/1101 Introduction to Environmental Sciences/Lab
BIOL 1306/1106 General Biology I/ Lab I
BIOL 1307/1107 General Biology II/Lab II
GEOL 1303/1103 Physical Geology/Lab
GEOL 1304/1104 Historical Geology/Lab
CHEM 1311/1111 General Chemistry I/Lab I
MATH 1342 Elementary Statistics
MATH 2413 Calculus I (†) *

D – ELECTIVES – 4 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirement.

Restricted Environmental Sciences Electives
Choose 16 hours from one of the following concentrations:

BIOLOGY
Concentration:

BIOL 3303	Genetics
BIOL 3103	Genetics Laboratory
BIOL 3314	Invertebrate Zoology
BIOL 3114	Invertebrate Zoology Laboratory
BIOL 4302	Marine Zoology
BIOL 4102	Marine Zoology Lab
BIOL 4314	Plant Taxonomy
BIOL 4114	Plant Taxonomy Lab
BIOL 4309	Herpetology
BIOL 4109	Herpetology Lab
BIOL 4327	Coastal Ecology
BIOL 4127	Coastal Ecology Lab
BIOL 4370	Topics in Biology
BIOL 4170	Topics in Biology Lab
BIOL 4422	Conservation Biology

CHEMISTRY
Concentration:
** Choosing upper-level Chemistry courses will add additional semester credit hours to the total hours required for this degree because of pre-requisites.

CHEM 3303	Biochemistry I
CHEM 3103	Biochemistry Laboratory I
CHEM 3305	Analytical Chemistry
CHEM 3105	Analytical Chemistry Lab
CHEM 3310	Physical Chemistry I
CHEM 3110	Physical Chemistry Laboratory I
CHEM 3312	Physical Chemistry II
CHEM 3112	Physical Chemistry Laboratory II
CHEM 4305	Instrumental Methods of Analysis
CHEM 4105	Instrumental Methods of Analysis Laboratory
CHEM 4306	Environmental Chemistry

GEOSCIENCES
Concentration:

GEOL 3436	Hydrology and Water Resources
GEOL 4335	Geomorphology
GEOL 4411	Sedimentology and Stratigraphy
GEOL 4431	Coastal Geology
GEOL 4440	Geographic Information Systems
GEOL 4441	Principles of Remote Sensing
GEOL 4350	Geoscience Field Excursion
GEOG 3333	Latin American Geography
ENVR 3351	Environmental Science Field Methods and Data Analysis
ENVR 4370	Topics in Environmental Sciences
ENVR 4170	Topics in Environmental Sciences Laboratory

INTERDISCIPLINARY
Concentration:
Any combination of 16 hours from the 3 concentrations listed above.

GOVERNMENT

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The concepts, skills, and knowledge that are acquired as part of a Bachelor of Arts degree can lead to many diverse career fields, including civil service, teaching, law, policy consultant, journalism, non-profit sector management, Foreign Service, politics, and government. Acquired skills include oral, written, and technological communication, critical thinking and problem solving, and quantitative and qualitative analysis. A degree in Government can lead to Master and Ph.D. degrees.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in Government must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – MAJOR REQUIREMENTS – 36 HOURS

1 – Core Courses for the Major – 3 hours

GOVT 3331 Research Methods

2 – Advanced American Government – 6 hours

GOVT 3314 American State and Local Government
GOVT 3363 American Hispanic Politics
GOVT 3373 Contemporary Texas
GOVT 4320 American Constitutional Law: Powers
GOVT 4321 American Constitutional Law: Civil Liberties
GOVT 4360 The Presidency
GOVT 4363 The Congress
GOVT 4366 American Political Parties & Politics
GOVT 4367 The Judiciary
GOVT 4368 Special Topics in American Gov.

3 – Comparative Government or International Relations – 3 hours

GOVT 3322 Introduction to Comparative Politics
GOVT 3343 Global Politics and International Relations
GOVT 4369 Latin American Politics
GOVT 4370 European Politics
GOVT 4371 Contemporary International Issues
GOVT 4378 Middle Eastern Politics

4 – Political Theory – 3 hours

GOVT 4372 Classical Political Theory
GOVT 4373 Modern Political Theory

5 – Public Administration – 3 hours

GOVT 3301 Citizenship and Community Development
GOVT 3302 Ethics and Public Service
GOVT 3323 Foundations of Public Adm. and Service
GOVT 3385 Internship
GOVT 4312 Issues in Public Planning
GOVT 4314 Leadership and Non-Profit Org.
GOVT 4365 Public Personnel Administration
GOVT 4374 American Public Policy
GOVT 4376 Contemp. Issues in Homeland Sec.

6 – Government Electives – 12 hours

(12 hours must be advanced 3000, 4000 level)

7 – Economic Principles – 6 hours

ECON 2301 Macroeconomics
ECON 2302 Microeconomics

C – SUPPORT AREA AND/OR ELECTIVES – 36 HOURS

(6 hours must be advance 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

HEALTH SERVICES TECHNOLOGY

Bachelor of Applied Technology (B.A.T.)

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The BAT Health Services prepares individuals for leadership positions in health services, education, vocational, corporate training and consulting and other highly marketable fields.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Health Service Technology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Science

BIOL 2301/2101 Human Anatomy & Physiology I/Lab I
BIOL 2302/2102 Human Anatomy & Physiology II/Lab II

080 – Social and Behavioral Sciences

SOCI 1301 Introduction to Sociology ***or***
PSYC 2301 Introduction to Psychology

A – GENERAL EDUCATION CORE – 48 HOURS

B – AAS DEGREE OR EQUIVALENT – 36 HOURS

Degree Major: _____ Date:_____
Institution: _____

C – HEALTH SERVICES TECHNOLOGY TRACK* – 36 HOURS

1 – Health Services Professional Core – 21 hours

Choose 21 hours from the following:

HPRS 3301 Introduction to the Evolving Health Care System
HPRS 3302 Medical Law/Ethics for the Health Professional
HPRS 3309 Leading and Managing the Health Care Team
HPRS 3313 Physical and Mental Health Throughout the Lifespan
HPRS 3316 Nutrition Concepts for Allied Health Practitioners
HPRS 3320 Patient Education in Health Sciences
HPRS 3324 Teaching in the Health Sciences
HPRS 4300 Pharmacology for Health Professional
HPRS 4301 Introduction to Health Data Utilization
HPRS 4302 Continuous Quality Improvement
HPRS 4309 Research Methods in Evidenced-Based Healthcare
HPRS 4312 Applied Pathophysiology
HPRS 4316 Applied Medical Microbiology
HPRS 4330 Independent Study
HPRS 4334 Issues and Trends in Health Care
HPRS 4360 Practicum in Health Services

2 – Health Services Technology Electives – 15 hours

(15 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* Departmental approval required.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

HEALTH & HUMAN PERFORMANCE
(KINESIOLOGY)
Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION

A baccalaureate degree in kinesiology with non-certification prepares students for non-teaching careers in the areas of fitness, health and recreation in public and corporate settings.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Kinesiology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Sciences

BIOL 2301/2101 Human Anatomy & Physiology I/Lab I
BIOL 2302/2102 Human Anatomy & Physiology II/Lab II ***or*** BIOL 1307/1107 General Biology II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 51 hours

1 – Core Courses for the Major – 48 hours

KINE 1301 Introduction to Sports and Exercise Science
KINE 1306 First Aid/First Responder
KINEU 2304 Outdoor Education
KINE 1308 Sports Officiating (Football/Volleyball) ***or*** KINE 1309 Sports Officiating (Basketball/Softball)
KINE 3302/KINEU 1135 Kinesiology Curriculum for Elementary School Students
KINE 4309/KINEU 1136 Kinesiology Curriculum for Secondary School Students
KINE 3314 Dance for Children and Adolescents
KINE 3330 Coaching of Sports
KINE 3340 Principles of Wellness and Fitness
KINE 3353/3153 Physiology of Exercise and Human Performance/Lab
KINE 3370 Biomechanics
KINE 4310 Measurement Techniques in Physical Exercise and Sports
KINE 4311 Psychology of Sports and Exercise
KINE 4351 The Adapted Kinesiology Program
KINE 4356 Motor Development

2 - KINESIOLOGY ACTIVITIES-3 hours

KINE 1111 Folk and Square Dance
KINE 1124 Swimming
KINE 1133 Basic Sports Skills

C – SUPPORT AREA AND/OR ELECTIVES – 21 HOURS

(3 hours must be advance 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
The General Education Core courses listed are those recommended for this major.

HEALTH & HUMAN PERFORMANCE - EXERCISE SCIENCE

BS.KINE.ES
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION

A baccalaureate degree in Exercise Science prepares students for careers in the areas of professional preventive and clinical settings career opportunities include: medicine, physical therapy, occupational therapy, cardiac rehabilitation, personal training, strength and conditioning, athletic training, massage therapy, allied health professions, etc.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Exercise Science must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Sciences

BIOL 2301/2101 Human Anatomy & Physiology I/Lab I
BIOL 2302/2102 Human Anatomy & Physiology II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 42 hours

1 – Core Courses for the Major – 38 hours

KINE 1306 First Aid
HLTHU 2325 Nutrition
KINE 3353/3153 Physiology of Exercise and Human Performance/Lab
KINE 3360/3160 Exercise Testing and Prescription /Lab
KINE 3365 Physiology and Techniques of Strength/Power Fitness
KINE 3370 Biomechanics
KINE 4310 Measurement Techniques in Physical Exercise and Sports
KINE 4351 The Adapted Kinesiology Program
KINE 4355 Pediatric Exercise Physiology
KINE 4360 Clinical Exercise Physiology
KINE 4370 Management in Exercise and Health Promotion
KINE 4380 Exercise Science Internship

2 - KINESIOLOGY ACTIVITIES- 4 hours

KINE 1101 Aerobic Dance and Exercise
KINE 1124 Swimming
KINE 1130 Weight Training
KINE 1134 Physical Conditioning

C – SUPPORT AREA AND/OR ELECTIVES – 30 HOURS

(4 hours must be advance 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

HISTORY

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

History majors learn how to think critically and communicate effectively. These skills prepare them for a variety of professions, including education, government, politics, journalism, law, and non-profit organizations.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in History must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – MAJOR REQUIREMENTS – 39 HOURS

1 – Core Courses for the Major - 18 hours

- HIST 2321 World History I
- HIST 2322 World History II
- HIST 2380 Mexican-American Studies
- HIST 3340 Texas History
- HIST 4390 American History Senior Seminar
- HIST 4392 World History Senior Seminar

2 – American History – 3 hours

- HIST 3313 American Colonial Era to 1783
- HIST 3324 Formative Period of American Nation, 1783-1840
- HIST 4303 The Emergence of Modern America, 1877-1917
- HIST 4313 Twentieth Century America, 1917 to Present
- HIST 4320 Advanced Topics in American History
- HIST 4338 American Intellectual Social History
- HIST 4343 Era of Sectional Conflict
- HIST 4344 United States Diplomatic History
- HIST 4345 North American Economic History
- HIST 4380 History of World War I and II
- HIST 4381 U.S. Military History

3 – European and World History – 3 hours

- HIST 4360 Advanced Topics in European/World History
- HIST 4365 History of the Middle Ages
- HIST 4367 History of Early Modern Europe
- HIST 4369 Nineteenth Century Europe
- HIST 4371 History of the Islamic World
- HIST 4372 History of Russia
- HIST 4374 History of Asia
- HIST 4379 Modern Europe: 1914 – Present
- HIST 4380 History of World War I and II
- HIST 4385 Ancient History

4 – Latin American History – 3 hours

- HIST 3334 Mexico and the Borderlands Through Independence
- HIST 3335 Mexico Since Independence
- HIST 4350 Advanced Topics in Latin American History
- HIST 4357 History of Modern Latin America

5 – History Electives – 12 hours

(12 hours must be advanced 3000, 4000 level)

C – SUPPORT AREA AND/OR ELECTIVES – 33 HOURS

(6 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

MATHEMATICS

BS.MATH
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Mathematics is both an exact science and a highly creative endeavor; a field of study that develops problem-solving skills and a passion for inquiry. Mathematics Majors are surprisingly attractive to many professional branches in our society, particularly intelligence, technology, finance, security, engineering and physics. A BS in Mathematics will prepare the graduate for a competitive position in society and provide the necessary preparation for graduate studies.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Mathematics must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 48 HOURS **

1 – Core Courses for the Major – 39 hours

MATH 2305 Discrete Mathematics
MATH 2318 Linear Algebra
MATHU 2332 Geometry I
MATH 2413 Calculus I*
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 3321 Algebra I
MATH 3306 Foundations of Mathematics
MATH 3339 Topology
MATH 3341 Real Analysis
MATH 3349 Differential Equations
MATH 3381 Statistics
MATH 4342 Complex Analysis

2 – Restricted Math electives – 9 hours

Choose 3 courses from the following list:

MATH 4321 Algebra II
MATH 3328 Advanced Linear Algebra
MATH 4329 Number Theory
MATH 3332 Geometry II
MATH 4343 Advanced Analysis
MATH 4374 Probability and Statistics
MATH 4367 Numerical Analysis

C – MATH/SCIENCE ELECTIVES – 18 HOURS

(6 hours must be advanced 3000, 4000 level and selected with faculty advisor)

D – SUPPORT COURSES – 6 HOURS

COSC 1336 Programming Fundamentals I
MATH 3366 Computer Algebra Systems

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch toward major requirement. Pre-requisite for Calculus is MATH 2412-Pre-Calculus or Departmental Placement Test.
** Prior to graduation, a student must take Major Field Test in Mathematics.

Source: Academic Advising Center
academicadvising@utb.edu

Program Rev. Date: 5-15-09
Catalog Date: 5-12-10

MUSIC – GUITAR

BM.GUIT
2010 - 2011

Bachelor of Music in Performance

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

This degree is designed to fully develop the technical skills and musical performance abilities of guitar students at professional level. As such, the technical and repertoire requirements meet or exceed the current standards of university instruction in the United States in this field. Students will be immersed in the process of preparing music for both solo and ensemble performance so that they understand and utilized the training elements conducive to success in musical performance and instruction. Students will be prepared to perform solo guitar works which demonstrate a high level of technical and stylistic mastery with diverse repertoire representative of the Renaissance, Baroque, Classical, Romantic, and Modern eras.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music in Performance – Guitar must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

050 – Visual and Performing Arts

MUSI 1308 Music Literature and History I

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 53 HOURS

1 – Core Courses for the Major – 53 hours

MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4211 Computer Applications in Music
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1287 Applied Music I (†)
MUAP 1288 Applied Music II (†)
MUAP 2287 Applied Music III (†)
MUAP 2288 Applied Music IV (†)
MUAP 3301 Applied Music V * (†) (Student must pass a sophomore recital before enrolling in MUAP 3301).
MUAP 3302 Applied Music VI (†)
MUAP 4301 Applied Music VII * (†) (Student must pass a junior recital before enrolling in MUAP 4301).
MUAP 4302 Applied Music VIII* (†) (Student must pass a senior recital before graduation).

C – GUITAR OPTION COURSES – 19 HOURS

MUSI 3370 Topics in Music Literature
MUSI 3380 Music Pedagogy
MUEN 1137/3137 Guitar Orchestra (8 core ensemble)
Choose 5 hours of MUEN Secondary Ensemble (Must be enrolled in core and secondary ensemble every semester).
Suggested secondary ensembles: Choir, Chamber, Improvisation, Jazz Guitar, Jazz Band, and Mariachi.

TOTAL CREDIT HOURS FOR GRADUATION – 120
TOTAL ADVANCED HOURS (minimum) – 36

† Grade of "C" or better is required for graduation.
In addition, each semester the student is required to be in a core ensemble and an elective ensemble of choice and be enrolled in the appropriate applied lesson, pass a piano proficiency exam and pass a comprehensive departmental exam before graduation. The student is required to be enrolled in piano class each long semester until the piano exam is passed.

MUSIC – INSTRUMENTAL

Bachelor of Music in Performance

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The program is designed to train students for careers in performance. Studies are multifaceted, with numerous opportunities for performance, ensemble training, research, and individual studies in a broad area of specialization. Private lessons, master classes, guest artists and clinicians, solo performance, and instrumental ensemble participation, together, encompass the foundation of the entire instrumental music program. Students in this program develop facility in public speaking, musical performance, and analytical skills. A Bachelor of Music degree is Performance often leads to a Masters degree.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music in Performance – Instrumental must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

FREN 1311 Elementary French
GERM 1311 Elementary German

050 – Visual and Performing Arts

MUSI 1308 Music Literature and History I

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 53 HOURS

1 – Core Courses for the Major – 53 hours

MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4211 Computer Applications in Music
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1287 Applied Music I (†)
MUAP 1288 Applied Music II (†)
MUAP 2287 Applied Music III (†)
MUAP 2288 Applied Music IV (†)
MUAP 3301 Applied Music V * (†) (Student must pass a sophomore recital before enrolling in MUAP 3301).
MUAP 3302 Applied Music VI (†)
MUAP 4301 Applied Music VII * (†) (Student must pass a junior recital before enrolling in MUAP 4301).
MUAP 4302 Applied Music VIII* (†) (Student must pass a senior recital before graduation).

C – INSTRUMENTAL OPTION COURSES – 19 HOURS

MUSI 3370 Topics in Music Literature
MUSI 3380 Music Pedagogy
Choose 8 hours of MUEN (core ensemble)
Choose 5 hours of MUEN Ensembles (must be advanced level)
(Must be enrolled in core ensemble and an elective ensemble each semester).

TOTAL CREDIT HOURS FOR GRADUATION – 120
TOTAL ADVANCED HOURS (Minimum) - 36

† Grade of "C" or better is required for graduation.
In addition, each semester the student is required to be in a core ensemble and an elective ensemble of choice and be enrolled in the appropriate applied lesson, pass a piano proficiency exam and pass a comprehensive departmental exam before graduation. The student is required to be enrolled in piano class each long semester until the piano exam is passed.

MUSIC – KEYBOARD

BM.KEYB
2010 – 2011

Bachelor of Music in Performance

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The Bachelor of Music in Piano Performance is a professional music degree that prepares students for future careers as performers, composers and especially as teachers in higher education. The skills developed through the program include: collaborative piano, ensemble playing, conducting, and a comprehensive knowledge of music theory, will prove essential to become not only a well rounded performer but also a successful music teacher, fit for the highly diverse demands of the field. Students in this program develop facility in public speaking, musical performance, and analytical skills. A Bachelor of Music degree in Performance often leads to a Masters degree.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music in Performance – Keyboard must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

FREN 1311 Elementary French
GERM 1311 Elementary German

050 – Visual and Performing Arts

MUSI 1308 Music Literature and History I

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 53 HOURS

1 – Core Courses for the Major – 53 hours

MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4211 Computer Applications in Music
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1287 Applied Music I (†)
MUAP 1288 Applied Music II (†)
MUAP 2287 Applied Music III (†)
MUAP 2288 Applied Music IV (†)
MUAP 3301 Applied Music V * (†) (Student must pass a sophomore recital before enrolling in MUAP 3301).
MUAP 3302 Applied Music VI (†)
MUAP 4301 Applied Music VII * (†) (Student must pass a junior recital before enrolling in MUAP 4301).
MUAP 4302 Applied Music VIII* (†) (Student must pass a senior recital before graduation).

C - KEYBOARD OPTION COURSES – 19 HOURS

MUSI 1114 Keyboard Skills I
MUSI 1115 Keyboard Skills II
MUSI 3370 Topics in Music Literature
MUSI 3380 Music Pedagogy
MUEN 1142/3142 Accompanying (8 core ensembles)
Choose 3 hours of MUEN Secondary Ensembles *(Must be enrolled in core ensemble and an elective ensemble each semester).*

TOTAL CREDIT HOURS FOR GRADUATION – 120
TOTAL ADVANCED HOURS (Minimum) - 36

† Grade of "C" or better is required for graduation.

In addition, each semester the student is required to be in a core ensemble and an elective ensemble of choice and be enrolled in the appropriate applied lesson, pass a piano proficiency exam and pass a comprehensive departmental exam before graduation. The student is required to be enrolled in piano class each long semester until the piano exam is passed.

MUSIC – VOCAL

Bachelor of Music in Performance

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The program is designed to train students for future careers as professional musicians, specifically in opera and choral music. Studies in classical vocal technique form the foundation of the degree; musicianship, music theory, aural skills, and conducting are also key areas of focus. Students in this program develop facility in public speaking and musical performance, analytical skills, and competence in several languages. A Bachelor of Music degree in Performance often leads to a Masters degree.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music in Performance – Vocal must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

FREN 1311 Elementary French
GERM 1311 Elementary German

050 – Visual and Performing Arts

MUSI 1308 Music Literature and History I

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 53 HOURS

1 – Core Courses for the Major – 53 hours

MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4211 Computer Applications in Music
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1287 Applied Music I (†)
MUAP 1288 Applied Music II (†)
MUAP 2287 Applied Music III (†)
MUAP 2288 Applied Music IV (†)
MUAP 3301 Applied Music V * (†) (Student must pass a sophomore recital before enrolling in MUAP 3301).
MUAP 3302 Applied Music VI (†)
MUAP 4301 Applied Music VII * (†) (Student must pass a junior recital before enrolling in MUAP 4301).
MUAP 4302 Applied Music VIII* (†) (Student must pass a senior recital before graduation).

C – VOCAL OPTION COURSES – 19 HOURS

MUSI 1162 Diction I
MUSI 1165 Diction II
MUSI 3370 Topics in Music Literature
MUSI 3380 Music Pedagogy
Choose 11 hours of MUEN Ensembles (*Must be enrolled in core ensemble and an elective ensemble each semester).*

TOTAL CREDIT HOURS FOR GRADUATION – 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
In addition, each semester the student is required to be in a core ensemble and an elective ensemble of choice and be enrolled in the appropriate applied lesson, pass a piano proficiency exam before student teaching and pass a comprehensive departmental exam before graduation. The student is required to be enrolled in piano class each long semester until the piano exam is passed.

BACHELOR OF MULTIDISCIPLINARY STUDIES

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The BMS provides those who want to further their education and career possibilities by broadening their expertise beyond a single area of concentration. Students select the coursework that appeals to them in a variety of disciplines and combine them, creating their own specialized degree. Students completing the BMS program will be able to apply the knowledge and skills to: expand their career and employment opportunities as a result of a multidisciplinary education; and continue their studies in a graduate degree or post-baccalaureate professional program being fully prepared with the analytical skills necessary to success within demanding and highly-competitive fields.

IMPORTANT TO STUDENTS: CHECK WITH AN ACADEMIC ADVISOR FOR CONCENTRATION SELECTION, COURSE PREREQUISITES OR ADMISSION TO PROGRAMS.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Multidisciplinary Studies must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – DEGREE REQUIREMENTS * – 39 HOURS

Take two 18-Hour Concentrations from Liberal Arts, Sciences, Business, Education, Health Science, or Applied Technologies. Courses in a concentration must be from the same discipline.

1 – Concentration I – 18 hours
(12 hours must be advanced 3000, 4000 level)

2 – Concentration II – 18 hours
(12 hours must be advanced 3000, 4000 level)

3 – Computer Applications – 3 hours
BCIS 1305 Business Computer Applications ***or*** COSC 1301 Microcomputer Applications

C – ELECTIVES – 33 HOURS

(12 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

*Either Business or APBT courses can make up one concentration.
*Residency requirements must be met.

BACHELOR OF MULTIDISCIPLINARY STUDIES

Concentrations (Upper-Level Courses)

All prerequisites for 3000, 4000 level courses must be met.

***ALLIED HEALTH** - Select 18 Hours from the following courses:

HPRS 3301 Intro. to the Evolving Healthcare System
HPRS 4309 Research Methods in Evidenced-Based Healthcare
HPRS 4302 Continuous Quality Improvement
HPRS 3316 Nutritional Concepts for Health Professionals
HPRS 4312 Applied Pathophysiology
HPRS 3313 Physical and Mental Health throughout the Lifespan
HPRS 4334 Issues and Trends in Health Care
HPRS 3324 Teaching in the Health Sciences

***ALLIED HEALTH- Cancer Information Management**

HITT 3301 Cancer Program Standard & Registry Operations
HITT 3302 Cancer Disease Management
HITT 3304 Cancer Statistics and Epidemiology
HITT 3305 Cancer Disease Staging
HITT 3206 Cancer Disease Coding
HITT 3107 Cancer Information Management Practicum

***ALLIED HEALTH- Polysomnography**

RSPT 4320 Fundamental of Polysomnography
RSPT 4210 Polysomnography Instrumentation I
RSPT 4221 Clinical Polysomnography – Sleep Staging I
RSPT 4330 Polysomnographic Therapeutic Intervention
RSPT 4215 Ploysomnography Instrumentation II
RSPT 4323 Clinical Polysomnography – Sleep Staging II

***APPLIED BUSINESS TECHNOLOGY**

APBT 3309 Workforce Ethics
APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
APBT 3322 Information & Technology in Organizations
APBT 3314 Employment Services
APBT 4380 Leadership Foundations
APBT 4391 Current Issues in Applied Technology

***BUSINESS – Business Management Information System**

BMIS 3301 Web Programming with Java (no prerequisites)
BMIS 3302 Database Information Systems (BMIS 3301)
BMIS 3303 E-Commerce Strategies **±**
BMIS 3351 Information Systems in Organizations **±**
BMIS 4303 Web Systems Development (BMIS 3301, BMIS 3302)
BMIS 4304 Systems Analysis E-Business (BMIS 3301, BMIS 3302, BMIS 4303)

± Admission to Upper Division

EDUCATION

These courses are to be counted as electives and are only for degree purposes and ***do not count for certification***. Students do not apply for admission into the Teacher Certification Program but must complete general education core to be eligible to enroll into education courses.

ECED 4385 Growth and Development of Young Children
ECED 4389 The Environment and Early Childhood
SPED 3390 Introduction to Exceptional Children
SPED 4320 Legal Roles and Responsibilities of the Special Educator
EDLI 3311 *or* BILS 3310
EDSL 4306 Content Area Method in ESL Classroom
EDSL 4307 Foundations of Bilingual/ESL

*** # BUSINESS - Management ****

MANA 3361 Principles of Management (no prerequisites)
MANA 4352 Business and Society
MANA 3362 Human Resource Management (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management)
MANA 4360 Organizational Theory and Behavior (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management
MANA 4367 Topics in Management (Pre-requisite: Admission to Upper Division and MANA 3361 Principles of Management)

***CRIMINAL JUSTICE**

CRIJ 3302 Research Methods In Criminal Justice
CRIJ 3315 Legal Aspects of Evidence
CRIJ 3331 Legal Aspects of Corrections
CRIJ 4341 Correctional Casework & Counseling
CRIJ 4312 Principles of Law Enforcement Supervision
CRIJ 4363 Gangs and Gang Behavior

***EDUCATIONAL TECHNOLOGY**

EDTC 3310 Introduction to Educational Technology
EDTC 3320 Instructional Design for the Corporate Trainer
EDTC 3321 Computer/Web-Based Training
EDTC 3323 Designing Instructional Multimedia
EDTC 3332 Application of Instructional Technology
EDTC 3325 Computer Mediated Communication and Collaboration

***LEGAL STUDIES**

ALAW 3307 Civil Litigation Advanced
ALAW 3310 Immigration Law & Procedures
ALAW 3312 Evidence
ALAW 3315 Criminal Law and Procedure-Advanced
ALAW 4301 Legal Research and Writing
ALAW 4310 Appeals and Brief Writing

***TECHNOLOGY CORPORATE TRAINING**

TECT 3301 Foundations of Technology Training
TECT 3302 Psychology of Technology Training
TECT 3303 Training Methods in Industry
TECT 4304 The Trainer and Consultant for Technology Education
TECT 4305 Current Issues in Technology Training
TECT 4306 Technology Training in Multicultural Environments
(Technology Training Certificate awarded for 12 hours training block)

**** ≠ COMPUTER INFORMATION SYSTEMS***

Select from any 3000 or 4000 level Computer Information Systems courses
≠ Courses online Tests proctored.

GOVERNMENT

Select from any 3000 or 4000 level Government courses

HISTORY

Select from any 3000 or 4000 level History courses

PSYCHOLOGY

Select from any 3000 or 4000 level Psychology courses

SOCIOLOGY

Select from any 3000 or 4000 level Sociology courses

SPANISH

Select from any 3000 or 4000 level Spanish courses

TRANSLATION STUDIES IN SPANISH

Select from any 3000 or 4000 level Translation Studies in Spanish courses

NOTE: Other concentrations may be available upon approval by advisor.
*Concentrations are offered on-line.
** ONLY one concentration from School of Business permitted. Student must request admission to upper division from the Office of Degree Completion.
# Courses offered online alternate each semester.

NURSING

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF NURSING

Graduates of the Bachelor of Science in Nursing Program have the following employment opportunities: faculty clinical teaching assistant, clinician, nursing staff member in Veteran's Administration health system, eligible for multiple certifications including certification as a holistic nurse, case manager, supervision of unlicensed personnel, leadership positions, public health, home healthcare, school nurse.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR (†)

Students seeking the Bachelor of Science in Nursing must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics

MATH 1314 College Algebra

030 – Natural Sciences

BIOL 2301/2101 Human Anatomy and Physiology I / Lab I
BIOL 2302/2102 Human Anatomy and Physiology II / Lab II

A – GENERAL EDUCATION CORE – 48 HOURS (†)

B – MAJOR REQUIREMENTS – 73 HOURS

1 – Core Courses for the Nursing Major - 38 hours

NURS 3701 Nursing of the Adult Client with Alterations in Homeostasis
NURS 3702 Nursing of the Childbearing and Childrearing Families
NURS 3303 Nursing of the Family in Psychosocial Crisis
NURS 3604 Clinical Skills in Nursing
NURS 3705 Advanced Concepts of Clinical Decision Making
NURS 3207 Nursing in the Community
NURS 3308 Health Assessment in Nursing Practice
NURS 3309 Pharmacology and Client Care

2 – Nursing Class Base Core Courses – 32 hours

NURS 4305 Perspectives in Professional Nursing Practice
NURS 4407 Foundations of Holistic Nursing
NURS 4309 Research and Evidence Based Nursing Practice
NURS 4611 Health Promotion in Professional Nursing
NURS 4313 Trans-cultural Nursing
NURS 4615 Professional Nursing in the Community
NURS 4217 Contemporary Issues in Professional Nursing
NURS 4519 Leadership in Professional Nursing

3 – Additional Degree Base Requirements – 3 hours

x3xx Statistics (MATH 1342 or PSYC 2317 or SOCI 2317)

TOTAL CREDIT HOURS FOR GRADUATION - 121
TOTAL ADVANCED HOURS (minimum) - 36

† All courses require a minimum grade of C of admission to the BSN program.

PHYSICS

BS.PHYS
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

A graduate with BS Physics degree can opt for either a Masters/Ph. D in Physics or related fields to pursue a career in college/university teaching, or may prepare for professional experience (with appropriate certification) in school districts as a science teacher or even in the industry.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Physics must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

030 – Natural Sciences

PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 44 HOURS

1 – Core Courses for the Major – 29 hours

PHYS 3400 Modern Physics
PHYS 3201 Advanced Physics Laboratory I
PHYS 3310 Classical Mechanics
PHYS 3320 Thermodynamics
PHYS 3490 Mathematics for Scientists and Engineers I
PHYS 3492 Mathematics for Scientists and Engineers II
PHYS 4300 Undergraduate Research
PHYS 4320 Quantum Mechanics
PHYS 4330 Electromagnetic Theory

2 – Physics Electives – 6 hours

(6 hours must be advanced 3000, 4000 level)

3 – Restricted Electives** – 9 hours

** Chemistry, Biology, Computer Science, Advanced Math, or Advanced Physics.
Advisor approval is required.

C – SUPPORT COURSES – 23 HOURS

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 3349 Differential Equations
CHEM 1311/1111 General Chemistry I/Lab I
CHEM 1312/1112 General Chemistry II/Lab II
COSC 1336 Programming Fundamentals I

D - ELECTIVES – 5 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch for support courses

PHYSICS – Biophysics Specialization

BS.PHYS.BIO
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

A graduate with BS Biophysics degree can opt for either a Masters/Ph. D in Biophysics/Molecular Biology/Nanotechnology or related fields to pursue a career in college/university teaching, or may prepare for professional experience (with appropriate certification) in school districts as a science teacher. Graduates with a degree in this track or similar track also have the option to appear in MCAT and go to medical school.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Physics – Biophysics Specialization must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

030 – Natural Sciences

PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 51 HOURS

1 – Core Courses for the Major – 29 hours

PHYS 3400 Modern Physics
PHYS 3201 Advanced Physics Laboratory I
PHYS 3310 Classical Mechanics
PHYS 3320 Thermodynamics
PHYS 3490 Mathematics for Scientists and Engineers I
PHYS 3492 Mathematics for Scientists and Engineers II
PHYS 4300 Undergraduate Research
PHYS 4320 Quantum Mechanics
PHYS 4330 Electromagnetic Theory

2 – Biophysics Core – 22 hours

CHEM 2323/2123 Organic Chemistry/Lab
BIOL 3312/3112 Cell and Molecular Biology/Lab
CHEM 3303/3103 Biochemistry/Lab
PHYS 3315 Physics of Biological Systems
PHYS 4315 Analysis of Biomolecules by Physical Methods
BENG 4320/4120 Molecular Bioengineering/Lab

C - SUPPORT COURSES – 21 HOURS

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
CHEM 1311/1111 General Chemistry I/Lab I
CHEM 1312/1112 General Chemistry II/Lab II
BIOL 1306/1106 General Biology I/Lab I
BIOL 1307/1107 General Biology II/Lab II

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
* MATH 2413-3 sch for general education and 1 sch for support courses

PSYCHOLOGY

BA.PSYC
2010 – 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

A college degree in psychology opens the door to one of the most challenging and rewarding professional fields today. Psychology students learn the necessary skills to assist people in improving their mental health; they also gain knowledge and abilities that are valued in many other fields, such as business and politics. At the bachelor's level, psychology graduates are sought in fields like Mental health casework statistics, probation and corrections, public relations, health education, social work, human resources, recreational therapy, education,and physician assisting among others.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Psychology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences (1 course – 3 hours required)

ANTH 2351 Cultural Anthropology
BUSI 1301 Introduction to Business
ECON 2301 Macroeconomics
GEOG 1303 General World Geography
SOCI 1301 Introduction to Sociology
SOCI 2319 The Mexican American Experience

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 34 HOURS

1 – Core Courses for the Psychology Major - 13 hours

PSYC 2301 Introduction to Psychology
PSYCU 2102 Orientation for Psychology Majors
PSYC 2317 Statistical Methods in Psychology
PSYC 3301 Research Methods in Psychology
PSYC 4363 Theories in Psychology

2 – Psychology Areas of Study – 21 hours

Psychology as Field of Study

Choose at least 1 from the following:

PSYC 2308 Child Psychology
PSYC 2314 Lifespan Development
PSYC 3302 Adolescent Psychology
PSYC 3303 Adulthood and Aging
PSYC 3326 Social Psychology
PSYC 3363 Human Sexuality
PSYC 3312 Psychology of Gender
PSYC 3313 Abnormal Psychology
PSYC 3333 Theories of Personality
PSYC 4374 Topics in Psychology

Psychology as a Science

Choose at least 1 from the following:

PSYC 3318 Theories Learning
PSYC 3322 Biopsychology
PSYC 4302 Advanced Statistics for Psychology
PSYC 4319 Cognitive Psychology
PSYC 4322 Sensation and Perception
PSYC 4330 Psychology and the Legal Systems

Psychology as an Application of Knowledge

Choose at least 2 from the following:

PSYC 3324 Health Psychology
PSYC 3343 Tests and Measurements in Psychology
PSYC 4305 Behavior Management and Modification
PSYC 4306 Conflict Resolution
PSYC 4356 Industrial & Organizational Psychology
PSYC 4360 Clinical and Counseling Psychology
PSYC 4380 Independent Study

C – SUPPORT AREA AND/OR ELECTIVES – 38 HOURS

(9 – 15 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

PUBLIC SERVICE

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

A Bachelor of Arts in Public Service will provide accessible, affordable, high-quality undergraduate preparation to train students for employment and careers in leadership and management in public service. The program will provide students with skills in the areas of public policy formulation, implementation and evaluation, and public and non-profit management to enhance employment opportunities in national, state, and local governments. A Bachelor of Arts degree in Public Service can lead to Masters and Ph.D. degrees in Public Policy and Management, Public Administration, Public Affairs, and Urban and Regional Planning.

A – GENERAL EDUCATION CORE – 48 HOURS

Students seeking the Bachelor of Arts in Public Service must fulfill the General Education Core requirements in the same manner as other students. For any additional degree requirements, please contact the Academic Advising Center.

B – MAJOR REQUIREMENTS – 45 HOURS

1 – Core Courses for the Major – 15 hours

GOVT 3323 Foundations of Public Administration and Service
GOVT 3331 Research Methods
GOVT 3332 Applied Statistics Public Service
GOVT 3301 Citizenship and Community Develop.
GOVT 3302 Ethics and Public Service

2 – Government Electives – 15 hours

GOVT 4312 Issues in Public Planning
GOVT 4365 Public Personnel Administration
GOVT 4374 American Public Policy
GOVT 4376 Contemporary Issues in Homeland Security
GOVT 4314 Leadership & Non-Profit Organization
GOVT 3343 Global Politics and International Relations
GOVT 3363 American Hispanic Politics
GOVT 3314 American State and Local Government
GOVT 3385 Internship

3 – Government Electives – 6 hours

GOVT 4360 The Presidency
GOVT 4363 The Congress
GOVT 4366 American Political Parties and Politics
GOVT 4367 The Judiciary
GOVT 4368 Special Topics in American Government

4 –Leadership and Public Service – 3 hours

LEADU 1301 Introduction to Public Service and Leadership

5 –Economic Principles – 6 hours

ECON 2301 Macroeconomics
ECON 2302 Microeconomics

C – SUPPORT AREA AND/OR ELECTIVES – 27 HOURS

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

SOCIOLOGY

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

A college degree in sociology presents students with diverse career choices. Sociology graduates often find employment as researchers, consultants or administrators for federal, state, and local governments. A sociologist may also find employment in the private sector with educational institutions and business. The job demand for sociologists should grow by 10% between 2006 and 2016.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Sociology must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences (1 course – 3 hours required)

ANTH 2351 Cultural Anthropology
BUSI 1301 Introduction to Business
ECON 2301 Macroeconomics
GEOG 1303 General World Geography
PSYC 2301 Introduction to Psychology
SOCI 2319 The Mexican American Experience

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 33 HOURS

1 – Core Courses for the Sociology Major - 12 hours

SOCI 1301 Introduction to Sociology
SOCI 2317 Statistical Methods in Sociology
SOCI 3335 Social Theory
SOCI 4305 Methods of Social Research

2 – Distribution Courses – 21 hours

(One course must be at 4000 level and must choose at least one course from each category)

Category I: Community

SOCI 2301 Marriage and Family
SOCI 3333 American Communities
SOCI 3323 Hispanics in a Global Society
SOCI 4325 Population and Migration

Category II: Stratification

SOCI 3363 Gender
SOCI 3364 Minorities
SOCI 4352 Social Inequality

Category III: Authority

SOCI 3324 Sociology of Health
SOCI 3373 Mass Communications and Culture
SOCI 3374 Religion in Society
SOCI 4375 Organizations and Work

Category IV: Alienation

SOCI 1306 Social Problems
SOCI 3313 Criminology
SOCI 3393 Aging
SOCI 4314 Sociology of Deviance

Additional Distribution Electives

SOCI 4374 Special Topics
SOCI 4383 Independent Study

C – SUPPORT AREA AND/OR ELECTIVES – 39 HOURS

(9 – 15 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

SPANISH

BA.SPAN
2010 – 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

A student with a BA degree in Spanish may consider work in the following areas: ***Government*** *(Armed Forces, Department of Justice, Immigration & Naturalization Service),* ***Non-Profit Organizations*** *(Civic Organizations, International Exchange Programs, Social Work and Social Services),* ***Commerce*** *(Customer Service, Translation and Interpretation, Research, Marketing Firms),* ***Travel and Tourism*** *(Airlines and Airports, Travel Agencies, Convention Centers),* ***Arts Media & Entertainment*** *(Advertising, Foreign News Agencies, Museums) or* ***Public Service*** *(Civil Service, International Service Organizations, Social and Rehab Services).*

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Spanish must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

SPAN 2321 Hispanic Language & Culture I
SPAN 2322 Hispanic Language & Culture II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 33 HOURS

1 – Core Courses for the Major – 27 hours

SPAN 3301 Spanish Literature (1100 - 1750)
SPAN 3302 Spanish Literature (1750 - present) ***or*** SPAN 4309 Contemporary Spanish Literature
SPAN 3303 Advanced Spanish Composition
SPAN 3310 Masterpieces of Spanish American Literature I
SPAN 3311 Masterpieces of Spanish American Literature II
SPAN 3330 Spanish Grammar
SPAN 4310 Spanish Phonology and Phonetics ***or*** SPAN 4317 Spanish Language in Social Context
SPAN 4371 Chicano Narrative

Select 3 hours from the following list:

SPAN 3340 The Hispanic World
SPAN 4303 Hispanic Civilization
SPAN 4373 Topic Studies in Hispanic Culture

2 - Spanish Electives - 6 hours

(6 hours must be advanced 3000, 4000 level)

C – SUPPORT AREA AND/OR MINOR AND/OR ELECTIVES – 39 HOURS

(3 hours must be advanced 3000, 4000 level)

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.

SPANISH TRANSLATION AND INTERPRETING

BA.TRSP
2010 - 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

The program is designed to help future practitioners of the art and science of Translation and Interpreting to play a vital role in the global society of the 21st century. The program contributes to the development of analytical skills, cultural literacy, linguistic competence, and the professionalism needed to become superior translators and interpreters, a profession in high demand in the legal, medical and business worlds, in governmental agencies at all levels, as well as in private industry.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Spanish Translation and Interpreting must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

SPAN	2321	Hispanic Language & Culture I	***or***	SPAN	2313	Basic Spanish for Bilinguals I
SPAN	2322	Hispanic Language & Culture II		SPAN	2315	Basic Spanish for Bilinguals II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 39 HOURS

1 – Core Courses for the Major – 33 hours

SPAN 2316 Career Spanish
SPAN 2317 Business Spanish
TRSPU/SPANU 2318 Basic Spanish to English Translation
TRSPU/SPANU 2319 Basic English to Spanish Translation
TRSP/SPAN 3332 Spanish / English Translation
TRSP/SPAN 3333 English / Spanish Translation
TRSP/SPAN 3334 Translation Technologies
TRSP/SPAN 4332 Commercial Translation
TRSP/SPAN 4334 Legal Translation
TRSP 4366 Interpreting I
TRSP 4367 Interpreting II ***or*** TRSP 3335 Topics in Translation

2 - Translation Electives - 6 hours

(6 hours must be advanced 3000, 4000 level)

E – SUPPORT AREA AND/OR MINOR AND/OR ELECTIVES – 33 HOURS

(9 hours must be advanced 3000, 4000 level)
(Recommended Minor in Spanish or French Language and Translation)

Recommended Courses for Spanish Majors/Minors/Support Areas
SOCI 2319 The Mexican American Experience
ENGL 2332 World Literature to 1660
ECON 2301 Macroeconomics
GEOG 1303 General World Geography
FREN Any level

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

WORKFORCE LEADERSHIP AND TRAINING

Bachelor of Applied Technology (B.A.T.)^

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

The BAT Workforce Leadership and Training prepares individuals for leadership positions in business, public services, governmental, and industrial occupations, as well as other related fields.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Workforce Leadership and Training must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 1314 College Algebra ***or*** MATH 1342 Elementary Statistics

080 – Social and Behavioral Sciences (1 course – 3 hours required)

ECON 2301 Macroeconomics
SOCI 1301 Introduction to Sociology
PSYC 2301 Introduction to Psychology
SOCI 2319 The Mexican American Experience

A – GENERAL EDUCATION CORE – 48 HOURS

B – AAS DEGREE OR EQUIVALENT – 33 HOURS

Degree Major: _____ Date:_____
Institution: _____

C – WORKFORCE LEADERSHIP AND TRAINING – 39 HOURS

1 – Workforce Leadership Core – 27 hours

APBT 3309 Workforce Ethics
APBT 3312 Administrative Office Management
APBT 3335 Applied Organizational Communication
MANA 3361 Principles of Management
MANA 3362 Human Resource Management *
MANA 4366 Small Business Management *
MARK 3371 Principles of Marketing
APBT 3322 Information and Technology in Organizations
APBT 4391 Current Issues in Applied Technology

2 – Training – 12 hours

TECT 3301 Foundations of Technology Training **
TECT 3302 Psychology of Technology Training **
TECT 3303 Training Methods in Industry **
TECT 4304 The Trainer and Consultant for Technology Education **

TOTAL CREDIT HOURS FOR GRADUATION - 120
TOTAL ADVANCED HOURS (minimum) - 36

* Student must have a minimum 2.5 GPA in General Education Core and request admission to upper division from the College of Applied Technology and General Studies.
** Technology Training Certificate awarded for 12 hours training block.
† Grade of "C" or better is required for graduation.
^ Not a School of Business Degree.
Students must have a 2.75 cumulative G.P.A for admissions to the ACP program.

EARLY CHILDHOOD – 6TH GRADE BILINGUAL GENERALIST

BAIS.EC-6.BILC.GEN
2010 – 2011

Bachelor of Arts in Interdisciplinary Studies

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION **Teacher Certification**

Once a student graduates with a BAIS degree and pass their required TExES (state exams) then they can secure employment in a teaching position.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Interdisciplinary Studies in Early Childhood 6th Grade Bilingual Generalist must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication
SPAN 2321 Hispanic Language & Culture I
SPAN 2322 Hispanic Language & Culture II

050 - Visual and Performing Arts
MUSI 1304 Teaching Music in the Elementary School

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours
EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility- 18 hours (†, £)
EDCI 3314 Methods in Teaching Mathematics and Science (†, £)
EDCI 4322 Human Development and Instruction (†, £)
EDCI 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDCI 4325 Implementing Responsive Instr. & Assessment (†, £)
EDBI 4608 Student Teaching EC-6 Bilingual Generalist (†, £)

3 – Reading - 9 hours (£)
BILS 3310 Emergent Literacy in the Bilingual Classroom (Spanish) (£)
BILS 3312 Teaching Reading in the Bilingual Classroom (Spanish) (£)
BILS 3314 Content Area Methodology in the Bilingual Classroom (£)

4 – English/Spanish - 12 hours
ENGL 3319 Introduction to Descriptive Linguistics
ENGL 3330 English Grammar
SPAN 4316 Acquisition of the Spanish Language
SPAN 4368 Children's Literature in Spanish

5 – Social Studies - 6 hours
GEOG 3320 Cultural Geography for Educators
INDS 3303 Culture & Humanity: Human Diversity in Cross Cultural Perspective

6 – Math - 6 hours
MATH 1350 Fundamental of Mathematics for Teachers I
MATH 1351 Fundamental of Mathematics for Teachers II

7 – Science - 4 hours
PSCI 4210 Physical Science for Teachers I
PSCI 4220 Physical Science for Teachers II
* Science Lab (from General Education Core)
* Science Lab (from General Education Core)

8- Combination of Subjects – 17 hours (£)
EDSL 4307 Foundation of ESL (£)
ECED 4385 Growth and Development of the Young Child (£)
ECED 4389 The Environmental and Early Childhood (£)
SPED 4386 Modifications in Inclusive Settings (£)
EDLI 3329 Literacy Assessment for ESL Learners (£)
KINEU 2255 Health & Motor Development for EC-4 (£)

TOTAL CREDIT HOURS FOR GRADUATION - 126

TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/ Student Teaching Rqmts. Contact College of Education for further Information.

EARLY CHILDHOOD – 6TH GRADE ESL GENERALIST

BAIS.EC-6.ESL.GEN
2010 - 2011

Bachelor of Arts in Interdisciplinary Studies

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION

Teacher Certification

Once a student graduates with a BAIS degree and pass their required TExES (state exams) then they can secure employment in a teaching position.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Interdisciplinary Studies in Early Childhood 6th Grade ESL Generalist must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

050 - Visual and Performing Arts
MUSI 1304 Teaching Music in the Elementary School

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours
EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility - 21 hours (†, £)
EDCI 3314 Methods in Teaching Mathematics and Science (†, £)
EDSL 4306 Content Area Methods in the ESL Classroom (†, £)
EDCI 4322 Human Development and Instruction (†, £)
EDCI 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £)
EDCI 4325 Implementing Responsible Instr. & Assess. (†, £)
EDCI 4608 Student TeachingEC-6 ESL Generalist (†, £)

3 – Reading - 12 hours (£)
EDLI 3311 Beginning English Literacy for Eng. Lang. Learn. (£)
EDLI 3325 Beginning Literacy for ESL Learners: 2nd – 4th Grades(£)
EDLI 3329 Literacy Assessment for E. S. L. Learners (£)
EDLI 3340 E.S.L. Language Arts and Literature (£)

4 – English - 9 hours
ENGL 3319 Introduction to Descriptive Linguistics
ENGL 4325 Composition Techniques
ENGL 3330 English Grammar

5 – Social Studies - 6 hours
GEOG 3320 Cultural Geography for Educator
INDS 3303 Culture & Humanity: Human Diversity in Cross Cultural Perspective

6 – Math - 6 hours
MATH 1350 Fundamental of Mathematics for Teachers I
MATH 1351 Fundamental of Mathematics for Teachers II

7 – Science - 4 hours
PSCI 4210 Physical Science for Teachers I
PSCI 4220 Physical Science for Teachers II
* Science Lab (from General Education Core)
* Science Lab (from General Education Core)

8- Combination of Subjects – 14 hours (£)
EDSL 4307 Foundation of ESL (£)
ECED 4385 Growth and Development of the Young Child (£)
ECED 4389 The Environment and Early Childhood (£)
SPED 4386 Modifications Inclusive Settings (£)
KINEU 2255 Health & Motor Development for EC-4 (£)

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/ Student Teaching Rqmts. Contact College of Education for further Information.

EARLY CHILDHOOD – 6TH GRADE GENERALIST /EC-12TH GRADE SPECIAL EDUCATION

BAIS.EC-6.SPED.GEN
2010 - 2011

Bachelor of Arts in Interdisciplinary Studies

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION

Teacher Certification

Once a student graduates with a BAIS degree and pass their required TExES (state exams) then they can secure employment in a teaching position.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Interdisciplinary Studies in Early Childhood 6th Grade Generalist/EC-12th Grade Special Education must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

050 - Visual and Performing Arts

MUSI 1304 Teaching Music in the Elementary School

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility – 18 hours (†, £)

EDCI 3314 Methods in Teaching Mathematics and Science (†, £)
EDCI 4322 Human Development and Instruction (†, £)
EDCI 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDCI 4325 Implementing Responsive Instruction & Assessment (†, £)
EDCI 4311 Student Teaching EC-6 (†, £)
SPED 4313 Student Teaching Generic Special Education (†, £)

3 – Reading – 9 hours (£)

EDLI 3311 Beginning English Literacy for Eng. Lang. Learn. (£)
EDLI 3329 Literacy Assessment for E. S. L. Learners (£)
EDLI 3340 E.S.L. Language Arts and Literature (£)

4 – English – 9 hours

ENGL 3319 Introduction to Descriptive Linguistics
ENGL 4325 Composition Techniques
ENGL 3330 English Grammar

5 – Social Studies – 3 hours

GEOG 3320 Cultural Geography for Educator

6 – Math – 6 hours

MATH 1350 Fundamental of Mathematics for Teachers I
MATH 1351 Fundamental of Mathematics for Teachers II

7 – Science – 4 hours

PSCI 4210 Physical Science for Teachers I * Science Lab (from General Education Core)
PSCI 4220 Physical Science for Teachers II * Science Lab (from General Education Core)

8 – Combination of Subjects – 21 hours (£)

SPED 3390 Introduction to Exceptional Children (£)
SPED 4320 Legal Roles and Resp. of the Special Educator (£)
SPED 4330 Problems in Lang. and Lit. for Inds. w/Special Needs(£)
SPED 4380 Classroom Inst. For Individuals w/Special Needs (£)
SPED 4395 Practicum in Generic Special Education (£)
ECED 4389 The Environment and Early Childhood (£)
SPED 4350 Teaching Struggling Learn. in Inclusive Class. (£)

9 – Additional Requirements – 2 hours

KINEU 2255 Health and Motor Development for EC-4

TOTAL CREDIT HOURS FOR GRADUATION - 126

TOTAL ADVANCED HOURS (minimum) – 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/ Student Teaching Rqmts. Contact College of Education for further Information.

ENGLISH / LANGUAGE ARTS / READING – 4th – 8th GRADE TEACHING

BA.ENGL.4-8
2010 - 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

Because the field of English provides students with essential skills necessary to communicate effectively, enrich their lives both materially and intellectually, and function as productive members of society, students who major in English have options for employment in many fields, most notably in education and industry.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in English / Language Arts/ Reading (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 21 hours (†, £)

EDUCU 2303 Technology in Education (†, £)
EDMG 4322 Human Development and Instruction (†, £)
EDMG 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDMG 4325 Implementing Responsive Instr. & Assessment (†, £)
SPED 4386 Modifications Inclusive Settings (†, £)
EDMG 4648 Student Teaching in the Middle Grade (†, £)

3 – Certification Fields – 39 hours (£)

EDLI 3343 Foundations of Beginning Literacy (£)
EDLI 4329 Literacy and Assessment (£)
EDLI 4350 Adolescent Literature (£)
EDLI 4351 Content Area Literacy (£)
EDLI 4367 Teaching Read to the English Language Learner (£)
ENGL 3302 Literary Analysis (£)
ENGL 3312 ***or*** ENGL 3313 American Literature Survey (£)
ENGL 3319 Introduction to Descriptive Linguistics (£)
ENGL 3330 English Grammar (£)
ENGL 4301 Shakespeare (£)
ENGL 4325 Composition Techniques (£)
ENGL 4328 Intro. to English as a Second Language (£)
ENGL 4350 English Studies (£)

4 – Math – 6 hours

MATH 1350 Fundamental of Mathematics for Teachers I
MATH 1351 Fundamental of Mathematics for Teachers II

5 – Science – 4 hours

PSCI 4210 Physical Science for Teachers I
PSCI 4220 Physical Science for Teachers II
* Science Lab from General Education Core
* Science Lab from General Education Core

TOTAL CREDIT HOURS FOR GRADUATION - 124
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/Student Teaching Requirements. Contact College of Education for further information.

MATHEMATICS 4TH - 8TH GRADE TEACHING

BS.MATH.4-8
2010 - 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Teacher Certification

Mathematics Majors with Teacher Certification are attractive to the growing demand for teachers in high schools, middle schools and elementary schools. A BS in Mathematics will prepare the graduate for an exciting and rewarding teaching position and provide the necessary preparation for graduate studies.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Mathematics (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility – 21 hours (†, £)

EDUCU 2303 Technology in Education (†, £)
EDMG 4322 Human Development and Instruction (†, £)
EDMG 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDMG 4325 Implementing Responsive Instruction & Assessment (†, £)
EDMG 4378 Teaching Mathematics in 4 – 8 Classrooms (†, £)
EDMG 4648 Student Teaching in the Middle Grade (†, £)

3 – Core Courses for the Major – 38 hours

MATH 1342 Elementary Statistics
MATH 1350 Fundamentals of Mathematics for Teachers I
MATH 1351 Fundamentals of Mathematics for Teachers II
MATH 2318 Linear Algebra I
MATHU 2332 Geometry
MATH 2413 Calculus I
MATH 2414 Calculus II
MATH 3310 Survey of Mathematical Concepts and Principles I
MATH 3317 Survey of Mathematical Concepts and Principles II
MATH 3321 Algebra I
MATH 3332 Geometry II
MATH 4361 Problem Solving for Teachers

4- Combination of Subjects – 9 hours (£)

EDLI 4351 Content Area Literacy
EDLI 4367 Teaching Read to the English Language Leaner
SPED 4386 Modifications Inclusive Settings

5 – Science - 4 hours

PSCI 4210 Physical Science for Educators I * Science Lab
PSCI 4220 Physical Science for Educators II * Science Lab

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower than a C.
Student must meet all Program Admission Requirements/ Student Teaching Requirements. Contact College of Education for further Information.
* Prior to graduation, a student must take Major Field Test in Mathematics.

SCIENCE – 4th – 8th GRADE TEACHING

BS.SCI.4-8
2010 - 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Teacher Certification

Stepping stone towards a Master degree in discipline and an Ed.D. Teaching science at the elementary school levels. Many enter administrative positions such as deans, asst. principals and principals etc.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Science

BIOL 1306/1106 General Biology I/Lab I
BIOL 1307/1107 General Biology II/Lab II

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 21 hours (†, £)

EDUCU 2303 Technology in Education (†, £)
EDMG 4322 Human Development and Instruction (†, £)
EDMG 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDMG 4325 Implementing Responsive Instr. & Assessment (†, £)
EDMG 4377 Teaching Science in 4th – 8th Classrooms (†, £)
EDMG 4648 Student Teaching in the Middle Grade (†, £)

3 – Science – 11 hours

BIOL 3309/3109 Ecology/Lab
BIOL 3303/3103 Genetics/Lab
BIOL 4330 Integrative Biology for Middle School Teachers

4 – Biology Electives – 4 hours

Select *one* from the following:

BIOL 3308/3108 Plant Morphology/Lab
BIOL 3314/3114 Invertebrate Zoology/Lab

5 – Support Courses – 18 hours

CHEM 1311/1111 General Chemistry I/Lab I
CHEM 1312/1112 General Chemistry II/Lab II
PHYS 1310/1110 Conceptual Physics/Lab
GEOL 1301/1101 Principles of Earth Sciences/Lab
PSCI 4210 Physical Science for Educators I

6 – Math – 6 hours

MATH 1350 Fundamentals of Mathematics for Teachers I
MATH 1351 Fundamentals of Mathematics for Teachers II

7 – Support – 9 hours (†, £)

EDLI 4351 Content Area Literacy (†, £)
EDLI 4367 Teaching Read to the English Language Learner (†, £)
SPED 4386 Modifications Inclusive Settings (†, £)

8 – Elective - 1 hour

Recommended: COSC 1301 or other computer science course agreed by advisor ***or*** PSCI 4220 Physical Science for Educators II

TOTAL CREDIT HOURS FOR GRADUATION – 124
TOTAL ADVANCED HOURS (minimum) – 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/Student Teaching Rqmts. Contact College of Education for further information.

ENGLISH / LANGUAGE ARTS / READING – 8th – 12th GRADE TEACHING

BA.ENGL.8-12
2010 - 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

Because the field of English provides students with essential skills necessary to communicate effectively, enrich their lives both materially and intellectually, and function as productive members of society, students who major in English have options for employment in many fields, most notably in education and industry.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in English / Language Arts/ Reading (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility – 18 hours (†, £)

EDUCU 2303 Teaching in Education (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess.(†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

3 – Reading / English – 24 hours

ENGL 3302 Literary Analysis
ENGL 3319 Introduction to Descriptive Linguistics
ENGL 3330 English Grammar
ENGL 3331 History of the English Language
ENGL 4325 Composition Techniques
EDLI 4329 Literacy and Assessment (†, £)
ENGL 4350 English Studies
EDLI 4367 Teaching Read to the English Lang. Learner (†, £)

4 – Literature – 9 hours

ENGL 3309 Major British Authors
ENGL 3312 **or** ENGL 3313 Survey of American Literature
ENGL 4301 Shakespeare

5 – Literature Electives – 9 hours

(9 hrs must be advanced 30000, 4000 level)
Recommended: courses divided among British & American Literature

6 – Support Courses – 12 hours

EDLI 4350 Adolescent Literature (†, £)
EDLI 4351 Content Area Literacy (†, £)
ENGL 4328 Introduction to English as a Second Language
SPED 4386 Modifications Inclusive Settings (†, £)

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/Student Teaching Rqmts. Contact College of Education for further information.

HISTORY – 8th – 12th GRADE TEACHING

BA.HIST.8-12
2010 - 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

History majors learn how to think critically and communicate effectively. These skills prepare them for a variety of professions, including government, politics, journalism, law, non-profit organizations, and education. This degree plan is designed for students who want to become teachers in the state of Texas.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in History (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

080 – Social and Behavioral Sciences
PSYC 2301 Introduction to Psychology

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility- 18 hours (†, £)

EDUCU 2303 Teaching in Education (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess.(†, £)
EDSC 4641 Student Teaching Secondary (†, £)

3 – Core Courses for the Major - 18 hours

HIST 2321 World History I
HIST 2322 World History II
HIST 2380 Mexican-American Studies
HIST 3340 Texas History
HIST 4390 American History Senior Seminar
HIST 4392 World History Senior Seminar

4 – American History – 6 hours

HIST 3313 American Colonial Era to 1783
HIST 3324 Formative Period of American Nation, 1783-1840
HIST 4303 The Emergence of Modern America, 1877-1917
HIST 4313 Twentieth Century America, 1917 to Present
HIST 4320 Advanced Topics in American History
HIST 4338 American Intellectual Social History
HIST 4343 Era of Sectional Conflict, 1840 – 1877
HIST 4344 United States Diplomatic History
HIST 4345 North American Economic History
HIST 4380 History of World War I and II
HIST 4381 U.S. Military History

5 – European and World History – 6 hours

HIST 4360 Advanced Topics in European/World History
HIST 4365 History of the Middle Ages
HIST 4367 History of Early Modern Europe
HIST 4369 Nineteenth Century Europe: 1789 - 1914
HIST 4371 History of the Islamic World
HIST 4372 History of Russia
HIST 4374 History of Asia
HIST 4379 Modern Europe: 1914 – Present
HIST 4380 History of World War I and II
HIST 4385 Ancient History

6 – Latin American History – 6 hours

HIST 3334 Mexico and the Borderlands through Independence
HIST 3335 Mexico since Independence
HIST 4350 Advanced Topics in Latin American History
HIST 4357 History of Modern Latin America

7 – Government Electives – 6 hours

(6 hours must be advanced 3000, 4000 level)

8 – Electives – 6 hours

Student must select hours from: ECON 2301, ECON 2302, Upper Level GEOG, and Upper Level INDS.

9 – Combination of Subjects – 6 hours (†, £)

EDLI 4351 Content Area Literacy (†, £)
SPED 4386 Modification in Inclusive Settings (†, £)

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with no grade lower than a C. Student must meet all Program Admission Requirements/Student Teaching Rqmts. Contact College of Education for further information.

HISTORY - SOCIAL STUDIES – 8th – 12th GRADE TEACHING

BA.HIST.SS.8-12
2010 - 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

History majors learn how to think critically and communicate effectively. These skills prepare them for a variety of professions, including government, politics, journalism, law, non-profit organizations, and education. This degree plan is specifically designed for students who want to become Social Studies teachers in Brownsville and the Lower Rio Grande Valley.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in History/Social Studies (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Science
GEOL 1301/1101 Principles of Earth and Sciences/Lab
GEOL 1303/1103 Physical Geology/Lab

080 – Social and Behavioral Sciences
GEOG 1303 General World Geography

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours
EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility - 18 hours (†, £)
EDUCU 2303 Teaching in Education (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess.(†, £)
EDSC 4641 Student Teaching Secondary (†, £)

3 – Core Courses for the Major - 18 hours
HIST 2321 World History I
HIST 2322 World History II
HIST 2380 Mexican-American Studies
HIST 3340 Texas History
HIST 4390 American History Senior Seminar
HIST 4392 World History Senior Seminar

4 – American History – 3 - 6 hours
HIST 3313 American Colonial Era to 1783
HIST 3324 Formative Period of American Nation, 1783-1840
HIST 4303 The Emergence of Modern America, 1877-1917
HIST 4313 Twentieth Century America, 1917 to Present
HIST 4320 Advanced Topics in American History
HIST 4338 American Intellectual Social History
HIST 4343 Era of Sectional Conflict, 1840 – 1877
HIST 4344 United States Diplomatic History
HIST 4345 North American Economic History
HIST 4380 History of World War I and II
HIST 4381 U.S. Military History

5 – European and World History – 3 - 6 hours
HIST 4360 Advanced Topics in European/World History
HIST 4365 History of the Middle Ages
HIST 4367 History of Early Modern Europe
HIST 4369 Nineteenth Century Europe: 1789 -1914
HIST 4371 History of the Islamic World
HIST 4372 History of Russia
HIST 4374 History of Asia
HIST 4379 Modern Europe: 1914 – Present
HIST 4380 History of World War I and II
HIST 4385 Ancient History

6 – Latin American History – 3 - 6 hours
HIST 3334 Mexico and the Borderlands Through Independence
HIST 3335 Mexico Since Independence
HIST 4350 Advanced Topics in Latin American History
HIST 4357 History of Modern Latin America

7 – Government Electives – 12 hours
GOVT 3373 Contemporary Texas
(9 hours must be advanced 3000, 4000 level)
*Choose at least one Upper Level course from each group:
Group 1: GOVT 3322, 3343, 4369, 4370, 4371
Group 2: GOVT 4320, 4321, 4360, 4363, 4366, 4367, 4368, 4374

8 – Economics Requirements – 6 hours
ECON 2301 Macroeconomics
ECON 2302 Microeconomics

9 – Geography Electives – 3 hours
GEOG 3320 Cultural Geography for Educators ***or*** GEOG 3333 Latin American Geography

10 – Combination of Subjects – 3 hours (†, £)
EDLI 4351 Content Area Literacy (†, £)

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C. Student must meet all Program Admission Requirements/Student Teaching Rqmts. Contact College of Education for further information.

MATHEMATICS – 8TH – 12TH GRADE TEACHING

BS.MATH.8-12
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Teacher Certification

Mathematics Majors with Teacher Certification are attractive to the growing demand for teachers in high schools, middle schools and elementary schools. A BS in Mathematics will prepare the graduate for an exciting and rewarding teaching position and provide the necessary preparation for graduate studies.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Mathematics (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)

MATH 2413 Calculus I

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS** – 51 HOURS

1 – Pedagogy and Professional Responsibility – 18 hours (†, £)

EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess. to Promote Stud. Lrng. (†, £)
EDSC 4325 Implementing Responsive Instruction & Assess. (†, £)
EDSC 4378 Teaching Math in 8-12 Classroom (†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

2 – Core Courses for the Major – 39 hours

MATH 2305 Discrete Mathematics
MATH 2318 Linear Algebra
MATHU 2332 Geometry I
MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 3321 Algebra I
MATH 3339 Topology
MATH 3341 Real Analysis
MATH 3349 Differential Equations
MATH 3381 Statistics
MATH 4342 Complex Analysis
MATH 3306 Foundation of Mathematics

3 – Teaching Concentration – 9 hours

MATH 3310 Survey of Mathematical Concepts and Principles I
MATH 4329 Number Theory
MATH 4361 Problem Solving for Teachers

4 – Math Electives – 3 hours

(3 hours must be advanced 3000, 4000 level)

5 – Support Courses - 6 hours

COSC 1336 Programming Fundamentals I
MATH 3366 Computer Algebra Systems

6 – Literacy – 3 hours (£)

EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) – 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
* MATH 2413 – 3 sch for general education and 1 sch toward Major requirements. Pre-requisite for Calculus is MATH 2412-Pre-Calculus Mathematics or Departmental Placement Test.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.
Student must meet all Program Admission Requirements/Student Teaching Requirements. Contact College of Education for further information.
** Prior to graduation a student must take Major Field Test in Mathematics.

BIOLOGY – 8TH – 12TH GRADE TEACHING

BS.BIOL.8-12
2010 - 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Science 8-12 Certification

Stepping stone towards a Master degree in discipline and an Ed.D. Teaching science at the middle and senior school levels. Many enter administrative positions such as deans, asst. principals and principals etc. Can become adjunct instructors at the college level.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Biology (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
CHEM 1311/1111 General Chemistry I /Lab I
CHEM 1312/1112 General Chemistry II/Lab II

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 - Pedagogy & Professional Responsibility- 18 hours (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learn. (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess. (†, £)
EDSC 4379 Teaching Science in 8-12 Classrooms (†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

2 – Core Courses for the Major – 28 hours
BIOL 1306/1106 General Biology I/Lab I
BIOL 1307/1107 General Biology II/Lab II
BIOL 2343/2143 General Biology III/Lab III
BIOL 3303/3103 Genetics/Lab
BIOL 3309/3109 Ecology/Lab
BIOL 3312/3112 Cell and Molecular Biology/Lab
BIOL 4100 Biology Seminar
BIOL 4301 Evolution

3 – Biology Electives – 12 hours
(6 hours must be advanced 3000, 4000 level)

4 – Support Courses – 17 hours
CHEM 2323/2123 Organic Chemistry I/Laboratory I
CHEM 2325/2125 Organic Chemistry II/Laboratory II
MATH 2413 Calculus I (†)*
PHYS 1301/1101 General Physics I/Lab I
Choose 4 credits from the following courses:
PHYS 1302/1102 General Physics II/Lab II
GEOL 1303/1103 Physical Geology/Lab
GEOL 1304/1104 Historical Geology/Lab
ENVR 1301/1101 Introduction to Environmental Science I/Lab I
GEOL/GEOG 4440 Geographic Information Systems

5 – Literacy – 3 hours (†, £)
EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
* MATH 2413 – 3 sch for general education and 1 sch for support courses.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.

CHEMISTRY – 8TH – 12TH GRADE TEACHING

BS.CHEM.8-12
2010 - 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Science 8-12 Certification

The Bachelor of Science in Chemistry is the basis for a number of avenues of employment and research. Careers in medicine and dentistry utilize a chemistry background. One can be employed in a wide range of laboratory research including forensic studies and pathology. Engineering and manufacturing research employ chemists. The pharmaceutical industry is a major employer of chemists. One may choose a research path in which case enrollment in graduate programs is required.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Chemistry (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
CHEM 1311/1111 General Chemistry I /Lab I
CHEM 1312/1112 General Chemistry II/Lab II

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 - Pedagogy & Professional Responsibility- 18 hours (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess. (†, £)
EDSC 4379 Teaching Science in 8-12 Classrooms (†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

2 – Core Courses for the Major –35 hours
CHEM 2323/2123 Organic Chemistry I /Lab I
CHEM 2325/2125 Organic Chemistry II/Lab II
CHEM 3301 Inorganic Chemistry
CHEM 3303/3103 Biochemistry I/Lab I
CHEM 3305/3105 Analytical Chemistry
CHEM 3310/3110 Physical Chemistry I/Lab I
CHEM 3312/3112 Physical Chemistry II/Lab II
CHEM 4110 Chemistry Seminar
CHEM 4305/4105 Instrumental Methods of Analysis/Lab
CHEM 4320 Chemistry Problems

2 – Chemistry Electives – 2 -3 hours
(Must be advanced 3000, 4000 level) – 2 hrs if MATH 2415 or 3 hrs if MATH 3349)

4 – Support Courses – 19-20 hours
PHYS 1301/1101 General Physics I/Lab I
PHYS 1302/1102 General Physics II/ Lab II
MATH 2413 Calculus I*
MATH 2414 Calculus II
MATH 3349 Differential Equations ***or*** MATH 2415 Calculus III
COSC 1301 Microcomputer Applications

5 – Literacy – 3 hours (†, £)
EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
* MATH 2413 – 3 sch for general education and 1 sch for support courses.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.

ENVIRONMENTAL SCIENCES- 8th – 12th GRADE TEACHING

BS.ENVR.8-12
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Science 8-12 Certification

The Department of Chemistry and Environmental Sciences offers a Bachelor of Science degree in Environmental Sciences. Employment opportunities include government agencies, wild life refuge management, private environmental mitigation firms, legal firms, and industry. Government agencies at all levels, from local to national, employ environmental planners and managers. The environmental science degree is utilized for park and wildlife managers, from national to local levels. One may wish to become continue in research and scholarship in which case graduate studies become a necessary option. With a concentration in Geographic Information Systems one can be employed by any number of agencies which utilize mapping including law enforcement, transportation, public utilities, and commercial entities.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Environmental Sciences (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General **E**ducation core requirements**.** For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
PHYS 1301/1101 General Physics I /Lab I
PHYS 1302/1102 General Physics II/ Lab II

080 – Social and Behavioral Sciences
GEOG 1303 General World Geography

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 40 HOURS

1 - Pedagogy & Professional Responsibility- 18 hours (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Inst. & Assess. (†, £)
EDSC 4379 Teaching Science in 8-12 Classrooms (†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

2 – Core Courses for the Major – 24 hours
BIOL 3309/3109 Ecology/Lab
ENVR 1302/1102 Introduction to Environmental Sciences II/Lab II
ENVR 3305/3105 Oceanography/Lab
ENVR 3334 Conservation of Natural Resources
ENVR 4301 Environmental Regulations
ENVR 4325 Environmental Science Internship
ENVR 4399 Research Problems in Environmental Sciences

3 – Restricted Environmental Sciences Elective – 5 hours
Choose from Concentration listed on reverse: BIOLOGY, GEOSCIENCES, CHEMISTRY OR INTERDISCIPLINARY
(5 hours must be advanced 3000, 4000 level**)**

4 – Support Courses –28 hours
ENVR 1301/1101 Introduction to Environmental Sciences/Lab
BIOL 1306/1106 General Biology I/ Lab I
BIOL 1307/1107 General Biology II/Lab II
GEOL 1303/1103 Physical Geology/Lab
GEOL 1304/1104 Historical Geology/Lab
CHEM 1311/1111 General Chemistry I/Lab I
MATH 1342 Elementary Statistics
MATH 2413 Calculus I (†) *

5 – Literacy – 3 hours (†, £)
EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
* MATH 2413 – 3 sch for general education and 1 sch for support courses.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.

Restricted Environmental Sciences Electives
Choose 16 hours from one of the following concentrations:

BIOLOGY
Concentration:

BIOL 3303	Genetics
BIOL 3103	Genetics Laboratory
BIOL 3314	Invertebrate Zoology
BIOL 3114	Invertebrate Zoology Laboratory
BIOL 4302	Marine Zoology
BIOL 4102	Marine Zoology Laboratory
BIOL 4314	Plant Taxonomy
BIOL 4114	Plant Taxonomy Laboratory
BIOL 4309	Herpetology
BIOL 4109	Herpetology Laboratory
BIOL 4327	Coastal Ecology
BIOL 4127	Coastal Ecology Laboratory
BIOL 4370	Topics in Biology
BIOL 4170	Topics in Biology Laboratory
BIOL 4422	Conservation Biology

CHEMISTRY
Concentration:
** Choosing upper-level Chemistry courses will add additional semester credit hours to the total hours required for this degree because of pre-requisites.

CHEM 3303	Biochemistry I
CHEM 3103	Biochemistry Laboratory I
CHEM 3305	Analytical Chemistry
CHEM 3105	Analytical Chemistry Laboratory
CHEM 3310	Physical Chemistry I
CHEM 3110	Physical Chemistry Laboratory I
CHEM 3312	Physical Chemistry II
CHEM 3112	Physical Chemistry Laboratory II
CHEM 4305	Instrumental Methods of Analysis
CHEM 4105	Instrumental Methods of Analysis Laboratory
CHEM 4306	Environmental Chemistry

GEOSCIENCES
Concentration:

GEOL 3436	Hydrology and Water Resources
GEOL 4335	Geomorphology
GEOL 4411	Sedimentology and Stratigraphy
GEOL 4431	Coastal Geology
GEOL 4440	Geographic Information Systems
GEOL 4441	Principles of Remote Sensing
GEOL 4350	Geoscience Field Excursion
GEOG 3333	Latin American Geography
ENVR 3351	Environmental Science Field Methods and Data Analysis
ENVR 4370	Topics in Environmental Sciences
ENVR 4170	Topics in Environmental Sciences Laboratory

INTERDISCIPLINARY
Concentration:
Any combination of 16 hours from the 3 concentrations listed above.

PHYSICS – 8TH – 12TH GRADE TEACHING

BS.PHYS.8-12
2010 – 2011

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Science 8-12 Certification

The BS.PHYS. 8-12 degree is beneficial to anyone who would like to become a middle or high school science teacher.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Physics (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 2413 Calculus I

030 – Natural Sciences
PHYS 2325/2125 University Physics I /Lab I
PHYS 2526/2126 University Physics II/Lab II

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS – 34 hours

1 – Pedagogy & Professional Responsibility – 18 hours (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £)
EDSC 4325 Implementing Resp. Instr. & Assess. (†, £)
EDSC 4379 Teaching Science in 8-12 Classroom (†, £)
EDSC 4641 Student Teaching, Secondary (†, £)

2 - Core Courses for the Major – 29 hours
PHYS 3400 Modern Physics
PHYS 3201 Advanced Physics Laboratory I
PHYS 3310 Classical Mechanics
PHYS 3320 Thermodynamics
PHYS 3490 Mathematics for Scientists and Engineers I
PHYS 3492 Mathematics for Scientists and Engineers II
PHYS 4300 Undergraduate Research
PHYS 4320 Quantum Mechanics
PHYS 4330 Electromagnetic Theory

2 – Physics Electives – 5 hours
(5 hours must be advanced 3000, 4000 level)

C – SUPPORT COURSES – 23 HOURS

MATH 2413 Calculus I* (†)
MATH 2414 Calculus II
MATH 2415 Calculus III
MATH 3349 Differential Equations
CHEM 1311/1111 General Chemistry I/Lab I
CHEM 1312/1112 General Chemistry II/Lab II
COSC 1336 Programming Fundamentals I

D – LITERACY – 3 HOURS (£)

EDLI 4351 Content Area Literacy (†, £)

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
* MATH 2413 - 3 sch for general education and 1 sch for support courses.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.

ART – EC - 12th GRADE TEACHING

BA.ARTS.EC-12
2010 – 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

A Bachelor of Arts in Arts EC-12 allows students the opportunity to become a certified art teacher and provides the necessary training in studio technique, curriculum and classroom strategies to go on to a career in arts education. Upon the completion of the degree students will be able to teach Art in any public school setting EC-12.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Art (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

050 – Visual and Performing Arts

ARTS 1303 Art History Survey I

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility – 18 hours (†, £)

EDUCU 2303 Technology in Education (†, £)
EDSC/EDCI 4322 Human Development and Instruction (†, £)*
EDSC 4324 Designing Inst. & Assess to Promote Std. Lrng. (†, £)*
EDSC 4325 Implementing Resp. Instr. & Assess. (†, £)*
EDCI 4311 Student Teaching EC-6th (†, £)
EDSC 4398 Student Teaching All Level (†, £)

3 – Core Courses for the Major – 21 hours

ARTS 1304 Art History Survey II
ARTS 1311 Two Dimensional Design
ARTS 1312 Three Dimensional Design
ARTS 1316 Drawing I
ARTS 3381 Art Ed. Theory and Background*
ARTS 3384 Art Ed. Classroom Strategies*
ARTS 4301 Senior Experience

4 - Choose 9 hours from the following:

ARTS 2313 Computer Imaging I
ARTS 2316 Painting I
ARTS 2333 Printmaking I
ARTS 2346 Ceramics I
ARTS 2356 Photography I
ARTS 2326 Sculpture I

5 - Choose 9 hours from the following:

ARTS 1317 Drawing II
ARTS 2314 Computer Imaging II
ARTS 2317 Painting II
ARTS 2334 Printmaking II
ARTS 2357 Photography II
ARTS 2327 Sculpture II
ARTS 2347 Ceramics II

6 - Choose 3 hours from the following:

ARTS 3303 Italian Renaissance 1400-1650
ARTS 3340 History of Women in Art
ARTS 3382 19th Century Euro. Art Hist. (1790-1900)
ARTS 4354 Latin American Art and Architecture
ARTS 4387 Far East Art History
ARTS 3338 Fundamentals of Creative and Critical Thinking in Art
ARTS 3352 Contemporary Art
ARTS 4353 American Art History
ARTS 4355 Span Medieval Renaissance & Baroque
ARTS 4390 Topics in Art History

7 - Choose 9 hours from the following:

ARTS 3314 Individual Problems^
ARTS 3321 Advanced Painting ^
ARTS 3323 Advanced Drawing^
ARTS 3326 Advanced Sculpture^
ARTS 3371 Advanced Ceramics^
ARTS 4331 Advanced Computer Imaging^
ARTS 4334 Advanced Printmaking^
ARTS 4359 Advanced Photography^
ARTS 4391 Studio Art General ^
ARTS 4337 Internship in Art Studio^

8 – Additional Requirements – 3 hours (†, £)

EDLI 4351 Content Area Literacy (†, £)

TOTAL CREDIT HOURS FOR GRADUATION - 126

TOTAL ADVANCED HOURS (minimum) - 36

^ May be repeated four times for credit
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.
* Before registration see Art Ed. Advisor.

COMPUTER INFORMATION SYSTEMS TECHNOLOGY
(Early Childhood – 12th Grade)

BAT.CIS.EC-12
2010 - 2011

Bachelor of Applied Technology (B.A.T.)

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

Teacher Certification

Graduates from the Computer Information System Technology degree apply information Technology (IT) to sustain the performance of a broad range of occupations and daily life situations by operating, configuring and maintaining software and hardware in computing systems. Employment opportunities are extensive in the field of IT and include positions such as analyst, specialist, or operation in data centers, networking, database management systems, IT support services, and teaching field.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Computer Information Systems Technology (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

020 – Mathematics (†)
MATH 1314 College Algebra ***or*** higher

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – AAS DEGREE OR EQUIVALENT – 36 HOURS

Degree Major approved by CIS department at least 30 SCH in computer related courses: _____
Institution: _____ Date: _____

C – COMPUTER INFORMATION SYSTEMS TECHNOLOGY CORE – 9 HOURS

COSC 1336 Programming Fundamentals I
COSC 1337 Programming Fundamentals II
CIST 3310 Foundations of Information Technology

D – CIST EDUCATION REQUIREMENT – 3 HOURS

CIST 3340 Concepts and Methods of Education Technology

E – CIST ELECTIVES – 9 HOURS

(9 hrs must be advanced 3000, 4000 level)

F – PEDAGOGY AND PROFESSIONAL RESPONSIBILITIES – 18 HOURS (£)

EDUCU 2303 Technology in Education (†, £)
EDCI/EDSC 4322 Human Development and Instruction (†, £)
EDCI 4324 Designing Instr. & Assmt. To Promote Stud. Lrng. (†, £)
EDSC 4325 Imp. Responsive Instruction & Assessment (†, £)
EDCI 4311 Student Teaching EC-4 (†, £)
EDSC 4398 Student Teaching 8-12 (†, £)

G – ADDITIONAL REQUIREMENTS – 3 HOURS (£)

EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

£ Maintain a minimum 2.50 GPA with no grade lower then a C. Student must meet all Program Admission Requirements/Student Teaching Requirements. Contact College of Education for further information.
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.

HEALTH & HUMAN PERFORMANCE– EC-12TH GRADE TEACHING
(KINESIOLOGY)
Bachelor of Science

BS.KINE.EC-12
2010 – 2011

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF EDUCATION

Teacher Certification

A baccalaureate degree in Kinesiology with certification prepares students for a variety of career options including but not limited to teaching physical education in the public schools; coaching sports; recreation careers; and entry level careers in fitness and health in public and corporate settings.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Science in Kinesiology (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Sciences

BIOL 2301/2101 Human Anatomy & Physiology I /Lab I
BIOL 2302/2102 Human Anatomy & Physiology II /Lab II ***or*** BIOL 1307/1107 General Biology II/Lab II

090 – Institutionally Designated Option

SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 - Pedagogy & Professional Responsibility- 18 hours (†, £)

EDUCU 2303 Technology in Education (†, £)
EDSC / EDCI 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Student Learning (†, £)
EDSC 4325 Implementing Responsive Instr. & Assessment (†, £)
EDCI 4311 Student Teaching EC-6th (†, £)
EDSC 4398 Student Teaching All Level (†, £)

3 – Certification Fields – 39 hours

KINE 1111 Folk and Square Dance
KINE 1124 Swimming
KINE 1133 Basic Sports Skills
KINE 3302/KINEU 1135 Kinesiology Curr. for Elem. School Std.
KINE 4309/KINEU 1136 Kinesiology Curr. for Sec. School Std.
KINE 1306 First Aid/First Responder
KINE 3314 Dance for Children and Adolescents
KINE 3330 Coaching of Sports
KINE 3340 Principles of Wellness and Fitness
KINE 3353/3153 Physiology of Ex. and Human Perf./Lab
KINE 3370 Biomechanics
KINE 4310 Measurement Tech. in Physical Ex. & Sports
KINE 4351 The Adapted Kinesiology Program
KINE 4356 Motor Development

4 - ELECTIVES – 12 hours

(6 hours must be advanced 3,000 4,000 level)

5 – Additional Requirements – 3 hours (†, £)

EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
£ Maintain a minimum 2.50 GPA with no grade lower then a C.
Student must meet all Program Admission Requirements/ Student Teaching Rqmts. Contact College of Education for further Information.

HEALTH SERVICES TECHNOLOGY – TEACHING

BAT.HST.TEACH
2010 – 2011

Bachelor of Applied Technology (B.A.T.)

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
OFFICE OF DEGREE COMPLETION PROGRAMS

Teacher Certification

The BAT Health Services prepares individuals for leadership positions in health services, education, vocational, corporate training and consulting and other highly marketable fields.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Applied Technology in Health Services Technology (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

030 – Natural Sciences (†)

BIOL 2301 /2101 Anatomy and Physiology I/Lab I
BIOL 2302 /2102 Anatomy and Physiology II/Lab II

080 – Social and Behavioral Sciences

SOCI 1301 Introduction to Sociology ***or***
PSYC 2301 Introduction to Psychology

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – *AS/AAS DEGREE IN A HEALTH RELATED FIELD OR EQUIVALENT – 30 HOURS

Degree Major: _____ Date:_____

Institution: _____

To qualify for teaching certification must meet the following qualifications:

- *Have a two year Associate degree in a medically related field*
- *Have completed and have state issued license to work in this field (ex: RN)*
- *Have 2 years of documented work experience in licensed field*

C – HEALTH SERVICES TECHNOLOGY TRACK – 21 HOURS

Choose 21 hours from the following:

HPRS 3301 Introduction to the Evolving Health Care System
HPRS 3302 Medical Law/Ethics for the Health Professional
HPRS 3309 Leading and Managing the Health Care Team
HPRS 3313 Physical and Mental Health Throughout the Lifespan
HPRS 3316 Nutrition Concepts for Allied Health Practitioners
HPRS 3320 Patient Education in Health Sciences
HPRS 3324 Teaching in the Health Sciences
HPRS 4300 Pharmacology for Health Professional
HPRS 4301 Introduction to Health Data Utilization
HPRS 4302 Continuous Quality Improvement
HPRS 4309 Research Methods in Evid.-Based Healthcare
HPRS 4312 Applied Pathophysiology
HPRS 4316 Applied Medical Microbiology
HPRS 4330 Independent Study
HPRS 4334 Issues and Trends in Health Care
HPRS 4360 Practicum in Health Services

D – PEDAGOGY AND PROFESSIONAL RESPONSIBILITY – 21 HOURS (£)

EDUC 2301 Introduction to Special Programs (†£)
EDUCU 2303 Technology in Education * (†£)
EDSC 4322 Human Development and Instruction (†£)
EDSC 4324 Designing Instr. & Ass. to Prom. Student Lear. (†£)
EDSC 4325 Implementing Responsive Instr. & Ass. (†£)
EDSC 4641 Student Teaching Secondary (†£)

E – ADDITIONAL REQUIREMENTS – 6 HOURS

EDLI 4351 Content Area Literacy (†£)
SPED 4386 Modifications in Inclusive Setting

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.
* Student must meet all Program Admissions Requirement/Student Teaching Rqmts. Admission to Teacher Education program required. Contact School of Education for further information.

MUSIC – GUITAR - EC-12th GRADE TEACHING

BM.GUIT.EC-12
2010 – 2011

Bachelor of Music

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

This degree is designed to fully develop the musical performance and teaching abilities of guitar students. Students will develop a firm understanding of solo and ensemble pedagogy in terms of processes, mechanics, and sequence while becoming familiar with pedagogic repertoire, teaching methods, and resource materials.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music – Guitar (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication
FREN 1311 Elementary French
GERM 1311 Elementary German

50 – Visual and Performing Arts
MUSI 1308 Music Literature and History I

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours (†)
EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 18 hours (†, £)
EDUCU 2303 Technology in Education (†, £) (Music Education Majors should contact advisor)
EDSC / EDCI 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £)(Music Education Majors should contact advisor)
EDSC / EDCI 4325 Implementing Resp. Instr. & Assess. (†, £) (Music Education Majors should contact advisor)
EDCI 4311 Student Teaching EC-6th (†, £)
EDSC 4398 Student Teaching All Level (†, £)

3 – Core Courses for the Major – 41 hours
MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration & Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3307 Secondary instrumental Techniques
MUSI 3312 Counterpoint & Analysis
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1187 (†), 1188 (†), 2187 (†), 2188 (†), 3101 (†), 3102 (†), 4101 (†) (Student must pass a sophomore recital before enrolling in MUAP 3301). Student must pass a junior/senior recital before enrolling EDCI 4311 and EDSC 4398.
*MUSI 3304 Elem. Music Tech., MUSI 3306 Sec. Chor. Tech., and MUSI 4211 Computer App. * Recommended for teacher certification. See Advisor*.

4 – Guitar Option Courses – 10 hours
MUSI 1183 Voice Class (Applied Voice may be substituted)
MUSI 1188 Percussion Class
MUSI 1189 Strings Class I (Applied Violin may be substituted)
MUSI 2189 Strings Class II (Applied Cello may be substituted)
MUSI 3380 Music Pedagogy
MUEN 1137/3137 Guitar Ensemble (3 core ensemble)
Must be enrolled in Guitar Ensemble (core ensemble) and an elective ensemble each semester.

5 – Additional Requirements – 3 hours (†)
EDLI 4351 Content Area Literacy (†)

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

£ Maintain a minimum of 2.50 GPA with no grade lower than a C.
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.

MUSIC – INSTRUMENTAL - EC- 12th GRADE TEACHING

BM.INST.EC-12
2010 – 2011

Bachelor of Music

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

The program is designed to train students for future careers teaching music at the elementary, middle school, and high school levels, specifically in instrumental music. Studies in instrumental techniques form the foundation of the degree; musicianship, music theory, aural skills, and conducting are also key areas of focus. Students in this program develop facility in public speaking, musical performance, and analytical skills

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music – Instrumental (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication
- FREN 1311 Elementary French
- GERM 1311 Elementary German

50 – Visual and Performing Arts
- MUSI 1308 Music Literature and History I

090 – Institutionally Designated Option (‡)
- *SPCH 1315 Applied Communication is strongly recommended.*
- *Minimum grade of B or better is required for admission into the Teacher Certification program.*

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours (†)
- EDUC 1301 Introduction to the Teaching Profession (†)
- EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 18 hours (†, £)
- EDUCU 2303 Technology in Education (†, £) (Music Education Majors should contact advisor)
- EDSC / EDCI 4322 Human Development and Instruction (†, £)
- EDSC 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £) (Music Education Majors should contact advisor)
- EDSC / EDCI 4325 Implementing Resp. Instr. & Assess. (†, £) (Music Education Majors should contact advisor)
- EDCI 4311 Student Teaching EC-6th (†, £)
- EDSC 4398 Student Teaching All Level (†, £)

3 – Core Courses for the Major – 41 hours
- MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
- MUSI 1211/1111 Music Theory I (†)
- MUSI 1212/1112 Music Theory II (†)
- MUSI 2211/2111 Music Theory III (†)
- MUSI 2212/2112 Music Theory IV (†)
- MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
- MUSI 3289 Introduction to Conducting (†)
- MUSI 3307 Secondary instrumental Techniques
- MUSI 3308 Music History II
- MUSI 3309 Music History III
- MUSI 3312 Counterpoint and Analysis
- MUSI 4289 Advanced Conducting
- MUSI 4301 Senior Experience in Music
- MUAP 1187 (†), 1188 (†), 2187 (†), 2188 (†), 3101 (†), 3102 (†), 4101 (†) (Student must pass a sophomore recital before enrolling in MUAP 3301). Student must pass a junior/senior recital before enrolling EDCI 4311 and EDSC 4398.
- *MUSI 3304 Elem. Music Tech., MUSI 3306 Sec. Chor. Tech., and MUSI 4211 Computer App. * Recommended for teacher certification. See Advisor*.

4 – Instrumental Option Courses – 10 hours
- MUSI 1188 Percussion Class
- MUSI 1189 Strings Class I (Applied Violin may be substituted)
- MUSI 1168 Brass Class I
- MUSI 2168 Brass Class II
- MUSI 1166 Woodwind Class I
- MUSI 2166 Woodwind Class II
- Choose 4 hours of MUEN Ensembles *Must be enrolled in core ensemble and an elective ensemble each semester.

5 – Additional Requirements – 3 hours (†)
- EDLI 4351 Content Area Literacy (†)

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

£ Maintain a minimum of 2.50 GPA with no grade lower than a C.
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.

MUSIC – KEYBOARD - EC – 12th GRADE TEACHING

BM.KEYB.EC-12
2010 – 2011

Bachelor of Music

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

The program is designed to train students for future careers teaching music at the elementary, middle, school, and high school levels, specifically in choral music and class piano. Studies in piano technique form the foundation of the degree; musicianship, music theory, aural skills, and conducting are also key areas of focus. Students in this program develop facility in public speaking and musical performance, analytical skills, and competence in several languages.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music – Keyboard (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication
FREN 1311 Elementary French
GERM 1311 Elementary German

050 – Visual and Performing Arts
MUSI 1308 Music Literature and History I

090 – Institutionally Designated Option (‡)
SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours (†)
EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 18 hours (†, £)
EDUCU 2303 Technology in Education (†, £) (Music Education Majors should contact advisor)
EDSC / EDCI 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £) (Music Education Majors should contact advisor)
EDSC / EDCI 4325 Implementing Resp. Instr. & Assess. (†, £) (Music Education Majors should contact advisor)
EDCI 4311 Student Teaching EC-6th (†, £)
EDSC 4398 Student Teaching All Level (†, £)

3 – Core Courses for the Major – 41 hours
MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3307 Secondary Instrumental Techniques
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1187 (†), 1188 (†), 2187 (†), 2188 (†), 3101 (†), 3102 (†), 4101 (†) (Student must pass a sophomore recital before enrolling in MUAP 3301).
Student must pass a junior/senior recital before enrolling EDCI 4311 and EDSC 4398.
*MUSI 3304 Elem. Music Tech., MUSI 3306 Sec. Chor. Tech., and MUSI 4211 Computer App. * Recommended for teacher certification. See Advisor.*

4 – Keyboard Option Courses – 10 hours
MUSI 3370 Topics in Music Literature
MUSI 3380 Music Pedagogy
MUEN 1142/3142 Accompanying (4 core ensembles)
Choose MUEN Secondary Ensembles *Must be enrolled in core ensemble and an elective ensemble each semester.

5 – Additional Requirements – 3 hours (†)
EDLI 4351 Content Area Literacy (†)

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

£ Maintain a minimum of 2.50 GPA with no grade lower than a C.
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.

Source: Academic Advising Center
academicadvising@utb.edu

Program Rev. Date: 1-07-10
Catalog Date: 5-12-10

MUSIC – VOCAL - EC- 12th GRADE TEACHING

BM.VOCAL.EC-12
2010 – 2011

Bachelor of Music

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

The program is designed to train students for future careers teaching music at the elementary, middle school, and high school level, specifically in choral music. Studies in classical vocal technique form the foundation of the degree; musicianship, music theory, aural skills, and conducting are also key areas of focus. Students in this program develop facility in public speaking and musical performance, analytical skills and competence in several languages.

GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Music – Vocal (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

FREN 1311 Elementary French
GERM 1311 Elementary German

050 – Visual and Performing Arts

MUSI 1308 Music Literature and History I

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended.
Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – MAJOR REQUIREMENTS

1 – Prerequisites for Admission to Teacher Education– 6 hours (†)

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 18 hours (†, £)

EDUCU 2303 Technology in Education (†, £) (Music Education Majors should contact advisor)
EDSC / EDCI 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Stud. Lear. (†, £) (Music Education Majors should contact advisor)
EDSC / EDCI 4325 Implementing Resp. Instr. & Assess. (†, £) (Music Education Majors should contact advisor)
EDCI 4311 Student Teaching EC-6th (†, £)
EDSC 4398 Student Teaching All Level (†, £)

3 – Core Courses for the Major – 41 hours

MUSI 1181 Piano Class *(Student must continue to register for this class until Music Dept. piano proficiency is passed).
MUSI 1211/1111 Music Theory I (†)
MUSI 1212/1112 Music Theory II (†)
MUSI 2211/2111 Music Theory III (†)
MUSI 2212/2112 Music Theory IV (†)
MUSI 3211 Orchestration and Arranging * (†) (Student must pass an aural skills and piano prof. exam before enrolling in MUSI 3211).
MUSI 3289 Introduction to Conducting (†)
MUSI 3307 Secondary instrumental Techniques
MUSI 3308 Music History II
MUSI 3309 Music History III
MUSI 3312 Counterpoint and Analysis
MUSI 4289 Advanced Conducting
MUSI 4301 Senior Experience in Music
MUAP 1187 (†), 1188 (†), 2187 (†), 2188 (†), 3101 (†), 3102 (†), 4101 (†) (Student must pass a sophomore recital before enrolling in MUAP 3301). Student must pass a junior/senior recital before enrolling EDCI 4311 and EDSC 4398.
*MUSI 3304 Elem. Music Tech., MUSI 3306 Sec. Chor. Tech., and MUSI 4211 Computer App. * Recommended for teacher certification. See Advisor*.

4 – Vocal Option Courses – 10 hours

MUSI 1162 Diction I
MUSI 1165 Diction II
MUSI 3380 Music Pedagogy
Choose 5 hours of MUEN Ensembles *Must be enrolled in core ensemble and an elective ensemble each semester.

5 – Additional Requirements – 3 hours (†)

EDLI 4351 Content Area Literacy (†)

TOTAL CREDIT HOURS FOR GRADUATION – 126
TOTAL ADVANCED HOURS (minimum) - 36

£ Maintain a minimum of 2.50 GPA with no grade lower than a C.
† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.

SPANISH – EC – 12th GRADE TEACHING

BA.SPAN.EC-12
2010 – 2011

Bachelor of Arts

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE
COLLEGE OF LIBERAL ARTS

Teacher Certification

*In addition to **Education** (Public and Private K-12 Schools, Student Exchange Programs, Corporate Programs for Foreign Transfers), a student with a BA degree in Spanish EC-12 may consider work in the following areas: **Government** (Armed Forces, Department of Justice, Immigration & Naturalization Service), **Non-Profit Organizations** (Civic Organizations, International Exchange Programs, Social Work and Social Services), **Commerce** (Customer Service, Translation and Interpretation, Research, Marketing Firms), **Travel and Tourism** (Airlines and Airports, Travel Agencies, Convention Centers), **Arts Media & Entertainment** (Advertising, Foreign News Agencies, Museums) or **Public Service** (Civil Service, International Service Organizations, Social and Rehab Services).*

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GENERAL EDUCATION CORE COURSES REQUIRED FOR THE MAJOR

Students seeking the Bachelor of Arts in Spanish (Teacher Certification) must fulfill the General Education Core requirements in the same manner as other students. The courses listed below satisfy both degree requirements and General Education core requirements. For any additional degree requirements, please contact the Academic Advising Center.

011 – Additional Communication

SPAN 2321 Hispanic Language & Culture I
SPAN 2322 Hispanic Language & Culture II

090 – Institutionally Designated Option (‡)

SPCH 1315 Applied Communication is strongly recommended. Minimum grade of B or better is required for admission into the Teacher Certification program.

A – GENERAL EDUCATION CORE – 48 HOURS

B – REQUIREMENTS

1 –Prerequisites for Admission to Teacher Education – 6 hours

EDUC 1301 Introduction to the Teaching Profession (†)
EDUC 2301 Introduction to Special Programs (†)

2 – Pedagogy & Professional Responsibility – 18 hours (£)

EDUCU 2303 Technology in Education (†, £)
EDSC 4322 Human Development and Instruction (†, £)
EDSC 4324 Designing Inst. & Assess to Promote Stud. Learn. (†, £)
EDSC 4325 Implementing Responsive Instr. & Assess. (†, £)
EDCI 4311 Student Teaching – EC – 6th (†, £)
EDSC 4398 Student Teaching - All Level (†, £)

3 – Core Courses for the Major – 33 hours

SPAN 3301 Spanish Literature (1100 - 1750)
SPAN 3302 Spanish Literature (1750 - present) ***or*** SPAN 4309 Contemporary Spanish Literature
SPAN 3303 Advanced Spanish Composition
SPAN 3310 Masterpieces of Spanish American Literature I
SPAN 3311 Masterpieces of Spanish American Literature II
SPAN 3330 Spanish Grammar
SPAN 4310 Spanish Phonology and Phonetics ***or*** SPAN 4317 Spanish Language in Social Context
SPAN 4312 Structure of the Spanish Language
SPAN 4368 Children's Literature in Spanish
SPAN 4371 Chicano Narrative

Select 3 hours from the following list:

SPAN 3340 The Hispanic World
SPAN 4303 Hispanic Civilization
SPAN 4373 Topic Studies in Hispanic Culture

C – SUPPORT AREA AND/OR MINOR AND/OR ELECTIVES - 18 HOURS

D – ADDITIONAL REQUIREMENTS – 3 HOURS (£)

EDLI 4351 Content Area Literacy

TOTAL CREDIT HOURS FOR GRADUATION - 126
TOTAL ADVANCED HOURS (minimum) - 36

† Grade of "C" or better is required for graduation.
‡ Grade of "B" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with no grade lower than a C.
Student must meet all Program Admission Requirements/Student Teaching Rqmts. Contact College of Education for further information.

2010 - 2011 MINORS

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHMOST COLLEGE

ART	**30 Hrs.**
ARTS 1303 Art History Survey I	3
ARTS 1304 Art History Survey II	3
ARTS 1311 Two-dimensional Design	3
ARTS 1312 Three-dimensional Design	3
ARTS 1316 Drawing I	3
ARTS 1317 Drawing II	3
3 hours : Choose from ARTS 2313, 2316, 2326, 2333, ***or*** 2346	3
9 hrs of Upper Div. Art History/Studio	
ARTS (Adv. Elective 3000/4000)	3
ARTS (Adv. Elective 3000/4000)	3
ARTS (Adv. Elective 3000/4000)	3

ART HISTORY	**18 Hrs.**
ARTS 1303 Art History Survey I	3
ARTS 1304 Art History Survey II	3
12 hours of Upper Division Art History	
ARTS 4390 Topics in Art History	3
ARTS (Adv. Elective 3000/4000)	3
ARTS (Adv. Elective 3000/4000)	3
ARTS (Adv. Elective 3000/4000)	3

BUSINESS ADMINISTRATION	**18 Hrs.**
BUSI 1301 Intro to Business	3
ACCT 2301 Prin. of Accounting I	3
ECON 2301 Macroeconomics ***or***	
ECON 2302 Microeconomics	3
MANA 3361 Principles of Management	3
MARK 3371 Principles of Marketing	3
Any Adv. Business Elective 3000/4000	3

FRENCH	**21 Hrs**
FREN 1311 Elementary French I	3
FREN 1312 Elementary French II	3
FREN 2311 Intermediate French I } **or**	
FREN 2312 Intermediate French II }	
FREN 2612 Intensive Intermediate Fr. }	6
FREN 3330 Direct Fr. Translation	3
FREN 3337 Fr. Grammar & Composition	3
FREN 4330 Inverse Fr. Translation ***or***	3
FREN 4335 Topics in Fr. Lang. Cult & Tr	3

LEADERSHIP AND PERSONAL DEVELOPMENT	**18 Hrs**
ROTC 3202 Advanced Army Physical Training	2
ROTC 3401 Adaptive Tactical Leadership	4
ROTC 3402 Leadership in Changing Environments	4
ROTC 4401 Developing Adaptive Leaders	4
ROTC 4403 Leadership in a Complex World	4

SPANISH *	**18 Hrs.**
SPAN (Adv. Elective 3000/4000)	3
SPAN (Adv. Elective 3000/4000)	3
SPAN (Adv. Elective 3000/4000)	3
SPAN (Adv. Elective 3000/4000)	3
SPAN (Adv. Elective 3000/4000)	3
SPAN (Adv. Elective 3000/4000)	3

SPANISH TRANSLATION *	**18 Hrs.**
TRSP 3332 Spanish/English Trans. **Or** TRSP 3333 English/Spanish Trans.	3
TRSP 3335^ Topics in Translation	3
TRSP (Adv. Elective 3000/4000)	3
TRSP (Adv. Elective 3000/4000)	3
TRSP (Adv. Elective 3000/4000)	3
TRSP (Adv. Elective 3000/4000)	3

^ This course may be taken 3 times for credit.

*SPAN 2321 and 2322 Hispanic Language & Culture I and II are recommended as part of the General Eduation Core for Spanish and Spanish Translation Minors.

BILINGUAL PROFICIENCY CERTIFICATE

Institutional Award

Business Administration
School of Business
UTB-TSC

FIRST SEMESTER

See requirements at the School of Business

SECOND SEMESTER

See requirements at the School of Business

BORDER & TRANSNATIONAL STUDIES CERTIFICATE

Institutional Award

College of Liberal Arts
UTB-TSC

FIRST SEMESTER
HIST 2380 Mexican American History **or** SOCI 2319 Mexican American Experience
INDS 3304 Frontier Studies: The U.S. - Mexico Border

SECOND SEMESTER
Choose 6 hours of the following Upper Level electives:

ANTH 3375 Mexican American Folklore
ANTH 3301 Cultures &Communities of Latin America
ANTH 4353 Ritual, Belief, and Healing
ARTS 4354 Latin American Art and Architecture
COMM 3316 Intercultural Communication
COMM 4303 Special Topics in Communication
ENGL 4316 Mexican American Literature
GEOG 3333 Latin American Geography
GEOL 4350 Geoscience Field Excursion
GOVT 3363 American Hispanic Politics
GOVT 4376 Contemporary Issues in Homeland Security
GOVT 4369 Latin American Politics
HIST 3340 Texas History
HIST 3334 Mexico and the Borderlands Through Independence
HIST 3335 Mexico Since Independence
INDS 3303 Culture and Humanity: Human Diversity Cross Cultural Perspective
MUSI 3305 History and Style of Mariachi
SOCI 3323 Hispanics in a Global Society
SOCI 4325 Population and Migration
SPAN 3340 The Hispanic World
SPAN 4371 Chicano Narrative

THIRD SEMESTER
Choose a capstone topics course with an experiential learning component:

CRIJ 4362 Topics in Criminal Justice
GOVT 4368 Topics in American Government
HIST 4350 Topics in Latin American History
SOCI 4374 Topics in Sociology
SPAN 4373 Topics in Hispanic Culture
ARTS 4390 Topics in Arts History

TOTAL CREDIT HOURS REQUIRED TO COMPLETE PROGRAM – 15

- Topics courses may be used as electives (Courses 3-4) and repeated for credit so long as the topic is appropriate and has the director's approval.
- The "Capstone" Topics Course may be taken only once and must be taken last.
- Students wishing to culminate their studies for the Border Studies Certificate would enroll in the Topics Course designated that semester as the "Capstone Experience" course for Border Studies. The Schedule of Classes published each semester will identify the specific Topics Course designated to satisfy the requisites for the Border Studies Capstone Course. Students in the Border Studies Certificate Program should also maintain frequent contact with the Border Studies Program Director for program information and advance notice of course offerings.
- Candidates for the Border Studies Certificate must possess a 3.0 cumulative GPA in their five border studies courses to receive certification.
- Border Studies Certificates will be awarded to students who have completed all certificate program requirements AND all requirements for a Bachelors degree.

HISTORICAL BUILDING RESTORATION

Institutional Award

Industrial Technology
College of Applied Technology and General Studies
UTB-TSC

FIRST SEMESTER
CNBT 1191 Special Topics in Construction
ARCE 1191 Special Topics in Architecture
CRPT 1191 Special Topics in Carpentry
CRPT 1480 Co-Op - Carpentry

SECOND SEMESTER
MBST 1191 Special Topics in Mason & Tile Setter
CBFM 1193 Special Topics in Painter/Wall Coverer
WDWK 1191 Special Topics in Cabinet Maker
CNBT 1366 Field Experience – Construction or CNBT 1167, CNBT 2166, CNBT 2167

TOTAL CREDIT HOURS REQUIRED TO COMPLETE PROGRAM – 13

JAZZ STUDIES

Institutional Award

Fine Arts
College of Liberal Arts
UTB-TSC

FIRST SEMESTER

Jazz ensemble-choose one from:

MUSI 3136 Jazz Band or MUSI 3139 Jazz Combo
or
MUSI 2139 Latin Jazz Combo

MUSI 1114 Keyboarding Skills
MUSI 3313 Advanced Jazz Harmony

Choose two from the following:

- MUAP x2xx Applied Music
- MUSI 1263 Improvisation
- MUEN Two additional jazz ensembles (see above)
- MUSI 4211 Computer Applications

SECOND SEMESTER

Jazz ensemble-choose one from:

MUSI 3136 Jazz Band or MUSI 3139 Jazz Combo
or
MUSI 2139 Latin Jazz Combo

MUSI 1115 Keyboarding Skills II
MUSI 2310 Jazz History & Interpretation
MUSI 3310 Jazz Arranging

Choose two from the following:

- MUAP x2xx Applied Music
- MUSI 3363 Intermediate Jazz Improvisation
- MUEN Two additional jazz ensembles (see above)
- MUSI 4211 Computer Applications

TOTAL CREDIT HOURS REQUIRED TO COMPLETE PROGRAM – 21 - 22

MARIACHI STUDIES

Institutional Award

Fine Arts
College of Liberal Arts
UTB-TSC

FIRST SEMESTER

Mariachi ensemble-choose one from:
MUEN 2139 Instrumental Chamber Ensemble **or** MUEN 3139 Instrumental Chamber Ensemble
Mariachi methods-choose one from:
MUSI 1105 Basics in Mariachi Trumpet Techniques **or** MUSI 1105 Basics in Mariachi Vocal Techniques
MUSI 1105 Basics in Mariachi Strings/Arpa
MUSI 1105 Basics in Mariachi Armonia/Guitarron
MUSI 3305 History and Style of Mariachi
MUAP x2xx Applied Music
MUSI 4211 Computer Applications

SECOND SEMESTER

Mariachi ensemble-choose one from:
MUEN 2139 Instrumental Chamber Ensemble **or** MUEN 3139 Instrumental Chamber Ensemble
Mariachi methods-choose one from:
MUSI 1105 Basics in Mariachi Trumpet Techniques **or** MUSI 1105 Basics in Mariachi Vocal Techniques
MUSI 1105 Basics in Mariachi Strings/Arpa
MUSI 1105 Basics in Mariachi Armonia/Guitarron
MUSI 2310 Transcription and Transportation Techniques
MUAP x2xx Applied Music

TOTAL CREDIT HOURS REQUIRED TO COMPLETE PROGRAM – 20

FORENSIC INVESTIGATION

Institutional Award

Criminal Justice
College of Liberal Arts
UTB-TSC

Natural Science Requirement – 8 Hours

BIOL 1306/1106 General Biology I/Lab I
CHEM 1311/1111 General Chemistry I/Lab I

Law Requirement – 6 Hours

CRIJ 1310 Fundamentals of Criminal Law
CRIJU 2320 Evidence for Forensic Investigation

Forensic Investigation Requirements – 9 Hours

CRIJU 2315 Forensic Investigation I
CRIJU 2316 Forensic Investigation II
CRIJU 2330 Seminar in Forensics Investigation

Elective Requirements – 3 Hours

CRIJU 2325 Medical-Legal Forensics Investigation ***or*** ARTS 2356 Photography I

TOTAL CREDIT HOURS REQUIRED TO COMPLETE PROGRAM - 26

Course	Title	Course Description	Course Type
ABDR 1203	Vehicle Design and Structural Analysis	This course provides an introduction to the collision repair industry with emphasis on safety, professionalism, and vehicle structural design. Lec 1, Lab 3, Cr 2	Technical
ABDR 1315	Vehicle Trim and Hardware	Vehicle trim and glass service are studied in this course while utilizing tools and procedures for servicing interior and exterior trim and glass with emphasis on shop safety practices. Lec 2, Lab 2, Cr 3.	Technical
ABDR 1327	Suspension Systems	This course is a basic study of steering components and suspension systems, related tools and equipment, and individual system components while emphasizing diagnostic service on chassis, front suspension, and manual power steering systems. Lec 2, Lab 5, Cr 3.	Technical
ABDR 1331	Basic Refinishing	An introduction to terms, trade practices, hand tools, current refinishing products, shop safety, automotive refinishing equipment, and painting of trim and replacements parts are covered in this course. Lec 2, Lab 4, Cr 3	Technical
ABDR 1349	Automotive Plastic and Sheet Molded Compound Repair	This is a comprehensive course in repair of interior and exterior plastics including the use of various types of adhesives and plastic welding. Lec 2, Lab 3, Cr 3	Technical
ABDR 1419	Basic Metal Repair	Students learn metal principles and perform basic metal repair procedures and techniques while complying with personal and environmental safety practices. Lec 2, Lab 4, Cr 4	Technical
ABDR 1441	Structural Analysis and Damage Repair I	Skills development in automotive sheet metal procedures necessary to make satisfactory minor body repairs doors, hood, front-end assemblies and deck lids are emphasized in this course. Lec 2, Lab 6, Cr 4.	Technical
ABDR 1442	Structural Analysis and Damage Repair II	This course covers continuation of skill development in general repair and replacement procedures for damaged structural parts and collision damaged. Lec 2, Lab 5, Cr 4	Technical
ABDR 1455	Minor Metal Repair	Minor Metal Repair covers sheet metal alignment principles using mechanical and hydraulic equipment while emphasizing attachment devices used to straighten and align exterior body panels. Lec 2, Lab 5, Cr 4	Technical
ABDR 1458	Intermediate Refinishing	Expanded training in mixing and spraying of automotive topcoats are skills covered. Emphasis will be placed on formula ingredient, reducing, thinning, and special spraying techniques while introducing partial panel refinishing techniques and current industry paint removal techniques. Lec 2, Lab 5, Cr 4.	Technical
ABDR 1542	Structural Analysis and Damage Repair II	Continuation of general repair and replacement procedures for damaged structural parts and collision damaged. Lec 3, Lab 6, Cr 5.	Technical
ABDR 2345	Vehicle Safety Systems	Theory and operation of air bags and other passive restraint systems including automotives anti-lock systems and diagnostic methods used in the collision repair industry are covered in this course. Lec 2, Lab 5, Cr 3	Technical
ABDR 2353	Color Analysis and Paint Matching	This is an advanced course in color theory, color analysis, tinting, and advanced blending techniques for acceptable paint matching. Lec 3, Cr 3.	Technical
ABDR 2355	Collision Repair and Estimating	This is an advanced course in collision estimating and development of an accurate damage report. Lec 3, Cr 3.	Technical
ABDR 2357	Collision Repair Shop Management	Methods and equipment used in collision repair shops to improve management functions and profitability will be studied in this course. Lec 3, Cr 3	Technical
ABDR 2388	Internship- Auto Body Collision and Repair	This course is 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. Lec 192, Cr 3	Technical
ABDR 2389	Internship	This course is the second of the sequence of work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Lec 12, Cr 3.	Technical
ABDR 2402	Mechanical and Electrical Service	Topics covered are the mechanical and electrical repair, replacement, and service of collision damaged systems including drive train, cooling, exhaust, and emission control systems. Lec 2, Lab 6, Cr 4.	Technical
ABDR 2441	Major Collision Repair and Panel Replacement	This course covers instruction in preparation of vehicles for major repair processes. Lec 2, Lab 4, Cr 4.	Technical
ABDR 2449	Advanced Refinishing	Skill development in multi-stage refinishing including base coat/clear coat techniques. Further development in identification of problems and solutions in color matching and partial panel. Lec 3, Lab 2, Cr 4	Technical
ABDR 2451	Specialized Refinishing Techniques	This course covers advanced topics in specialty automotive refinishing, such as refinishing interior plastics, fiberglass, and aluminum and galvanized panels as well as custom graphics and current industry innovations. Lec 2, Lab 5, Cr 4.	Technical

ACCT 2301	Principles of Accounting I	Financial accounting applies to sole proprietorships, partnerships, and corporations. Financial accounting systems and accounting for equity rights are also covered. BBA degrees require that this course be passed with a C or better. Lec 3, Cr 3.	Academic
ACCT 2302	Principles of Accounting II	Managerial accounting includes systems, budgeting, and financial analysis quantitative techniques. Accounting for departments and branches and price level change as they affect decision-making are also covered. BBA degrees require that this course be passed with C or better. Lec 3, Cr 3.	Academic
ACCT 3321	Intermediate Accounting I	The accounting process and financial statements, present value concepts, a detailed study of current assets and current liabilities, property, plant and equipment, intangible assets. Lec 3, Cr 3.	Academic
ACCT 3322	Intermediate Accounting II	The continuing study of Intermediate Accounting I, long term liabilities, long term investments, capital structure and earnings per share, pension costs, leases, statement of charges in financial position. Lec 3, Cr 3.	Academic
ACCT 3323	Federal Income Tax	Analysis of federal tax laws is the focus of this course. Determining net taxable income and preparing income tax returns for individuals are emphasized. BBA degrees require that this course be passed with a "C" or better. Lec 3, Cr 3.	Academic
ACCT 3324	Cost Management	Basic cost accounting concepts and techniques, with an emphasis on providing information for management decision-making. Topics include job and process costing, cost-volume-profit analysis, budgeting, standard costs and variance analysis, direct costing, cost behavior and relevant costs. Lec 3, Cr 3.	Academic
ACCT 3325	Governmental and Not-For-Profit Accounting	The special features of fund accounting as applied to not-for-profit entities, municipalities, school districts and other governmental units. Lec 3, Cr 3.	Academic
ACCT 3351	Information Systems in Organizations	This course addresses issues associated with the expanding role of information systems and accounting information systems in organizations, including their development and use, strategic impact, and international implications. Lec 3, Cr 3.	Academic
ACCT 4321	Advanced Accounting	The theory and techniques of consolidated financial statements are the focus of this course. Accounting for partnerships is also covered. Lec 3, Cr 3.	Academic
ACCT 4323	Contemporary Accounting Theory	Contemporary advanced accounting and auditing theory, including controversial issues, with emphasis on income determination and asset valuation particular attention is given to current publications of professional and governmental agencies. Lec 3, Cr 3	Academic
ACCT 4324	Auditing	Auditing standards and procedures applied by public accountants and internal auditors in examining financial statements are the focus of this course including the verification of underlying data. Elements of operational and compliance auditing may be also covered. BBA degrees require that this course be passed with a "C" of better. Lec 3, Cr 3.	Academic
ACCT 4327	Advanced Managerial Accounting	Advanced cost and managerial concepts. Effects on internal reporting. Topics include evolution and development of cost accounting, cost allocations and other topics of current interest. Lec 3, Cr 3.	Academic
ACCT 4328	Seminar in Auditing	The auditing philosophy and contemporary auditing issues are examined, including research of public company (PCAOB) auditing standards and nonpublic company (AICPA) auditing standards and applicable GAAP. Governmental, not-for-profit auditing issues, and internal auditing concepts may also be covered. Lec 3, Cr 3.	Academic
ACCT 4329	Corporation and Partnership Tax	Analysis of tax laws applicable to partnerships and corporations. Federal gift, estate and inheritance taxes may also be covered. Lec 3, Cr 3.	Academic
ACCT 4331	Accounting Report Writing	An applied communication/report-writing course for accounting majors using current reporting standards. Emphasis on data accumulation, documentation, drafting and communication of different types of letters, compilation reports, internal control report, interim reports, reports to the S.E.C., proper notes to financial statements, written communication with other professional accountants, and special reports. Lec 3, Cr 3.	Academic
ACCT 4345	Accounting Internship	Supervised full-time or part-time, off campus training in public accounting, industry, or government. Oral and written required. Students must apply to program and be accepted prior to registration. May not be repeated for credit. Lec 1, Intern 20, Cr 3.	Academic

ACCT 4350	Ethics for Accountants	The principles of integrity, objectivity, independence and professionalism are examined in this introduction to ethical reasoning. This course also teaches compliance with the Rules of Professional Conduct. It is designed to satisfy the requirements of the Texas State Board of Public Accountancy for CPA exam candidates. Lec 3, Cr 3.	Academic
ACNT 1191	Special Topics in Accounting	Topics address recently identified current events, 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. Lec 1, Cr 1.	Technical
ACNT 1303	Introduction to Accounting I	This course is 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. Lec 3, Cr 3.	Technical
ACNT 1304	Introduction to Accounting II	Students will learn how to apply accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment, valuation of inventories in a manual and computerized environment. Lec 3, Cr 3.	Technical
ACNT 1311	Introduction to Computerized Accounting	This course includes an introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package. Lec 3, Cr 3.	Technical
ACNT 1313	Computerized Accounting Applications	The computer is used to develop and maintain accounting record keeping systems, make management decisions, and process common business applications with emphasis on utilizing a spreadsheet and/or data base package/program. Lec 3, Cr 3.	Technical
ACNT 1329	Payroll and Business Tax Accounting	This course includes the study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Lec 3, Cr 3.	Technical
ACNT 1331	Federal Income Tax: Individual	This course includes the study of the laws currently implemented by the IRS. Students will gain a working knowledge of preparing taxes for the individual. Lec 3, Cr 3.	Technical
ACNT 2302	Accounting Capstone	This capstone course provides a learning experience that allows students to apply a broad knowledge of the accounting profession through discipline specific projects involving the integration of individuals and teams performing activities to simulate workplace situations. A grade of "C" or better is required for graduation. Lec 3, Cr 3.	Technical
ACNT 2380	Coop Education- Accounting	This course offers 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. Lec 1, Lab 20, Cr 3.	Technical
ALAW 3307	Civil Litigation Advanced	This course will cover the research, analysis and preparation of documents necessary in civil litigation including pleadings, discovery, motions, responses, and judgments. Lec 48, Cr 3.	Academic
ALAW 3312	Evidence	This course will cover the techniques, rules and methods applied to the acquisition, admissibility and use of evidence including drafting motions in the context of evidentiary situations. Lec 3, Cr 3.	Academic
ALAW 3315	Criminal Law and Procedure - Advanced	This course will focus on the research and writing of constitutional and legal criminal law issues. The class will cover the critical analysis of legal issues as they relate to the criminal prosecution and defense and will include issues spotting, legal research, and synthesizing of the issue and research. Lec 3, Cr 3.	Academic
ALAW 4301	Legal Research and Writing	This course will focus on the research and analysis of legal problems and drafting effective communication of that analysis through drafting legal documents such as memoranda, letters, motions, briefs, and responses and the writing style of presenting legal authority. Lec 3, Cr 3.	Academic
ALAW 4310	Appeals and Brief Writing	This course will focus on the development of advanced legal writing skills through preparation of appellate briefs. Lec 3, Cr 3.	Academic
ALAW 4368	Pre-Law Academy	This course is a preparatory course for students interested in becoming an attorney. Topics include an overview of the law and legal profession, preparation for law school application and Law School Admission Test, and introduction to the law school experience. Lec 3, Cr 3.	Academic
ANTH 2301	Physical Anthropology	Human evolution, race, heredity, the organic basis of culture history through Paleolithic period. Lec 3, Cr 3.	Academic

ANTH 2351	Cultural Anthropology	Key concepts, methods and theory in the study of cultural diversity, social institutions, linguistics of culture change among world peoples. Lec 3, Cr 3.	Academic
ANTH 3301	Cultures and Communities of Latin America	This class examines contemporary communities in Latin American with special emphasis on Mexico and Guatemala. The class is designed to integrate theory and case studies to provide the student an overview of regional socio-cultural processes. Lec 3, Cr 3.	Academic
ANTH 3335	Anthropological Theory	This course examines anthropological theory. The course provides critical analysis of the epistemological foundations of anthropological thinking and surveys major theoretical orientations. Lec 3, Cr 3.	Academic
ANTH 3374	Religion in Society	This course surveys both classical and newer approaches to the social scientific study of religion. The course is designed to give students in the social sciences a thorough understanding of the leading approaches to religion. Lec 3, Cr 3.	Academic
ANTH 3375	Mexican American Folklore	A survey of general introductory topics in folklore as applied to the Hispanic American population of the American Southwest and Northern Mexico. Topics include myth, tale, folk medicine, song, dance, as well as discussion of the Material culture. Lec 3, Cr 3.	Academic
ANTH 4353	Ritual, Belief, and Healing	An examination of how ritual and belief systems create alternative healing systems with a focus on the U.S. Mexico border and curanderismo. Lec 3, Cr 3.	Academic
ANTH 4369	Archeology of Mexico and Central America	A survey of the major archeological sites and the theories concerning the pre-Colombian societies of Meso-America. Lec 3, Cr 3.	Academic
ANTH 4383	Independent Study	This course provides students with an opportunity to engage in study of anthropological subjects that may not otherwise be available in regular course offerings. Lec 3, Cr 3.	Academic
APBT 3309	Workforce Ethics	This course is an introduction of ethical theory and the analysis of social and professional issues from various ethical perspectives. Lec 3, Cr 3.	Academic
APBT 3312	Administrative Office Management	This course relates to the study of administrative office management, the management of human resources and administrative services, the implementation of electronic office systems, and the controlling of administrative service. Case studies and projects are used to develop decision-making and supervisory skills. Lec 3, Cr 3.	Academic
APBT 3314	Employment Services	This course relates to the study of employment services as a foundation in human resources and customer relations. This course teaches an overview of the human resource function and customer service principles. Emphasis will be two fold: on developing techniques to gain customer commitment and exploration of various training and development techniques. Lec 3. Cr 3.	Academic
APBT 3322	Information and Technology in Organizations	This course discusses the fundamental and use of computer networks, terminology, principles, and procedures related to the computer and information technology as it applies to the business office. Topics of e-commerce, online business, principles, and procedures related to confidentiality, security, and data integrity associated with the use of the computer in a business. Lec 3, Cr 3.	Academic
APBT 3335	Applied Organizational Communication	This course a systems approach to information processing, and the practical and psychological aspects of formal and informal communication in organizations, inter- and intra-personal communication related to various corporate cultures. Intercultural difference in various communication scenarios. Lec 3, Cr 3.	Academic
APBT 4380	Leadership Foundations	This course relates to the basic knowledge managers need to effectively lead employees. Includes primary measures of performance success, leadership strategies, core leadership actions, and comprehensive theory that explains how the strategies and actions cause positive attitudes and increased performance. Lec 3, Cr 3.	Academic
APBT 4391	Current Issues in Applied Technology	This course discusses and examines current issues facing businesses in the applied technology area. Unique characteristics of managing and exploiting information technology, communication and administration of an organization operating in a global, networked environment. Lec 3, Cr 3.	Academic
ARAB 1311	Elementary Arabic I	This course is a study of fundamental skills in listening comprehension, speaking, reading, and writing. It includes basic vocabulary, grammatical structures, and culture. Lec 3, Cr 3.	Academic
ARAB 1312	Elementary Arabic II	This course is the second of two basic courses in the Arabic language. It is a continuation of the study of fundamental skills in listening comprehension, speaking, reading, and writing, including basic vocabulary, grammatical structures, and culture. Lec 3, Cr 3.	Academic

ARCE 1191	Special Topics in Architecture	Course topic address recently identified current events, skills, knowledges, 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. Lec 1, Cr 1.	Technical
ARCE 1352	Structural Detailing	Topics include 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 AISC and the ACI. Lec 2. Lab 3, Cr 3	Technical
ARCH 1301	History of Architecture I	This course is a survey of architecture, and arts from prehistoric times to the 14th Century with an emphasis on the relationship of culture, geography, environment, and materials to the methods of construction. Lec 3, Cr 3.	Academic
ARCH 1302	History in Architecture II	This course is a survey of painting, sculpture, architecture, and minor arts from 14th century to the present with an emphasis on the development of World Architecture from European Enlightenment to the present. Lec 3, Cr 3.	Academic
ARCH 1311	Architecture and Society	This course is an introduction to architecture. It provides general exploration of architectural canons and traditions. Emphasis is placed on the relationships between architecture and societal and environmental contexts. Lec 3, Cr 3.	Academic
ARCH 1403	Architecture Design Studio I	This course introduces the principles and methods used at various stages of design analysis and synthesis processes. Emphasis is placed on the visual characteristics of two- and three-dimensional forms and spaces. Lec 3, Lab 6, Cr 3.	Academic
ARCH 1404	Architectural Design Studio II	This course introduces the design skills that are core and internal to architecture. Emphasis is placed on a systematic approach to architectural design. Lec 3, Lab 6, Cr 3.	Academic
ARCH 1415	Architectural Computer Graphics	This course introduces basic computer-aided drafting. Emphasis is placed on drawing setup! creating and modifying geometry! storing and retrieving predefined shapes! placing, rotating, and scaling objects, adding text and dimensions! using layers and coordinate systems! and input and output devices. Lec 3, Cr 3.	Academic
ARCH 2301	Architectural Freehand Drawing I	This course investigates various media and drawing techniques, including descriptive and expressive possibilities. This course also introduces the principles of axonometric and perspective drawings. Lec 2, Lab 4, Cr 3.	Academic
ARCH 2302	Architectural Freehand Drawing II	This course instructs students in architectural drafting techniques and applications with emphasis on shades, shadows and perspective drawing. Lec 2, Lab 4, Cr 3.	Academic
ARCH 2312	Architectural Technology I	This course introduces students to construction materials, methods, and their applications with an emphasis common building material: woods, masonry, concrete and metals. The course also introduces building envelope performance and issues of sustainability. Lec 3, Cr 3.	Academic
ARCH 2313	Architectural Technology II	This course introduces students to the mechanical and electrical systems and their relationship to the structural system of a building. Lec 3, Cr 3.	Academic
ARTS 1301	Art Appreciation	An introduction to creative art, relationship of line, mass, color, texture. A survey of the history and philosophy of art and architecture in the Western World. Lec 3, Cr 3.	Academic
ARTS 1303	Art History Survey I	Art History Survey I is a survey of painting, sculpture, architecture, and the minor arts from prehistoric times to the 14th century. Lec 3, Cr 3.	Academic
ARTS 1304	Art History Survey II	Art History Survey II is a survey of painting, sculpture, architecture, and minor arts from the 14th century to the present. Lec 3, Cr 3.	Academic
ARTS 1311	Two Dimensional Design	Principles of design and development of design structure on two dimensional surfaces. Lec 3, Lab 3, Cr 3.	Academic
ARTS 1312	Three Dimensional Design	This course investigates the art elements and principles of design applied to three dimensional surfaces. Lec 3, Lab 3, Cr 3.	Academic
ARTS 1316	Drawing I	The investigation of drawing media and techniques, including descriptive and expressive possibilities. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 1317	Drawing II	Drawing II is a continuation of Drawing I with an emphasis on forms of expression that represent the human figure. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2233	Drawing III	A continuation of Drawing II, but with an even greater emphasis on the human figure. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2313	Computer Imaging I	Computer Imaging I is an introductory studio art course that explores the potential of computer hardware and software as a medium for visual, conceptual and practical uses in the visual arts. Lec 3, Lab 4, Ind 3, Cr 3.	Academic

ARTS 2314	Computer Imaging II	This course is a continuation of Computer Imaging I, but with a greater emphasis on the creation of fine art digital manipulation and computer graphics. Lec 3, Cr 3.	Academic
ARTS 2316	Painting I	Painting I is a studio course that explores ideas using painting media and techniques. Lec 3, Cr 3.	Academic
ARTS 2317	Painting II	Painting II is a continuation of Painting I with an emphasis on special problems determined by the student in cooperation with the instructor. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2326	Sculpture I	This course investigates the use of materials such as clay, stone, wood and plaster to create three dimensional sculptures. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2327	Sculpture II	Sculpture II is a continuation of Sculpture I, but with a greater emphasis on aiding the student in solving individual problems using sculpture media and techniques. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2333	Printmaking I	Printmaking I is a studio art class which explores visual expression and ideas using printmaking processes. Lec 3, Cr 3.	Academic
ARTS 2334	Printmaking II	Printmaking II is a continuation of Printmaking I. Students will explore a variety of printmaking processes. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2346	Ceramics I	This course investigates the basic ceramic processes of hand building, throwing, glazing, and the firing of clay. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2347	Ceramics II	Ceramics II is a continuation of Ceramics I with an emphasis on glaze formulation. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2356	Photography I	Study of fundamental lighting, posing, camera techniques, composition, processing and printing relating to all shooting with special emphasis on portraits and still life. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 2357	Photography II	Photography II is a continuation of Photography I with an emphasis on extending the students' knowledge of techniques and guides them in developing personal outlooks toward specific applications of the photographic process. Lec 3, Cr 3.	Academic
ARTS 3303	Italian Renaissance 1400-1650	This course will study the major artists of the Italian Renaissance and will focus on the development of NeoClassicism and NeoPlatonicism. Lec 3, Cr 3.	Academic
ARTS 3314	Individual Problems	Individual problems is a studio art class which allows the student to work on advanced individual projects to be completed under faculty supervision on a one-to-one basis. This course may be taken for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 3321	Advanced Painting	Advanced Painting is a studio art class where students undertake advanced problems in painting. This course may be taken four times for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 3323	Advanced Drawing	Advanced Drawing is an upper division studio art class in which students will investigate advanced studio problems in drawing. This course may be taken four times for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 3326	Advanced Sculpture	Advanced Sculpture is a continuation of Sculpture II but with an even greater emphasis on aiding the student in solving individual problems. This course may be taken 4 times for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 3338	Fundamentals of Creative and Critical Thinking in Art	The course offers discussion in synectics, philosophy, and analytical thinking. A topology of creative behavior development is presented along with spatial exercises. Lec 3, Cr 3.	Academic
ARTS 3340	History of Women in Art	The course "History of Women in Art" is a thematic and chronological survey of women artists, using gender theories to analyze issues concerning visual representation. Lec 3, Cr 3.	Academic
ARTS 3352	Contemporary Art History	Art history from 19th century in Europe and America to the present. Development and growth of today's arts and aesthetics. Lec 3, Cr 3.	Academic
ARTS 3371	Advanced Ceramics	Advanced Ceramics investigates the advanced studio problems in the ceramics process. This course may be taken four times for a total of 12 hours credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 3381	Art Education: Theory and Background	Students will be introduced to key figures and theories within the field and their relationship to significant developments within the art world. This course will provide students with a theoretical base for art at all levels. Lec 3, Cr 3.	Academic
ARTS 3382	19th Century European Art	European painting, sculpture and architecture as social and political events ranging from the French Revolution to 1900. This art history course covers the development of the neoclassicism, romanticism, social realism, impressionism and post impressionism and their international impact. Lec 3, Cr 3.	Academic

ARTS 3383	Art Education: Issues and Practice	This class is designed to show the students, on a practical level, how to teach in the public school setting. The student will be responsible for developing and implementing their own curriculum, designing their own syllabi and writing their own lesson plans by using a wide array of resources. Lec 3, Cr 3.	Academic
ARTS 3384	Art Education: Classroom Strategies	Students will learn various approaches for the art classroom with an overview of the various art concepts currently in practice, their ideologies, and important strengths and weaknesses. Lec 3, Cr 3.	Academic
ARTS 4301	Senior Experience in Art	Senior Experience is a capstone course for art majors. It is designed to make connections of the various elements of the arts degree program. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4331	Advanced Computer Imaging	Advanced Computer Imaging is a studio arts course that explores advanced techniques in the uses of the computer as an artistic and graphic medium. This course may be taken four times for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4334	Advanced Printmaking	This course consists of advanced studio problems in printmaking. This course may be taken four times for a total of 12 credit hours. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4337	Internship in Art Studio	Internship in Art Studio provides opportunities for students in applied learning related to visual art through local business, government, industry, or institutional organizations. Students will work under faculty direction with periodic and final written reports and a supporting portfolio. May be taken four times for a total of 12 hours of credit. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4353	American Art History	History of visual arts in the United States from the 17th century to the present, including the art of the Native Americans. Lec 3, Cr 3.	Academic
ARTS 4354	Latin American Art and Architecture	Major monuments of Latin-American art and architecture in the New World, 16th century to the present. Emphasizes post-Conquest mixtures of European and Indigenous styles during the colonial period and major developments in modern Latin American art since independence. Lec 3, Cr 3.	Academic
ARTS 4359	Advanced Photography	This course consists of advanced studio problems in photography. This course may be taken four times for a total of 12 credits. Lec 3, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4387	Far East Art History	This course explores the art and architecture of India, Japan, and China from ancient times to the early 19th century. It explores the different cultures by analyzing the impact of Brahmanism, Confucianism and Taoism in buildings, paintings, sculptures and tapestries of the Far East. Lec 3, Cr 3.	Academic
ARTS 4390	Topics in Arts History	This course is an in-depth study of specific arts historical topics that go beyond the current course offerings. The topics may vary. The course may be repeated when topic vary for the total of 6 credit hours. Lec 3, Cr 3.	Academic
ARTS 4391	Studio Art General	Advanced problems in art of the students' choice and/or internship with an art professional in the field of interest. This course may be taken four times for a total of 12 hours credit. Lec 2, Lab 4, Ind 3, Cr 3.	Academic
ARTS 4393	Senior Exhibit	This course requires an art exhibition and a written thesis from all last semester seniors. Students must complete before student teaching. Lec 2, Lab 4, Cr 4.	Academic
ARTV 1441	3-D Animation I	Three-dimensional (3-D) modeling and rendering techniques including lighting, staging, camera, and special effects while emphasizing 3-D modeling building blocks and using primitives to create simple and complex objects. Lec 3, Lab 2, Cr 4.	Technical
ARTV 1451	Digital Video	This course teaches the student how to produce and edit video and sound for multimedia or web productions with an emphasis in the capture, editing and output of video using a digital video workstation. Lec 3, Lab 2, Cr 3.	Technical
ARTV 2441	Advanced Digital Video	This course teaches advanced digital video techniques for post-production with an emphasis in integration of special effects and animation for film, video, and the Internet. New and emerging compression and video streaming technologies. Lec 3, Lab 2, Cr 4.	Technical
ARTV 2451	3-D Animation II	This course emphasizes skill development in three-dimensional modeling and rendering techniques using lightning, staging, and special effects for digital output with emphasis on the production of three-dimensional (3-D) animation as final digital outputting using modeling, rendering, and animation software. Lec 3, Lab 2, Cr 4.	Technical
AUMT 1213	Automotive Suspension and Steering	Topics covered in this course are a study of automotive suspension and steering systems, theory of wheel and tire construction, and alignment angles and procedures. Lec 1, Lab 3, Cr 2.	Technical
AUMT 1249	Automotive Electronics Theory	This course covers automotive technology including electrical principles, semiconductor and integrated circuits, digital fundamentals. Lec 1, Lab 3, Cr 2	Technical

AUMT 1253	Automotive Electrical System Theory	Automotive electrical systems including operational theory, testing and diagnosis of batteries, charging and starting are covered. Lec 1, Lab 3, Cr 2	Technical
AUMT 1257	Automotive Brake Systems Theory	Topics in this course are theory and principles related to the design, operation, and servicing of automotive braking systems. Including disc and drum-type brakes, hydraulic systems, power assist components, anti-lock brake systems and diagnosis and reconditioning procedures. Lec 1, Lab 3, Cr 2.	Technical
AUMT 1266	Practicum	Practical, general workplace training supported by an individualized learning plan developed by the employer, college and student are course components. Lec 20, Cr 2.	Technical
AUMT 1306	Automotive Engine Removal and Installation	This course covers fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Lec 2, Lab 3, Cr 3.	Technical
AUMT 1310	Automotive Brake Systems	Operation and repair of drum/disc type brake systems with emphasis on safe use of modern equipment are covered in this course. Course may be taught with manufacturer specific instructions. Lec 2, Lab 2, Cr 3	Technical
AUMT 1316	Automotive Suspension and Steering Systems	This course is a study of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures and may be taught manufacturer specific. Lec 3, Cr 3.	Technical
AUMT 1319	Automotive Engine Repair	Fundamentals of engine operation, diagnosis and repair with emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine are course topics. Course may be taught manufacturer specific. Lec 2, Lab 4, Cr 3.	Technical
AUMT 1341	Automotive Heating and Air Conditioning Theory	Course topics are theory of automotive air conditioning and heating systems with emphasis on the basic refrigeration cycle and diagnosis of system malfunctions. Lec 2, Lab 2, Cr 3.	Technical
AUMT 1345	Automotive Heating and Air Conditioning	This course emphasizes the basic refrigeration cycle and diagnosis and repair of system malfunctions and covers EPA guidelines for refrigerant handling and new refrigerant replacements. Course may be taught manufacturer specific. Lec 2, Lab 4, Cr 3	Technical
AUMT 1405	Introduction to Automotive Technology	This course is an introduction to the automotive industry including automotive history, safety practices, shop equipment and tools, vehicle operation. Lec 3, Lab 3, Cr 4	Technical
AUMT 1407	Automotive Electrical Systems	Automotive electrical systems, operational theory, testing, diagnosis, repair of batteries, charging and starting systems, electrical accessories, electrical schematic diagrams and service manuals are course topics. The course may be taught manufacturer specific. Lec 3, Lab 3, Cr 4.	Technical
AUMT 2205	Automotive Engine Theory	Topics of the course are fundamentals of engine operation and diagnosis including lubrication and cooling systems with emphasis on identification of components, measurements, inspections, and repair methods. Lec 1, Lab 3, Cr 2.	Technical
AUMT 2211	Automotive Electronic Controls	This course is a study of electric principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment applied to automotive technology and may be taught manufacturer specific. Lec 1, Lab 3, Cr 2.	Technical
AUMT 2215	Automotive Engine Performance Analysis	Course topics are operation and diagnosis of basic engine dynamics including the study of the ignition system, fuel delivery systems, and the use of engine performance diagnostic equipment. Lec 1, Lab 3, Cr 2.	Technical
AUMT 2317	Automotive Engine Perform Analysis I	Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems are course topics. Basic engine performance diagnostic equipment may be taught with manufacturer specific instructions. Lec 2, Lab 2, Cr 3	Technical
AUMT 2321	Automotive Electrical Lighting and Accessories	This course covers repair of automotive electrical subsystems, lighting, instrumentation, and accessories with emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. Course may be taught manufacturer specific. Lec 3, Cr 3	Technical
AUMT 2323	Automotive Automatic Transmission and Transaxle Theory	Automatic transmission and transaxle theory of operation, hydraulic principles, related circuits, and discussion of diagnosis and repair techniques are course topics. Lec 2, Lab 3, Cr 3.	Technical
AUMT 2325	Automotive Automatic Transmission	This course covers the diagnosis, disassembly and assembly procedures of automatic transmissions with emphasis on the use of special tools and proper repair techniques. The course may be taught manufacturer specific. Lec 2, Lab 4, Cr 3.	Technical

AUMT 2328	Automotive Service	Course topics include the mastery of automotive vehicle service and component systems repair with emphasis on mastering automotive competencies covered in related courses. Course may be taught manufacturer specific. Lec 2, Lab 4, Cr 3	Technical
AUMT 2334	Automotive Engine Performance Analysis II	This course studies diagnosis and repair of emission systems, computerized engine performance systems, advanced ignition and fuel systems, and proper use of advanced engine performance diagnostic equipment. Course may be taught manufacturer specific. Lec 2, Lab 2, Cr 3	Technical
AUMT 2388	Internship	Practicum is 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 or the employer. Lec 18, Cr 3.	Technical
AUMT 2413	Automotive Drive Train and Axles	This course is 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. Lec 3, Lab 3, Cr 4	Technical
BCIS 1305	Business Computer Applications	The main focus of this course is on business applications of software, including Word Processing, Spreadsheet, Database, Presentations, and business-oriented utilization of Personal Information Management Software. Introduction of computer terminology, hardware, operating systems and information systems relating to the business environment will also be covered. Lec 3, Cr 3.	Academic
BENG 3310	Pathways of Cellular Signaling	The course is designed for students in Bachelors of Science in Engineering Physics/Bioengineering Program. It describes major pathways of inter- and intracellular signaling, and emphasizes its biophysical aspects. Structural features of signaling components are discussed. Lec 3, Cr 3.	Academic
BENG 4120	Molecular Bioengineering Lab	Laboratory experiments in macromolecular design. Lec 3. Cr 1.	Academic
BENG 4320	Molecular Bioengineering	The course is designed for students in Bachelors of Science in Engineering Physics/Bioengineering Program. The topics include biomaterials, designing biomolecules for therapeutics and diagnostics, and advanced biomolecular assemblies. Lec 3, Cr 3.	Academic
BILS 3310	Emergent Literacy in the Bilingual Classroom (Spanish)	This course focuses on how children learn to read in the native language. Emphasis is on research-based approaches for teaching reading in bilingual classrooms. Taught in Spanish. Lec 3, Cr 3.	Academic
BILS 3312	Teaching Reading in the Bilingual Classroom (Spanish)	Students will be given the opportunity to learn the developmental process involved in biliteracy. This course focuses on methods and techniques for integrating teaching and assessing reading skills in the Spanish/English bilingual classroom. Taught in Spanish. Lec 3, Cr 3.	Academic
BILS 3314	Content Area Methodology in the Bilingual Classroom (Spanish)	This course examines reading processes across text types and subject-specific vocabulary at the EC-4 level. Students learn and practice a variety of planning, managing and learning strategies for all students including those with special needs. Taught in Spanish. Lec 3, Cr 3.	Academic
BIOL 1106	General Biology Laboratory I	Investigations related to BIOL 1306. First Semester of a laboratory required for science majors and minor, also available to the general student. Lab 3, Cr 1	Academic
BIOL 1107	General Biology Laboratory II	Investigation related to BIOL 1307. Second semester of a laboratory required for science majors and minors! also available to the general student. Lab 3, Cr 1.	Academic
BIOL 1108	Biological Concepts Laboratory I	This course covers laboratory investigations related to BIOL 1308. Lab 3, Cr 1.	Academic
BIOL 1109	Biological Concepts Laboratory II	This course covers laboratory investigations related to BIOL 1309. Lab 3, Cr 1.	Academic
BIOL 1306	General Biology I	This course will emphasize fundamental of molecular and cellular biology including the chemical basis of life, metabolism, cell structure and function, and genetics. This course is intended for science majors. Lec 3, Cr 3.	Academic
BIOL 1307	General Biology II	This course is a comparative study of form and function in animals including a survey of animal diversity and general principles of physiological mechanisms. Other topics to be discussed include general ecology and conservation biology. Lec 3, Cr 3.	Academic
BIOL 1308	Biological Concepts I	This introductory course is designed to provide non-science majors a conceptual approach to topics ranging from molecular and cellular biology, to genetics, and biotechnology as they relate to current events, cultural and societal issues. Lec 3, Cr 3.	Academic
BIOL 1309	Biological Concepts II	This introductory course is designed to provide non-science majors a conceptual approach to topics ranging from evolution biodiversity, ecology, to conservation biology as they relate to current events, cultural and societal issues. Lec 3, Cr 3.	Academic

BIOL 1322	Human Nutrition	A study of the basic principles of nutrition in health and disease. Stresses the modern concept of an adequate diet based on the nutritional needs of the individual. Lec 3, Cr 3.	Academic
BIOL 2101	Human Anatomy and Physiology Laboratory I	Cells, tissues, skeletal ,muscle, nervous systems. Includes dissections and instrumentation related to basic hands-on understanding of human anatomy and physiology. Lab 3, Cr 1.	Academic
BIOL 2102	Human Anatomy and Physiology Lab II	Emphasis on endocrine cardiovascular, respiratory, digestive, urinary, and reproductive systems. Includes related dissections and instrumentation design to facilitate basic hands-on understanding of human anatomy and physiology. Lab 3, Cr 1.	Academic
BIOL 2121	Microbiology Laboratory	Laboratory application microbial techniques including staining, microscopy, cultivation of microbes, and handling of aseptic cultures and materials in the laboratory, biochemical aspects of microbes, chemical, physical and chemotherapeutic control of microbial growth, sanitary analysis of municipal water systems, determination of a bacterial unknown. Lab 4, Cr 1.	Academic
BIOL 2143	General Biology Laboratory III	This course covers laboratory investigations related to BIOL 2343. Lab 3, Cr 3.	Academic
BIOL 2301	Human Anatomy and Physiology I	General biological principles, cellular biology, emphasis on human integumentary, skeletal, muscular, and nervous systems and related topics. Lec 3, Cr 3.	Academic
BIOL 2302	Human Anatomy and Physiology II	Continuation of BIOL 2301, Includes human urogenital circulatory, respiratory, digestive and endocrine systems, human development! emphasis on nutrition, metabolism, electrolytic and fluid balance. Lec 3, Cr 3.	Academic
BIOL 2321	Microbiology	An introduction to the field of microbiology, microbial morphology, cell fine structure, factors controlling growth and reproduction, microbial survey plus viruses, metabolism, microbial genetics, biotechnology, genetic control of microbes, resistance and infection, immunology! transmission of diseases, environmental and applied microbiology. Lec 3, Cr 3.	Academic
BIOL 2343	General Biology III	This course is a comparative study of form and function in protists, fungi, and plants including a survey of diversity, physiology, reproduction and development. Other topics to be discussed include the origin and diversification of life, population genetics, taxonomy, and systematics. Lec 3, Cr 3.	Academic
BIOL 2428	Comparative Vertebrate Anatomy	Brief survey of chordates, summary of vertebrate history and development, the development and morphology of vertebrate organ systems! dissection of representative vertebrates. (Primarily for biology major and minors.) Lec 3, Lab 4, Cr 4.	Academic
BIOL 3101	Advanced Physiology Laboratory	Laboratory practice in mammalian physiology, primarily man, which include nervous, muscular, cardiovascular, endocrine, immunity, respiratory, digestive, metabolic, urinary, acid-base balance, and reproductive systems. Lab 3, Cr 1.	Academic
BIOL 3102	Comparative Animal Physiology Laboratory	Laboratory investigations of the diversity of physiological processes employed by a wide variety of animal groups. Lab 3, Cr 1.	Academic
BIOL 3103	Genetics Laboratory	This is the genetics laboratory that emphasizes the concepts of modern molecular genetics. Lec 3, Cr 1.	Academic
BIOL 3108	Plant Morphology Laboratory	This is a laboratory emphasizing the study of the morphology development and relationships of fungi, algae, liverworts, mosses, ferns, gymnosperms and angiosperms. Lab 3, Cr 1.	Academic
BIOL 3109	Ecology Laboratory	This is a laboratory for ecology which covers the study of the basic environmental factors affecting plants and animals, and their relation to economic and conservation problems. Lab 3, Cr 1.	Academic
BIOL 3112	Cell and Molecular Biology Laboratory	This is a laboratory study of cell and molecular structure and function with emphasis on bioenergetics, membranes, genes, and genetic control, cell division and its regulation, cellular differentiation. Biochemistry I is highly recommended before taking this course. Lab 3, Cr 1.	Academic
BIOL 3114	Invertebrate Zoology Laboratory	This is a laboratory study of the comparative morphology, evolution, systematic, and natural history of the invertebrates. Lab 3, Cr 1.	Academic
BIOL 3301	Advanced Physiology	Selective topics of mammalian physiology, primarily man, which include nervous, muscular, cardiovascular, endocrine, immunity, respiratory, digestive, metabolic, urinary, acid-base balance, and reproductive. Lec 3, Cr 3.	Academic
BIOL 3303	Genetics	This course is an introduction to genetics with consideration of its application in plant and animal biology and human welfare. Lec 3, Cr 3.	Academic
BIOL 3308	Plant Morphology	This course is a study of the morphology, development and relationships, of fungi, algae, liverworts , mosses, ferns, gymnosperms and angiosperms. Lec 3, Cr 3.	Academic

BIOL 3309	Ecology	This course is a study of the basic environmental factors affecting plants and animals, and their relation to economic and conservation problems. Lec 3, Cr 3.	Academic
BIOL 3312	Cell and Molecular Biology	This course is a study of cell and molecular structure and functions with emphasis on bioenergetics, membranes, genes, and genetic control, cell division and its regulation, cellular differentiation. Biochemistry I is highly recommended for this course. Lec 3, Cr 3.	Academic
BIOL 3314	Invertebrate Zoology	This is a course that covers the comparative morphology, evolution, systematic, and natural history of the invertebrates. Lec 3, Cr 3.	Academic
BIOL 3360	Introduction to Neurobiology and Behavior	This course provides an overview of the neurobiological basis of behavior- including neurophysiology, neuronal and synaptic function, developmental neurobiology, evolution of behavior, behavioral ecology, hormonal influences, navigation, sensory systems, learning, memory, and communication. Lec 3, Cr 3.	Academic
BIOL 4100	Biology Seminar	The student completes independent scholarly review of a research topic, makes an oral report on the topic, and discusses current research with faculty and students. Lec 1, Cr 1.	Academic
BIOL 4102	Marine Zoology Laboratory	This is a laboratory study of the common marine animals, especially invertebrates in local coastal waters, particular attention given to structural and physiological relationships. Lab 3, Cr 1.	Academic
BIOL 4104	Ichthyology Laboratory	This lab emphasizes field surveys, taxonomy, and the identification of local marines and freshwater fishes. Lab 3, Cr 1.	Academic
BIOL 4109	Herpetology Laboratory	The lab and field work familiarize students with herpetofauna of the lower Rio Grande Valley and with plant and animal associations in a variety of habitats. Students will be required to keep a journal of field observations and a catalog of specimens observed. The instructor will provide keys and relevant scientific journal articles. Lab 3, Cr 1.	Academic
BIOL 4110	Marine Botany Laboratory	This course is a laboratory practice emphasizing the collection, preservation and identification of common local marine flora with emphasis on the macroscopic algae forms. Field trips to local marine environments is required. Lab 3, Cr 1.	Academic
BIOL 4114	Plant Taxonomy Laboratory	This course covers the laboratory identification of vascular plants with emphasis on native flowering plants is the primary focus of this course. Lab 3, Cr 1.	Academic
BIOL 4120	Plant Anatomy Laboratory	This is a laboratory study of the anatomy of seed plants. Lab 3, Cr 1.	Academic
BIOL 4125	Plant Physiology Laboratory	This is a laboratory analysis of cell biology, biochemistry, metabolism, ecophysiology, and the development of plants. Topics included are water relations, respiration, photosynthesis, nitrogen fixation, mineral nutrition, plant molecular biology, genetic engineering, and the role of environmental signals to plant development. Lec 3, Cr 3.	Academic
BIOL 4127	Coastal Ecology Laboratory	This course is a series of laboratory and field investigations emphasizing identification, biology and ecology of local marine organisms. Lab 3, Cr 1.	Academic
BIOL 4132	Animal Behavior Laboratory	Projects introduce students to laboratory and field methods for observing, quantifying, analyzing, and reporting animal behavior. Typical research projects address: sensory mechanisms, chemical and vocal communication signals, and dynamic behavioral interactions. Lab 3, Cr 1.	Academic
BIOL 4140	Immunology Laboratory	This course covers the immune system, cell and organs of the immune system, antigens and antibodies, immunoglobulin genes, Major Histocompatibility Complex proteins, cytokines, vaccines, and infectious diseases. Biochemistry I is highly recommended for this course. Lab 3, Cr 1.	Academic
BIOL 4150	Ornithology Laboratory	This course is a laboratory practice concerning the field identification, classification, morphology , ecology, distribution, migration patterns, and behavior of local birds. Field trips are required. Lab 3, Cr 1.	Academic
BIOL 4170	Laboratory Topics in Biology	This course is a series of lab/field investigations in areas not available in other courses. May be repeated for credit when content changes. Lab 3, Cr 1.	Academic
BIOL 4199	Research Problems in Biology	Research under the supervision of a Biology faculty member. May be repeated for credit but no more than three semester credit hours(*) may apply to ward the Biology major. (* combinations of 4199, 4299). Lec 2, Cr 1.	Academic
BIOL 4299	Research Problems in Biology	Research under the supervision of a Biology faculty member. May be repeated for credit but no more than three semester credit hours(*) may apply toward the Biology major. (* combinations of 4199, 4299). Lec 2, Cr 2.	Academic

BIOL 4301	Evolution	This course involves the study of organic evolution with an emphasis on mechanics, especially genetics and modern theories. This course will provide a common foundation of understanding of the fundamental principles that underpin biology. Lec 3, Cr 3.	Academic
BIOL 4302	Marine Zoology	This course is a study of the common marine animals, especially invertebrates in coastal waters, particular attention is given to structural and physiological relationships. Lec 3, Cr 3.	Academic
BIOL 4304	Ichthyology	This course covers the classification, evolution, ecology, and biology of the fishes. Lec 3, Cr 3.	Academic
BIOL 4309	Herpetology	An in-depth study of amphibians and reptiles. Classification according to their types and characteristics as well as collection and field trip techniques for acquiring and preparing museum specimens and their preparation for proper storage and cataloging. A good knowledge of South Texas herpetofauna will be emphasized. Special in-depth study of venomous snakes and current snakebite treatment measures will be surveyed. Lec 3, Cr 3.	Academic
BIOL 4310	Marine Botany	This course is a study of local marine flora with emphasis on the microscopic algae forms. Lec 3, Cr 3.	Academic
BIOL 4314	Plant Taxonomy	This course deals with the identification of vascular plants with emphasis on native flowering plants. Lec 3, Cr 3.	Academic
BIOL 4320	Plant Anatomy	This course covers a study of the anatomy of seed plants. Lec 3, Cr 3.	Academic
BIOL 4325	Plant Physiology	Plant physiology is an analysis of cell biology, biochemistry, metabolism, ecophysiology, and development of plants. Topics included are water relations, respiration, photosynthesis, nitrogen fixation , mineral nutrition, plant molecular biology, genetic engineering, and the role of environmental signal to plant development. Lec 3, Cr 3.	Academic
BIOL 4327	Coastal Ecology	This course examines the major near shore habitats and communities of the western Gulf of Mexico including: beaches, sand dunes, estuaries, salt marshes, mud flats, sea grass meadows, and rocky shores. Emphasis is placed on directed, field-oriented, group and/or individual research projects. Lec 3, Cr 3.	Academic
BIOL 4330	Integrative Biology for Middle School Science Teachers	This course designed for middle school science teachers is the coordinated-thematic integration of biology with physics, chemistry, and earth/space science through a series of lectures, panels, demonstrations, and applied activities. Lec 3, Cr 3.	Academic
BIOL 4331	Integrative Biology for High School Science Teachers	This course designed for high school science teachers is the coordinated-thematic integration of biology with physics, chemistry, and earth/space science through a series of lectures, panels, demonstrations, and applied activities. Lec 3, Cr 3.	Academic
BIOL 4332	Animal Behavior	Lectures introduce students to the biological basis of animal behavior. Emphasis is placed on evolutionary explanations of: behavioral genetics and development, neural and hormonal mechanisms, instincts and learning, reproductive, and social behavior. Lec 3, Cr 3.	Academic
BIOL 4340	Immunology	This course covers the immune system, cells and organs of the immune system, antigens and antibodies, immunoglobulin genes, Major Histocompatibility Complex proteins, cytokines, vaccines, and infectious diseases. Biochemistry I is highly recommended for this course. Lec 3, Cr 3.	Academic
BIOL 4350	Ornithology	This course is a study of the classification, morphology, ecology, distribution, migration patterns , and behavior of birds. Emphasis will be mainly on local species. Field trips are required. Lec 3, Cr 3.	Academic
BIOL 4361	Neuroscience I (Cellular and Molecular)	This is a comprehensive first course in the cell and molecular neuroscience for students with biology and/or health science majors. The course offers general principles with a useful blend of data from vertebrate and invertebrate, and provides clear focus and well rounded modern knowledge. Lec 3, Cr 3.	Academic
BIOL 4362	Neuroscience II (System, Developmental, and Disorders)	This is a comprehensive course in systems, developmental, and disorders of the nervous system. Neuronal mechanisms underlying intercellular communication, learning and memory, and diseases will be taught based on the knowledge in cellular and molecular neuroscience. Lec 3, Cr 3.	Academic
BIOL 4370	Topics in Biology	This course presents specialized lecture content not available in other courses. May be repeated for credit as topics change. Lec 3, Cr 3.	Academic
BIOL 4390	Biology Internship	This course is an applied experience in an industrial, educational, private agency, or government facility supported by an acceptable scholarly written report and a seminar. Lab 6-8, Cr 3.	Academic

BIOL 4391	Biomedical Research I-Research Principles and Ethics	This course will provide students with a general understanding of issues surrounding ethical conduct in scientific research. Topics include scientific authorship, protocol for research on human subjects, mechanisms of peer review, grant application review. Students will gain ability to think about scientific conduct issues in an ethical decision-making way. Lec 3, Cr 3.	Academic
BIOL 4392	Biomedical Research II - Research Methodology	Methodologies employed in biomedical research will be discussed and explored. Topics will include formulation and testing of scientific hypotheses, experimental design, laboratory notebook maintenance, and data interpretation. Biochemical, genetic, immunohistochemical, and molecular techniques will be review. At the completion of the course students are anticipated to understand the basic methods employed in scientific research. Lec 3, Cr 3.	Academic
BIOL 4393	Biomedical Research III- Research Project	Students will be expected to design, develop, and conduct and independent research subproject in the laboratory with the guidance of a research faculty. Acquisition of experimental techniques, note keeping, safety, and appropriate laboratory conduct will be emphasized. Lec 3, Cr 3.	Academic
BIOL 4394	Biomedical Research IV- Research Presentation	The course will promote the development of presentation skills and the ability to discuss research data in scientific or public forum. Literature search, reading of research articles, and interpretation of experimental results will be emphasized. Verbal and written presentations will be expected from students for successful completion of the course. Formats utilized will be those employed at scientific meetings and required by peer-reviewed scientific journal. Literature research and presentation topics will be assigned by the instructor. Lec 3, Cr 3.	Academic
BIOL 4399	Research Problems in Biology	Research under the supervision of a Biology faculty member. May be repeated for credit but no more than three semester credit hours may apply toward the Biology major. Students enrolling for BIOL 4399 will present research results in a Department seminar. Lec 3, Cr 3.	Academic
BIOL 4415	Mammalogy	This course will examine the nomenclature and classification of major taxonomic groups of mammals. Special emphasis will be placed on evolutionary relationship and adaptations of mammals. The lab will demonstrate useful field techniques and the identification and classification of mammals from live and prepared specimens. Field trips are required. Lec 3, Lab 3, Cr 4.	Academic
BIOL 4422	Conservation Biology	This course focuses on the biological concepts important for the conservation of natural populations, communities, and ecosystems including the social, political, and economic aspects of conservation biology. Lec 3, Lab 3, Cr 4.	Academic
BLAW 3337	Business Law I	Important aspects of our legal environment include legal reasoning and the U.S. Constitution, the development of case law and precedents and the application of procedural substantive law pertaining to civil and penal matters. Specific topics covered include ethics, torts, contracts, intellectual property, agency, employment, and law for small businesses. Lec 3, Cr 3.	Academic
BLAW 3338	Business Law II	The study of business law continues with specific topics including sales and lease contracts, warranties and product liability, negotiable instruments, the banking system, creditors' right and bankruptcy, business organizations, government regulation pertaining to administrative procedures and consumer, environmental and antitrust laws, property, insurance, estate planning, professional liability, and international law. Lec 3, Cr 3.	Academic
BMGT 1301	Supervision	This course includes a study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. Lec 3, Cr 3.	Technical
BMIS 1180	Introduction to Income Tax Preparation	This course will introduce students to automated income tax preparation using Turbo Tax. Lec 1, Cr 1.	Technical
BMIS 3301	Web Programming with Java	Introductory level exposure to computer programming concepts and an overview of the uses and application of programming languages used on the Web. Students will be exposed to the nature and organization of the Internet, including the underlying infrastructure of the Web, ad distributed and multi-tiered applications. Students will be able to understand the core concepts of computer programming and write stand-alone programs and applets using the Java language. Lec 3, Cr 3.	Academic

BMIS 3302	Database Information Systems	Students will learn the basis of constructing, managing, and deploying relational databases solution in support of electronic based commerce activities. On completion of this course, participants will understand the requirements of defining and using data in relational databases, and incorporating the collection, management, and use of data as an integral part of successful e-Business endeavors. Lec 3, Cr 3.	Academic
BMIS 3303	E-Commerce Strategies	The most important elements for effective commerce through the Internet include strategies and tools within E-Commerce categories, which include Business-to-Consumer, Business-to-Business, Consumer-to-Consumer, technological infrastructure, electronic security, electronic payment mechanisms and virtual communities. Lec 3, Cr 3.	Academic
BMIS 3351	Information Systems in Organizations	The information era of today requires students be equipped with an understanding of how to effectively utilize information technologies. This course provides an overview and hands-on practice of information technology at all levels of an organization including transactional processing systems, database management, decision support systems, enterprise information systems, and e-commerce applications. Lec 3, Cr 3	Academic
BMIS 4303	Web Systems Development	This course surveys the essential elements of World Wide Web systems development as an approach. Focus is on creating professional-quality HXTML, XML, CSS, JavaScript, and server-side Web pages that can take in process, return information. Covers design features and architecture as critical components that contribute to Website success. Students will be able to design and develop their own interactive sites for the Web. Lec 3, Cr 3.	Academic
BMIS 4304	Systems Analysis E-Business	Designed for students to learn the fundamentals of e-Business infrastructure, tools, and applications! to learn Rapid Application Development (RAD) system application life cycles and be able to select an appropriate model! and to demonstrate their learning by building an e-Business site as a team. Lec 3, Cr 3.	Academic
BMISU 1185	Fundamentals of Project Management	This hands-on introductory course is designed to teach students various project management techniques including: scheduling, budgeting staffing, evaluating, prioritizing, Program Evaluation Review Technique (PERT) and GANTT Charts. The software used in this course is Microsoft Project Management. BBA degrees require that this course be passed with a "C" or better. Lec 1, Cr 1.	Academic
BMISU 1310	Data Management Tools	Students will develop core competency skills to prepare themselves for the rest of their curriculum and for their careers. Preparation in spreadsheets, relational database management systems, and elementary statistics will serve as a primer for helping students to stay up to date and to prepare for more specialized courses. Lec 3, Cr 3.	Academic
BUSI 1301	Introduction to Business	A survey of the various fields of business and their interrelationships, production and distribution systems, finance, accounting, statistics, capital, labor, marketing, taxes, governmental regulations, and other aspects of business necessary for understanding modern business enterprises and organization. BBA degrees require that this course be passed with a "C" or better. Lec 3, Cr 3.	Academic
BUSI 1307	Personal Finance	This course provides instruction in personal and family accounts, budgets and budgetary control, bank accounts, charge accounts, borrowing, investing, insurance, standards of living, renting vs. home ownership, wills and trusts. Lec 3, Cr 3.	Academic
BUSI 2301	Business Law	Principles of law which form the legal framework for business activity. Lec 3, Cr 3.	Academic
BUSI 2304	Business Report Writing and Correspondence	This course provides instruction in the development of writing and presentation skills to produce effective business communications. The students will learn to compose, produce, and present effective business documents appropriate to meet industry standards! applied critical evaluation techniques to business documents to demonstrate the importance of coherent, ethical communication principles in business and industry. Lec 3, Cr 3.	Academic
BUSI 3343	Decision Analysis	A study of regression, forecasting, and other analytical methods. The format of the course will be lectures and case studies. Students will address problems in context, determine the proper techniques, collect the information, and then solve the problem. Lec 3, Cr 3.	Academic

BUSI 4369	Business Policy	The formal strategic planning process provides a framework for this course. Students are expected to apply this process in a case analysis, with emphasis on integrating earlier studies in business. This course should be taken in the last semester prior to graduation. Lec 3, Cr 3.	Academic
BUSIU 2341	Statistics	Topics covered in introductory statistics include tabular and graphical presentation of data, measures of location, measures of variability, correlation, discrete and continuous probability distributions, sampling distributions, point estimation, interval estimation, hypothesis testing, and linear regression, with emphasis on business applications. BBA degrees require that this course be passed with a "C" or better. Lec 3, Cr 3.	Academic
CDEC 1313	Curriculum Resources for E.C. Programs	This course is composed of fundamentals of early childhood education focusing on curriculum design, developmentally appropriate practices, and types of programs, historical perspectives, ethics, and current issues from the National Association for the Education of Young Children. Lec 3, Cr 3.	Technical
CDEC 1318	Wellness of the Young Child	Fact ors impacting the well-being of young children. Includes healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content is aligned with State Board of Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 15 hours field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations. Lec 3, Cr 3.	Technical
CDEC 1319	Child Guidance	This course is an exploration of common behavior problems of young children in an early childhood setting. It puts emphasis on positive guidance techniques for effective behavior management and practical application through direct participation in an early childhood setting. Lec 2, Lab 4, Cr 3.	Technical
CDEC 1321	The Infant and Toddler	A study of appropriate infant and toddler programs (birth to 3 years), including an overview of development, quality care giving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Lec 3, Cr 3.	Technical
CDEC 1354	Child Growth and Development	This course is a study of the principles of normal child growth and development from conception to adolescence. Focus is placed on physical, cognitive, social, and emotional domains of development. Lec 3, Cr 3.	Technical
CDEC 1356	Emergent Literacy for Early Childhood	This course is an exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum. Lec 3, Cr 3.	Technical
CDEC 1358	Creative Arts for Early Childhood	This course is an exploration of principles, methods, and materials for teaching young children movement, music, visual arts, and dramatic play through the process-oriented experience to support divergent thinking. Lec 1, Lab 5, Cr 3.	Technical
CDEC 1359	Children With Special Needs	This course is a survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, educational interventions, available resources, referral processes, parental involvement and the advocacy role and legislative issues. Lec 3, Cr 3.	Technical
CDEC 1396	Special Topics in Child Care and Support Services Management	This course deals with topics addressed 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. Lec 3, Cr 3.	Technical
CDEC 2307	Math and Science for Early Childhood	This course is an exploration of principles, methods, and materials for teaching young children mathematics and science through discovery and play. Lec 1, Lab 5, Cr 3.	Technical
CDEC 2315	Diverse Cultural/ Multilingual Education	This course is an overview of multi-cultural education to include relationship with the family and community to develop awareness and sensitivity to diversity related to individual needs of children. Lec 3, Cr 3.	Technical
CDEC 2326	Administration of Programs for Children I	This course is a practical application of management procedures for early care and education programs, including a study of operations, supervising, and evaluating programs. Topics include philosophy, types of programs, policies, physical management, regulations, staffing, evaluation, and communication. Lec 3, Cr 3.	Technical
CDEC 2328	Administration of Programs for Children II	This course is an in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy professionalism, fiscal analysis and planning parental/partnership, and technical applications in process. Lec 3, Cr 3.	Technical

CDEC 2341	The School Age Child	This course is a study of appropriate age (5 to 13 years) program, including overviews of development, appropriate environments, materials and activities, and teaching/guidance techniques. Lec 3, Cr 3.	Technical
CDEC 2380	Cooperative Education- Child Care Provider/ Assistant	Career-related activities encountered in the student's area of specialization are offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and employer, the student combines classroom learning with work experience. This course includes a lecture component. Lec 1, Lab 20, Cr 3.	Technical
CDEC 2587	Internship - Early Childhood Provider/ Assistant	This course gives advanced students experience external to the college 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. Lec 1, Lab 20, Cr 5.	Technical
CETT 1321	Electronic Fabrication	Student study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Lec 2, Lab 3, Cr 3.	Technical
CETT 1409	D.C- A.C Circuits	This course encompasses the 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. Lec 3, Lab 3, Cr 4.	Technical
CETT 1425	Digital Fundamentals	This is an entry level course in digital electronics covering number systems, binary mathematics, digital codes, logic gates, Boolean algebra, Karnaugh maps, and combinational logic, with emphasis on circuit logic analysis and troubleshooting digital circuits. Lec 3, Lab 3, Cr 4	Technical
CETT 1429	Solid State Devices	A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, bitechniques, and thermal considerations of solid state devices. Lec 3, Lab 4, Cr 4.	Technical
CETT 1441	Solid State Circuits	This is a study of various semiconductor devices incorporated in circuits and their applications, with emphasis on circuit construction, measurements, and analysis. Lec 3, Lab 3, Cr 4.	Technical
CETT 1445	Microprocessor	An introductory course in microprocessor software and hardware: architecture, timing sequence, operation, and programming. Discussion of appropriate software diagnostic language and tools. Lec 3, Lab 3, Cr 4.	Technical
CETT 2435	Advanced Microprocessors	An advanced course utilizing the microprocessor in control systems and interfacing. Emphasis on microprocessor hardware and implementation of peripheral interfacing. Lec 3, Lab 4, Cr 4.	Technical
CHEM 1105	Introductory Chemistry Lab I	Laboratory practice that illustrates elementary, general, organic, and biochemical experimental techniques. Lab 3, Cr 1.	Academic
CHEM 1107	Introductory Chemistry Lab II	Continuation of CHEM 1105, with greater emphasis on organic and biochemical laboratory techniques. Lab 3, Cr 1.	Academic
CHEM 1111	General Chemistry Laboratory I	Introduction to laboratory techniques of chemical experimentation. Lab 3, Cr 1	Academic
CHEM 1112	General Chemistry Laboratory II	Introduction to some basic laboratory techniques used in studying chemical kinetics, chemical equilibrium, electrochemistry, and qualitative inorganic analysis, introduction to instruments used in pH measurement. Lab 3, Cr 1.	Academic
CHEM 1305	Introductory Chemistry I	A terminal course in chemistry for non-science majors and technology students. Major topics covered are: atomic and molecular structure, chemical bonding, the state of matter, solution calculations, and acid-base concepts! includes a brief introduction to organic chemistry and biochemistry. Lec 3, Cr 3.	Academic
CHEM 1307	Introductory Chemistry II	Continuation of CHEM 1305. Elementary study of organic and biochemistry! the nomenclature, preparation, and reactions of the principle classes of organic compounds by functional group! structures and metabolic reactions of carbohydrates, lipids, and proteins! a look at hormones, enzymes, and biosynthetic pathways, physiological action of drugs, food, nutrients, poisons, and causing agents. Lec 3, Cr 3.	Academic
CHEM 1311	General Chemistry I	A study of atomic and molecular structure, chemical stoichiometry, chemical bonding, states of matter, solutions and colloids, and acid-base concepts. Lec 3, Cr 3.	Academic
CHEM 1312	General Chemistry II	Continuation of CHEM 1311. Study of chemical kinetics, equilibrium, electron transfer reactions, electrochemistry, nuclear chemistry, chemical thermodynamics, and some descriptive inorganic chemistry. Lec 3, Cr 3.	Academic

CHEM 2123	Organic Chemistry Laboratory I	Laboratory application of techniques used in experimental organic chemistry. Lab 3, Cr 1.	Academic
CHEM 2125	Organic Chemistry Laboratory II	Additional laboratory application of techniques used in experimental organic chemistry. Lab 3, Cr 1.	Academic
CHEM 2323	Organic Chemistry I	Study of the structure, properties, preparations and reactions of aliphatic and aromatic compounds! stereo chemistry, reaction mechanisms, and the use of spectroscopic techniques are included. Lec 3, Cr 3.	Academic
CHEM 2325	Organic Chemistry II	Continuation of CHEM 2323. Includes a brief introduction to the chemistry of polymers, fats, carbohydrates, amino acids and proteins. Lec 3, Cr 3.	Academic
CHEM 3103	Biochemistry Laboratory I	Laboratory work consists of selected experiments in biochemistry with special emphasis on the chemical interpretation of the structure and function of biological macromolecules. Lab 3, Cr 1.	Academic
CHEM 3105	Analytical Laboratory	Laboratory methods in analytical chemistry, including a quantitative separation techniques, electrochemistry, and absorption spectroscopy. Lab 4, Cr 1.	Academic
CHEM 3110	Physical Chemistry Laboratory I	The use of modern instrumentation to illustrate physical chemical techniques used to study electrochemistry, molecular structure, calorimetry, and thermodynamics. Lab 3, Cr 1.	Academic
CHEM 3112	Physical Chemistry Laboratory II	The use of modern instrumentation to illustrate physical chemical techniques used to study macromolecules, chemical kinetics, properties of gases. Lab 3, Cr 1.	Academic
CHEM 3301	Inorganic Chemistry	An introductory study of the elements other than carbon and their compounds based on the periodic classification and certain related theoretical concepts explaining structure and reactivity. Lec 3, Cr 3.	Academic
CHEM 3303	Biochemistry I	Study of the chemical properties of the biomolecules, amino acids, proteins, enzymes, carbohydrates, lipids, nucleic acids, and coenzymes! metabolic energy! the biosynthesis of informational molecules, such as DNA and RNA, will also be discussed. Lec 3, Cr 3.	Academic
CHEM 3304	Biochemistry II	A detailed study of the design, integration and control of metabolism. Hormone action and the regulation of gene expression. Lec 3, Cr 3.	Academic
CHEM 3305	Analytical Chemistry	Modern analytical chemistry, including separation methods and quantitative chemistry, introduction to methods of analysis in electrochemistry, absorption and emission spectroscopy. Lec 3, Cr 3.	Academic
CHEM 3306	Chemical Literature	A course designed to provide students with a working knowledge of the chemical literature. Students will learn how to obtain information using the libraries in the university system under the supervision of a faculty member in the Chemistry and Environmental Sciences Department. Lec 3, Cr 3.	Academic
CHEM 3310	Physical Chemistry I	Study of the classical thermodynamics including applications to gases, liquids, solutions and phase equilibrium, ionic equilibrium, and electrochemist. Lec 3, Cr 3	Academic
CHEM 3312	Physical Chemistry II	Fundamentals of quantum mechanics, chemical bonding spectroscopy, photochemistry, chemical kinetics, kinetic theory of gases and the transport of both gas and liquid phases. Lec 3, Cr 3.	Academic
CHEM 4104	Selected Topics in Biochemistry Lab	This course will cover the study of contemporary biochemical techniques. Lab 3, Cr 1.	Academic
CHEM 4105	Instrumental Methods of Analysis Laboratory	Introduction to use of electrical and optical measurements in chemical analysis. Interpretation of infrared, ultraviolet, nuclear magnetic resonance, and mass spectra. Lab 4, Cr 1.	Academic
CHEM 4110	Chemistry Seminar	Students are expected to research a current chemical topic, previously approved by a faculty member in the Chemistry and Environmental Sciences Department, and to present it in a formal seminar to fellow students and faculty members. Lec 1, Cr 1.	Academic
CHEM 4112	Selected Topics in Physical Chemistry Laboratory	A laboratory course that will concentrate on applications of an initial quantum chemistry, molecular dynamics, semempirical methods, and QSPR/QSAR. Lab 3, Cr 1.	Academic
CHEM 4123	Selected Topics in Organic Laboratory	This laboratory involves a comprehensive literature survey of both contemporary and classical organic name reactions. Lab 3, Cr 1.	Academic
CHEM 4302	Advanced Inorganic Chemistry	This course is an introduction to the coordination chemistry of transition metals. Theoretical understanding of the synthesis, characterization, and applications of selected transition metal complexes, bioinorganic complexes, and organometallic compounds will be introduced. The course also introduces group theory and its application to molecules in the description of bonding. Lec 3, Cr 3.	Academic

CHEM 4304	Selected Topics in Biochemistry	An advanced course in Biochemistry with emphasis on current developments. Lec 3, Cr 3.	Academic
CHEM 4305	Instrumental Methods of Analysis	Introduction to the theory and practice of optical and electro-analytical methods of analysis. Interpretation of infrared, ultraviolet, nuclear magnetic resonance, and mass spectra. Lec 3, Cr 3.	Academic
CHEM 4306	Environmental Chemistry	This course covers environmental issues and the chemistry associated with these issues. Key areas include energy used and production, the atmosphere, the hydrosphere. Specific topics to be discussed include fossil fuels, nuclear and solar energy, the Greenhouse effect, ozone chemistry, air and water pollution, water resources, nitrogen and food production, and agrochemicals. Lec 3, Cr 3.	Academic
CHEM 4312	Selected Topics in Physical Chemistry	An advanced course in Physical Chemistry that includes topics in Computational Chemistry, Molecular Modeling, and Molecular Dynamics. Lec 3, Cr 3.	Academic
CHEM 4320	Chemistry Problems	An individual introduction to research which involves both laboratory and library work. Students will work under the direct supervision of a Chemistry faculty member on a chemistry topic of mutual interest. Lec 1, Lab 6, Cr 3.	Academic
CHEM 4323	Selected Topics in Organic Chemistry	An advanced course in Organic Chemistry which covers topics in Reaction Mechanisms, Synthesis Design and includes the theory of structure determination. Lec 3, Cr 3.	Academic
CHEM 4325	Chemistry Internship	This course is designed to give the Chemistry student the opportunity to gain insight and experience in applying chemistry principles and concepts in an actual work-related environment. The student will perform the internship under the supervision of both a chemistry faculty member and a collaborating member of the participating internship site. This course will provide opportunity for the student to apply prior learning to practical laboratory situations. Lec 1, Lab 6, Cr 3.	Academic
CHIN 1311	Beginning Chinese I	Fundamental skills in listening comprehension, speaking, reading and writing, including basic vocabulary, grammatical structures and culture. Lec 3, Cr 3.	Academic
CHIN 1312	Beginning Chinese II	Continuation of Chinese 1311. Lec 3, Cr 3.	Academic
CIST 3310	Foundations of Information Technology	This course is designed to familiarize students with skills needed in information technology. Discrete concepts are discussed and become practical when applied to the understanding of various concepts in Computer Information Technology. Lec 3, Lab 1, Cr 3.	Academic
CIST 3313	Computer Networks	Computer Networks are introduced. Topics include ISO/OSI layer models, study of LANs and standards, inter/intra-nets and networking security. Students will not receive credit for both CIST 3330 and CIST 3313 or CIST 3342. Lec 3, Cr 3.	Academic
CIST 3316	Web Programming and Design	This course focuses on web programming and the underlying Internet client server paradigm. Techniques to be studied include dynamic content with client-side and server-side scripting languages. Issues of security, session management and integration with databases are discussed in detail along with an overview of the fundamentals of e-Commerce. Lec 3, Cr 3.	Academic
CIST 3330	Networking and Database Management	This course provides detailed view of networking and database management systems. Networking topics include ISO/OSI layer models, study of LANs and standards, Internetworking, and network security. Database topics include access methods, data models, query languages and optimization, concurrency control, recovery, security, integrity, client-server architecture, and distributed database systems. Lec 3, Cr 3.	Academic
CIST 3340	Concepts and Methods of Education Technology	This course will provide an understanding of learning models and the impact of technology in enhancing in the learning process. This includes the application of teaching and learning strategies that integrate technology in the classroom environment. Lec 3, Cr 3.	Academic
CIST 3342	Database Management Systems	This course introduces database administration systems. Topics include database access methods, data models, query languages and optimization, concurrency control, recovery, security, integrity, client server architecture, and distributed database systems. Lec 3, Cr 3.	Academic
CIST 3380	Special Topics in Computer Systems	This course covers a special topic at the junior level. Different sections of the course may cover different topics in a semester. Special topics chosen will be related to new and state of the art developments in the area of computer information systems. Lec 3, Cr 3.	Academic

CIST 4310	Operating Systems Management	This course introduces applied operating system concepts. Operating System theory and application are explored using varies environments. Topics include: operating system installations, configuration and troubleshooting, process management, communication and synchronization, memory and device management, directory and file management, system administration and security including user account management. Lec 3, Cr 3.	Academic
CIST 4313	Advanced Computer Networking	This course provides computer networking topics based on the OSI seven layers. Networking topics include advanced administration techniques, advanced security, adding components, trouble-shooting techniques and network management. Students will install and administrate current networking operating systems in servers and clients in a lab environment. Lec 3, Cr 3.	Academic
CIST 4330	Computer Graphics and Digital Imaging Processing	This course covers fundamental principles of graphics and digital imaging. Topics of this course include graphics acquisition, graphics optimization, image manipulations, masking, layering, compositing, image correction techniques, and video manipulating and filtering techniques. Lec 3, Cr 3.	Academic
CIST 4342	Advanced Database Management Systems	This course provides database management topics which include relational database design, formal and commercial query models, network and hierarchical data models, and concurrency control. Lec 3, Cr 3.	Academic
CIST 4346	Systems Analysis and Design	This course provides an understanding of the system development cycle. It enables students to evaluate and choose a system development methodology. Topics include systems survey, functional specifications, interface specification, data design, program design, system testing and implementation. Lec 3, Cr 3.	Academic
CIST 4360	Advanced Computer Graphics and Digital Image Processing	This course introduces basic concepts of designing, creating, editing and manipulating the layout of photographic-quality animation sequences, professional images, and multi-media slide presentations and how to integrate them within the web environment. Image and audio formats, compression techniques and transmission techniques are also discussed. Lec 3, Cr 3.	Academic
CIST 4380	Advanced Special Topic in Computer Systems	This course covers a special topic at the senior level. Different sections of the course may cover different topics in a semester. Special topics chosen will be related to new and state of the art developments in the area of computer information systems. Lec 3, Cr 3.	Academic
CJSA 1312	Crime in America	American crime problems in historical perspective! social and public policy factors affecting crime! impact and crime trends! social characteristics of specific crimes! prevention of crime. Lec 3, Cr 3.	Technical
CJSA 1322	Introduction to Criminal Justice	History and philosophy of criminal justice and ethical considerations! crime defined! its nature and impact! overview of criminal justice system! law enforcement! court system! prosecution and defense! trail process! corrections. Lec 3, Cr 3.	Technical
CJSA 2388	Internship-Criminal Justice Studies	Provides the student with real-world experience, problem solving, and practitioner supervision in criminal justice agencies related to the interest of the student. Students are required to work for a minimum of 112 hours during the semester, must submit weekly activity logs, and meet with the intern coordinator weekly. Lec 1, Lab 7.5, Cr 3.	Technical
CNBT 1166	Practicum	The practicum provides the student a filed experience with practical and general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lec 112, Cr 1.	Technical
CNBT 1167	Practicum	The practicum provides the student a field experience with practical and general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lec 112, Cr 1.	Technical
CNBT 1301	Introduction to Construction Industry	This course provides an overview of the construction industry, including: organizational structures and systems, safety regulation and agencies, construction documents! office and field organizations, and the various construction crafts. Field trips will be utilized to reinforce classroom and laboratory instruction. Lec 2, Lab 3, Cr 3.	Technical
CNBT 1302	Mechanic, Plumbing, and Electrical Systems in Construction	The course presents the basic mechanical, plumbing and electrical components in construction from a systems approach and their relationship to the overall construction of a building. The craft of carpentry will also be covered as an integral part of the construction process from the initial installation of forms to the detail finish of a construction project. Lec 2, Lab 3, Cr 3.	Technical

CNBT 1311	Construction Methods and Materials	This course provides and introduction to construction materials and methods and their applications. Students will identify construction materials and list their applications to various construction methods in the carpentry, electrical, and plumbing trades. Lec 2, Lab 4, Cr 3.	Technical
CNBT 1346	Construction Estimating	Fundamentals of estimating materials and labor costs in construction are topics in this course. Lec 3, Cr 3.	Technical
CNBT 1366	Practicum: Construction Engineering Technology/ Technician	Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 21, Cr 3.	Technical
CNBT 1391	Special Topics: Construction Blueprint Reading	Topics in this course address current events, skills, knowledge, and/or attitudes and behaviors pertinents to the construction industry. This course was deigned to be multiple times to improve student proficiency. Lec 2, Lab 4, Cr 3.	Technical
CNBT 2166	Practicum	The practicum provides the student a field experience with practical and general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lec 112, Cr 1.	Technical
CNBT 2167	Practicum	The practicum provides the student a field experience with practical and general workplace training supported by an individualized learning plan developed by the employer, college, and student. Lec 112, Cr 1.	Technical
COMM 1129	Publications Laboratory	Supervised work as a member of the university news paper staff. The student is expected to learn editing and makeup. A student may register for this course each semester, with a maximum of four semester hours. Lab 3, Cr 1.	Academic
COMM 1307	Introduction to Mass Media	This course is designed to provide students with an overview of broadcasting and cable casting! history, programming, regulations, and financial structures. Commercial, educational and public radio and television, both in the United States and around the world, will be covered with an emphasis on helping the student be a better-informed, and more critical consumer. Lec 3, Cr 1.	Academic
COMM 2311	Writing for the Mass Media	Theory and practice of news gathering and writing with emphasis on effective writing. Assignments cover general news, interviews, speeches, meetings, and other fields of activity. Lec 3, Cr 3.	Academic
COMM 2316	Interviewing Principles	This course is designed to improve students' verbal and nonverbal skills in participating in and conducting several types of interviews. Students have the opportunity to develop basic skills in data analysis and techniques such as structuring interviews, techniques, methods of evaluation, and personal presentation. Lec 3, Cr 3.	Academic
COMM 2324	Studio Technology I	Students will produce, engineer, mix, setup, and perform in actual recording sessions. Samples for portfolios may be acquired. Lec 1, Lab 4, Cr 3.	Academic
COMM 2331	Radio/Television Announcing	Study of voice, diction, pronunciation, phonetics, and delivery in various types of announcing. Lec 3, Cr 3	Academic
COMM 2366	Film Appreciation	This course traces the history of film from its conception. Within the course, the student will examine all aspects of cinematic systems of style and narrative. Both the communication major and non-major will be provided with critical skills to analyze and discuss film. Lec 3, Cr 3.	Academic
COMM 3310	Communication in Context	This course is designed to expose students to significant issues and topics are related to contexts of communication: media issues, political communication, health communication, gender communication, and family communication. This course may be repeated three times for a total of nine hours for credit. Lec 3, Cr 3.	Academic
COMM 3311	Gender and Communication	This course is an examination of issues related to gender differences in communication, including discussion of biological, social and cultural sources of gender roles in communication. This course also examines religion, economic change, women's and men's movements and their impact on current gender role expectations. Lec 3, Cr 3.	Academic
COMM 3314	Communication for Sales Success	Course will examine tools, tactics, and processes for successful selling. Students will practice selling products by phone, in person, sales interviews and sales presentations for both consumer and corporate "customer." Lec 3, Cr 3.	Academic
COMM 3315	Methods and Strategies of Social Influence	Designed to examine persuasive and rhetorical techniques as they apply to effective social influence in interpersonal, small group, and mass communication settings. Emphasis on motivational factors, psychological and rhetorical principles, credibility, image, and theories of attitude change. Lec 3, Cr 3.	Academic

COMM 3316	Intercultural Communication	Study of the symbolic and relativistic nature of culture and the resultant problems in attempting to communicate meaning across cultural lines. Lec 3, Cr 3.	Academic
COMM 3321	Technical and Professional Communication	Designed to serve students in scientific and technical areas, including business administration, computer science, engineering, biochemistry, and other fields. Provides students with the specific speech communication concepts, principles, and competencies needed to create in listeners an understanding of both the principles and applications of scientifically studied fields of knowledge. Lec 3, Cr 3.	Academic
COMM 3323	Theories of Communication	Designed to provide the student with a comprehensive overview and analysis of the nature, history and goals of communication theories. Lec 3, Cr 3.	Academic
COMM 3325	Visual Communication	Designed to provide the students with a survey of modern technology on interpersonal communication, including an introduction to communication technologies! the influence of technology on interpersonal communication, group decision making, and mediated communication! and an analysis of argumentation and persuasion in technological issues. Lec 3, Cr 3.	Academic
COMM 3330	Leadership Communication	Designed to examine the role appropriate communication skills play in improving students' ability to address management and leadership duties. Emphasis is placed on organizational processes, leadership styles, and interpersonal, presentational, and group communication skills that are useful in business, governmental, and professional settings. Relationships between cultural diversity and leadership and communication are explored. Lec 3, Cr 3.	Academic
COMM 3335	Mass Communication and Society	Examines theories and effects of the mass communication process. Emphasis on media as they relate to political systems, radio talk shows, and new communication technologies. Lec 3, Cr 3.	Academic
COMM 3353	Advanced Public Speaking	Provides students with intensive application of public speaking principles to various situations. Critical thinking, analysis, reasoning, organization skills, and methods for intensifying presentation impact are stressed. An audience-centered approach to public presentations is the central issue for this course. Lec 3, Cr 3.	Academic
COMM 3360	Feature Writing	Interpreting trends in reader appeal, analyzing feature story structure! finding ideas for gathering materials, writing and selling feature articles. Lec 3, Cr 3.	Academic
COMM 4300	Communication Internship	Course applies communication knowledge to a specific career or job opportunity. Student works 10-15 hours per week in a applied communication field with supervisory feedback to instructor. Students will assemble portfolio of work to demonstrate what has been learned/accomplished in the internship. Intern 3, Cr 3.	Academic
COMM 4303	Special Topics in Communication	Select topic in an identified area of communication. May be repeated for credit when the topics vary. Lec 3, Cr 3.	Academic
COMM 4310	Integrated Communication for Advertising Public Relations and Sales Promotion	This course examines the integration of promotional activities within an advertising and public relations context. Lec 3, Cr 3.	Academic
COMM 4311	Public Relations	Explores the principles of public relations as practiced in public affairs and private business. Lec 3, Cr 3.	Academic
COMM 4312	Applied Organizational Communication	Analysis of organizational communication processes and development of interpersonal, presentational, and group communication skills that are useful in business, governmental, and professional organizations. Lec 3, Cr 3.	Academic
COMM 4332	Principles of Instruction and Training	Designed to provide students with exposure to classroom communication patterns, climate, and ecology as they relate to instruction. Student-teacher, teacher-teacher, teacher-administrator, and school-public interaction and examined. Lec 3, Cr 3.	Academic
COMM 4340	Advertising	Designed to expose the student to principles of advertising as they are applied and used in differing media. Emphasis is place on writing advertising copy, layout, and design. Lec 3, Cr 3.	Academic
COMM 4344	Communication Campaign Development	Designed to provide students with an in-depth study of persuasive and campaign development. Students will prepare an integrated campaign. Lec 3, Cr 3.	Academic
COMM 4345	Communication and Conflict Management	Theory and research pertaining to management to resolution of conflict across diverse contexts. Lec 3, Cr 3.	Academic

COMM 4350	Research in Communication	Designed to develop students' ability to understand, evaluate, and produce social/ scientific research in the area of communication. Students will be exposed to the major methods of research used in speech communication, journalism, and mass media. Each student is responsible for the successful completion of an individually authored research project. Lec 3, Cr 3.	Academic
COMMU 2333	Film and T.V. Production	Students will learn the practical application of film and television production principles through hands on training in the operation of cameras, lighting equipment, sound recording equipment, and digital editing systems. Lec 3, Cr 3.	Academic
COMMU 2353	Argumentation and Debate	This course will teach theory and practice of formal debate. Course covers the basis for establishing a point of view, logical proof (evidence and reasoning) and also requires development of written briefs, critical thinking exercises, and public debate. Lec 3, Cr 3.	Academic
COSC 1301	Microcomputer Applications	This course provides an overview of computer information systems and introduces computer hardware, software, procedures, and systems, exploring their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied. Lec 3, Cr 3.	Academic
COSC 1336	Programming Fundamentals I	This course is an introduction to programming logic and programming. Topics include propositional calculus and Boolean algebra, numeric systems and their arithmetic, software development ethics and methodologies, data types, control structures, functions, arrays, testing and debugging. This course satisfies computer literacy requirements. Lec 3, Lab 1, Cr 3.	Academic
COSC 1337	Programming Fundamentals II	The course will use a high level programming language to review structured and abstract data types, object oriented paradigm, software engineering techniques, searching and sorting techniques, and analysis of algorithm. Lec 3, Lab 1, Cr 3.	Academic
COSC 1437	Programming Fundamentals II	This programming intensive course uses a high level language to review controls structures subroutines, structured and abstract data types, file input and output, the object oriented paradigm, software engineering techniques, syntax and semantics, compilation, libraries, basic searching and sorting techniques, and elementary analysis of algorithm. Lec 3, Lab 2, Cr 4.	Academic
COSC 2310	Discrete Structures	This course is a study of proof techniques, asymptotic notations for growth function analysis, common functions found in algorithm analysis, manipulating and bounding summations, different methods to solve recurrences including alteration and generating functions, combinatory analysis, number theory, binomial coefficients, sets, graphs, and trees. Lec 3, Lab 1, Cr 3.	Academic
COSC 2312	Digital Logic	This course covers Boolean algebra applied to digital logic including normal form representation, resolution, simplification of digital systems. Sequential circuits and combinational circuits are studied and reinforced with projects leading to the design of a microprocessor. Lec 3, Lab 1, Cr 3.	Academic
COSC 2316	Web Programming and Design	This course focuses on the design of multimedia programs and Web applications using languages such as JAVA and HTML. The course will develop the student's skills in developing multimedia applications integrated with Web designs through the use of programming languages. Lec 3, Lab 1, Cr 3.	Academic
COSC 2325	Machine Language and Computer Organization	This assembly language intensive course covers machine cycle, digital representation of data and instructions, assemblers, loaders, macros, subroutines, and program linkages. Concepts of computer organization, operating systems, concurrent processes, synchronization and communication are introduced. Lec 3, Lab 1, Cr 3.	Academic
COSC 2336	Programming Fundamentals III	This course is designed for computer science and engineering students. The course will include topics including concepts of file input/ output, recursion backtracking, data structures including queues, stacks, linked lists, trees, hash tables, and graphs. Software engineering techniques for modularity, reusability, documentation, testing, error detection and recovery are also covered. Lec 3, Lab 1, Cr 3.	Academic
COSC 3325	Computer Architecture	Combinational and sequential logic (reinforced by several lab projects) are studied leading to the design of a processor. Hardware description languages in conjunction with hardwired/microprogramming controllers are studied. Lec 3, Lab 1, Cr 3.	Academic

COSC 3330	Introduction to Networks and Databases	A modern operating system is used to enable students to perform exercises in multitasking, distributed DBMS, networking, and user interfaces. Computer networking, and network programming, and concepts of computer graphics are introduced. Lec 3, Cr 3.	Academic
COSC 3345	Algorithm Analysis	Concepts of creating, storing, retrieving, ordering, and manipulation of data structures are introduced via programming intensive projects. Formal specification of data structures in programming languages is studied in depth. Algorithms used are analyzed for their space and time complexity. Lec 3, Lab 1, Cr 3.	Academic
COSC 3355	Principles of Programming Languages	This course is a theory of programming languages, including Syntax and semantics of a language, scoping, binding, storage allocation, procedures and data objects, data-directed programming, object-oriented programming, and other modern programming concepts. Lec 3, Lab 1, Cr 3.	Academic
COSC 3380	Special Topic	A special topic will be covered in this course at the junior level. Different sections may cover different topics in a semester. Under special topics, courses related to new developments in the area of computer science will be offered. Lec 3, Cr 3.	Academic
COSC 4190	Senior Project	Students will develop a project and give a presentation to a faculty committee under the guidance of a faculty project advisor. Lab 3, Cr 1.	Academic
COSC 4300	Compiler Construction	Different phases of compiler construction are studied, including lexical, syntax, semantics, and code generation. Projects leading to the complete construction of a computer for a mini set of a language are carried out. Lec 3, Lab 1, Cr 3.	Academic
COSC 4310	Operating Systems	The student is familiarized with the services common to most operating systems. Issues in CPU scheduling, concurrent processes, deadlocks, memory management, file management, and distributed systems are dealt with. Students are given relevant projects to support the theoretical aspects learned in class. Lec 3, Lab 1, Cr 3.	Academic
COSC 4313	Computer Networks	Computer networks are presented via seven distinct layers: physical, data link, network, transport, session, presentation, and application layer. hardware and protocols used at different layers and in different networks are studied in detail. Different existing networks are studied as examples in every layer. Lec 3, Lab 1, Cr 3.	Academic
COSC 4315	Advanced Computer Networks	This course covers the design of networks and their performance. Topics that will be studied are cryptology, network programming, and secure channels, data preprocessing, pattern recognition, attribute relevance analysis, class discrimination, rule associate, correlation analysis, classification, prediction, cluster analysis and query languages. Lec 3, Lab 1, Cr 3.	Academic
COSC 4317	Signals and Systems	An in depth study to signals and systems including discrete and multi-dimensional signals. Random variables and representation of signals in the time and frequency domains will be covered, including filter design and analysis. Topics will be reinforced with junior/senior level capstone projects. Lec 3, Lab 1, Cr 3.	Academic
COSC 4318	Digital Forensics	This course explores the science, technology, procedures, and laws of acquiring and analyzing evidence from digital media and computing devices. Current Forensics tools will be surveyed, and case studies will be assigned and presented in class. Lec 3, Lab 1, Cr 3.	Academic
COSC 4319	Computer and Cyber Security	This course is an in-depth of computer systems and network security principles. Key areas include network attacks and defenses, operating system flaws, malware, social engineering attacks digital rights management. Lec 3, Lab 1, Cr 3.	Academic
COSC 4321	E-Commerce	This course covers e-commerce implementation including e-commerce security and prevention, e-commerce scalable architecture design, Internet infrastructure, web server administration, e-payment, mobile commerce (mCommerce) systems and business-to-business (B2B) systems. Lec 3, Lab 1, Cr 3.	Academic
COSC 4330	Computer Graphics	The student is familiarized with structured graphical objects. The algorithms for transforming, clipping, and projecting objects are put into practice several projects. Hidden line/surface removal, shading/lighting models, and the problem of aliasing are studied. Lec 3, Lab 1, Cr 3.	Academic
COSC 4332	Human Computer Interaction	Simple and compound classes, page and page selector classes, animation and pop up classes, configuration and deriving of new objects, application interface, overall design, and machine dependencies are studied. Application-oriented graphic user interfaces are built. Lec 3, Lab 1, Cr 3.	Academic

COSC 4333	Digital Image Processing	This course covers the basic techniques used in acquiring, processing, and displaying of digital images and video. Topics include image acquisition, spatial and frequency domain representation, image filtering, image compression, image analysis, morphological image processing and image understanding. Efficient implementation of image processing algorithms in a structured computer language is emphasized. Lec 3, Lab 1, Cr 3.	Academic
COSC 4335	Computer Vision	The course covers the fundamental and advanced ideas of developing computerized procedures to extract numeric and symbolic information from images. Key ideas includes image formation, acquisition, calibration, object recognition, video understanding, stereo imaging, optical flow and classification methods. System implementation and applications in communication, medicine, robotics and manufacturing are introduced. Lec 3, Lab 1, Cr 3.	Academic
COSC 4342	Database Management Systems	Data abstraction and models, entity-relationship model, relational model, formal and commercial query languages, network and hierarchical data models, relational database design, file and system structure, indexing and hashing, query processing, and concurrency control are studied. Lec 3, Lab 1, Cr 3.	Academic
COSC 4343	Data Mining	This course gives the fundamentals of applying artificial intelligence techniques for analysis, learning and prediction of information using data extracted from databases. Topics include data mining system architecture, data preprocessing, pattern recognition, attribute relevance analysis, class discrimination, rule association, correlation analysis, classification, prediction, cluster analysis and query languages. Lec 3, Lab 1, Cr 3.	Academic
COSC 4345	Advanced Algorithm Analysis	Both basic and advanced techniques of algorithm design and analysis are introduced. Algorithms with real applications are thoroughly studied. The notion of NP-complete problems and design and analysis techniques for approximation and randomized algorithms are also introduced. Lec 3, Lab 1, Cr 3.	Academic
COSC 4346	Software Engineering	The scope of systems analysis, systems investigation and analysis, input and output design, storage devices, file organization, sorting and merging, factors affecting file design, system design, the program specifications, design strategy, and financial applications are studied. Lec 3, Lab 1, Cr 3.	Academic
COSC 4347	Advanced Software Engineering	This course is an in-depth study of advanced software engineering principles including project management, team building, team organization, cost estimation, scheduling, description and evaluation of software architecture design, object-oriented design methodologies, and refactoring. Practical aspects of software are discussed including testing, maintenance, safety, security, quality assurance, and reliability. Lec 3, Cr 3.	Academic
COSC 4349	Advanced Computer Architecture	This course covers classical and modern computer architectures. Techniques such as microprogramming and counter-decoder methods will be included. Other topics that will be studied include parallel computing architectures, their performance and programming. Lec 3, Lab 1, Cr 3.	Academic
COSC 4350	Artificial Intelligence	This course discusses the theoretical and practical foundations of Artificial Intelligence. Principles of reasoning, perception, deduction, planning, learning, knowledge representation and problem resolution are some of the areas covered. Lec 3, Lab 1, Cr 3.	Academic
COSC 4355	Expert Systems	This course covers the theoretical and practical principles of modern Expert Systems construction. Lec 3, Lab 1, Cr 3.	Academic
COSC 4360	Numerical Methods	The topics include root finding, interpolation and numerical differentiation, polynomial interpolation, estimating derivates, numerical integration, systems of linear equations, approximation by spline functions, and smoothing of data. This course satisfies the computer science course requirements toward a major in mathematics. Lec 3, Lab 1, Cr 3.	Academic
COSC 4361	Computability Theory	This course introduces elements in formal language theory and computability theory. Theoretical foundations of computer science will be covered. Lec 3, Lab 1, Cr 3.	Academic
COSC 4362	Complexity Theory	This course introduces basic concepts, results and techniques in computational complexity theory, and provides a deeper insight of the power of computing using the Turing-machine model. Lec 3, Lab 1, Cr 3.	Academic
COSC 4380	Special Topics	A special topic will be covered in this course at the senior level. Different sections may cover different topics in a semester. Under special topics, courses related to new developments in the area of computer science will be offered. Lec 3, Cr 3.	Academic

COSC 4381	Bioinformatics	This course will provide an introduction to the rapidly evolving field of Bioinformatics with the overarching goal of understanding how Computer Science plays an integral part both in application and algorithmic aspects. Lec 3, Lab 1, Cr 3.	Academic
COSC 4382	Bioinformatics Imaging	An introduction to the physical and computational principles of medical imaging systems. Topics covered include fundamentals of x-ray radiography, x-ray computed tomography, ultrasound imaging and magnetic resonance imaging. Current techniques for visualization, segmentation, and analysis of medical image data will also be discussed. Lec 3, Lab 1, Cr 3.	Academic
CPMT 2302	Home Technology Integration	This course covers the integration and maintenance of various home technology subsystems including home automation, security and surveillance, home networks, video and audio networks, structured wiring, design, installation, and maintenance of the various subsystems available to integrate technology for today's high-tech home. Lec 2, Lab 2, Cr 3.	Technical
CPMT 2434	Network Security	Overall security processes with particular emphasis on hands-on skills in the following areas are discussed: security policy design and management! security technologies, products and solutions! firewall and secure router design, installation, configuration and maintenance! AAA implementation using routers and firewalls! VPN implementation using routers and firewalls. Lec 3, Lab 2, Cr 4.	Technical
CPMT 2437	Microcomputer Interfacing	Topics include concepts and terminology involved in interfacing the internal architecture of the microcomputer with commonly used external devices. Lec 3, Lab 3, Cr 4.	Technical
CRIJ 1301	Introduction to Criminal Justice	Provides an overview of the history and philosophy of criminal justice and ethical considerations, defines crime and its nature and impact, provides an overview of the criminal justice system, law enforcement, the court system, prosecution and defense, the trial process, and corrections. Lec 3, Cr 3.	Academic
CRIJ 1306	The Courts and Criminal Procedures	Presents the judiciary in the criminal justice system, including the right to counsel, pretrial release, grand juries, the adjudication process, types and rules of evidence, and sentencing. Lec 3, Cr 3.	Academic
CRIJ 1307	Crime in America	Introduces American crime problems in historical perspective, social and public policy factors affecting crime! the impact of crime! crime trends, social characteristics of specific crimes, and prevention of crime. Lec 3, Cr 3.	Academic
CRIJ 1310	Fundamentals of Criminal Law	Presents the nature of criminal law and its philosophical and historical development! major definitions, concepts and classifications of crime, elements of crime and penalties using Texas statutes as illustrations, criminal responsibility. Lec 3, Cr 3.	Academic
CRIJ 1313	Juvenile Justice System	Provides an overview of the juvenile justice system in the United States, including theories of juvenile delinquency, justice system policy toward juvenile offenders, the structure of juvenile courts, juvenile detention, and juvenile rehabilitation efforts, emphasis will be placed on understanding and applying the Texas Family Code, Title III to juveniles processed through Texas juvenile courts. Lec 3, Cr 3.	Academic
CRIJ 2301	Community Resources in Corrections	Introduces the role of community corrections, including community programs for adults and juveniles, administration of community programs, legal issues, and future trends in community treatment. Lec 3, Cr 3	Academic
CRIJ 2313	Correctional Systems and Practices	Introduces corrections in the criminal justice system, organization of correctional systems correctional role, institutional operations, alternatives to institutionalization, treatment and rehabilitation, and current and future issues. Lec 3, Cr 3.	Academic
CRIJ 2314	Criminal Investigation	Introduces investigative theory, collection and preservation of evidence, sources of information, interview and interrogation, uses of forensic sciences, case and trial preparation. Lec 3, Cr 3	Academic
CRIJ 2328	Police Systems and Practices	Presents the police profession, the organization of law enforcement systems, the police role, police discretion and ethics, police community interaction, and current and future issues. Lec 3, Cr 3	Academic
CRIJ 3302	Research Methods in Criminal Justice Criminal Justice	This course provides an overview of quantitative and qualitative research methods commonly used in criminal justice studies. Measurement issues related to validity, reliability, objectivity, and methods of data collection are discussed in detail. Lec 3, Cr 3.	Academic
CRIJ 3303	Nature of Crime	Provides an overall perspective of the crime problem with special emphasis given to philosophical and theoretical ideas pertaining to crime and its control, including examining of the victim and criminal topologies. Lec 3, Cr 3.	Academic

CRIJ 3315	Legal Aspects of Evidence	Critically examines the legal controls on police officers, with special attention to current court decisions related to such issues as arrest, search and seizure, confessions, wiretapping and eavesdropping, right to counsel, and self-incrimination. Focuses on issues relating to elements of proof for major criminal offenses. Presents an understanding of the concepts of reasonable suspicion and probable cause which direct and control police responses to crime situations. Lec 3, Cr 3.	Academic
CRIJ 3331	Legal Aspects of Corrections	Legal problems and principles from conviction to release, including consideration of convictions, imprisonment, sentencing, conditional release, post conviction procedures, prisoners' rights, probationers' right, and validity of conviction. Lec 3, Cr 3.	Academic
CRIJ 3341	Probation and Parole	The philosophy, history and principles of probation, parole and other community-based treatment programs, the philosophy of punishment and rehabilitation! trends, practices and current research in probation and parole, including methods of analysis, selection and prediction. Lec 3, Cr 3.	Academic
CRIJ 3362	Statistics in Criminal Justice	This course covers the basics of descriptive and inferential statistics. It emphasizes the use of data analysis employing SPSS and the understanding of the proper application of statistics in criminal justice research. Lec 3, Cr 3.	Academic
CRIJ 4301	Practicum Field Experience	Teaches job interview techniques and resume writing and requires placement in a criminal justice (or related) agency for on-the-job training for a minimum of 120 hours. Students are evaluated by agency critiques, daily logs, and a weekly meeting with the intern coordinator. Lec 3, Cr 3.	Academic
CRIJ 4312	Principles of Law Enforcement Supervision	Examines the principles involved in law enforcement supervision, principles of leadership, psychology involved in handling grievances and in building morale, duties and responsibilities of command level personnel, law enforcement budgeting procedures, supervisory problems and responsibilities relating to discipline, and internal affairs investigations. Lec 3, Cr 3	Academic
CRIJ 4313	Seminar of Issues in Law Enforcement	Analyses and discusses contemporary issues in policing with particular attention to current developments, service delivery, and the changing police role! integration of established scientific knowledge with practical police experiences in various areas of policing. Lec 3, Cr 3.	Academic
CRIJ 4320	Criminal Justice Organization and Management	This course focuses on fundamental concepts of management, organization, and administration as specifically applicable to corrections and law enforcement. The course also focuses attention on societal trends that impact criminal justice administration. Lec 3, Cr 3.	Academic
CRIJ 4330	Psychology and the Legal Systems	This course provides an interdisciplinary introduction to the field of Forensic Psychology, including basic concepts of the American legal process in civil and criminal cases and application of the science of Psychology in the legal system for the development and implementation of law and policy. Lec 3, Cr 3.	Academic
CRIJ 4341	Correctional Casework and Counseling	Examines the role and techniques of casework in corrections with emphasis on integrating casework and counseling responsibilities and procedures. The course includes examining of therapy techniques and processes in various correctional settings and studying of service delivery programs tailored to the specific needs of correctional clients. Lec 3, Cr 3	Academic
CRIJ 4343	Seminar of Issues in Corrections	Analyses and discusses contemporary correctional systems, including discussion of recent research concerning correctional institutions and various corrections field services. Emphasis is given to administrative and treatment concerns in corrections. Lec 3, Cr 3	Academic
CRIJ 4361	International Study of Crime and Justice	Studies criminal justice programs and institutions outside of the United States through in-country visitations supplemented by assigned readings, papers, discussion, and dialogue with leading in-country criminal justice personnel. The course permits students to obtain a realistic comparative study of criminal justice in countries other than the United States through first hand experiences. Lec 3, Cr 3	Academic
CRIJ 4362	Special Topics in Criminal Justice	Gives advanced undergraduate students the academic flexibility and opportunity to study contemporary issues in crime and criminal justice. May be retaken once for credit upon approval of the department chair. Lec 3, Cr 3	Academic
CRIJ 4363	Gangs and Gang Behavior	This course introduces the student to street and prison gangs! it explores gang structure, organization, and characteristics. Official response to gang problems is also analyzed. Lec 3, Cr 3.	Academic

CRIJ 4370	Senior Seminar - Policy Issues	Provides a capstone course for criminal justice students nearing the completion of the baccalaureate degree (more than 100 semester credit hours). This course is designed to explore current criminal justice policy issues from individual student interest and integrate material learned in the criminal justice curriculum, transcending the parochial view of the crime phenomenon from an agency perspective (police, courts, juvenile justice, and corrections). This course allows the student to explore topical criminal justice policy issues as they effect each agency, from the micro to the macro perspectives and to assess the intended and unintended consequences of criminal justice policies throughout the system and society. Lec 3, Cr 3.	Academic
CRIJU 2315	Forensic Investigation I	A course in criminal investigation processes, methods, tools, and techniques, forensic applications, investigative case management, role of the crime lab, and case documentation. Students engage in semester-long simulation in preparation of comprehensive, legally sufficient investigative felony case folders from crime scene response to the eventual prosecutor's presentation to a grand jury. Lec 48, Cr 3.	Academic
CRIJU 2316	Forensic Investigation II	A course involving the field collection of evidence and the preservation of crime scene evidence, with emphasis on fingerprints, photography, and other skills and competencies expected on an apprentice identification officer and crime scene investigator. Course competencies and tasks correspond to the IAI body of knowledge for the certified crime scene investigator. Lec 3, Cr 3.	Academic
CRIJU 2320	Evidence for Forensic Investigation	This is a course in gathering evidence, fashioning evidentiary arguments and preparing evidence for trail, with emphasis on the practical applications of the rules of evidence with specific forensic science cases and situations presented. Lec 3, Cr 3.	Academic
CRIJU 2325	Medical- Legal Forensics Investigation	An interdisciplinary course in concepts in forensic investigation/ evidentiary aspects of traumatic wounds and injuries, death, sexual assault, intimate partner violence, child abuse, and elder abuse, this course is of utility to law enforcement, protective services, and health care professionals. Lec 3, Cr 3.	Academic
CRIJU 2330	Seminar in Forensics Investigation	This course is a general survey of forensic science careers, specializations, qualifications, professional literature, ethics, certifications, with a special emphasis on legal and procedural aspects of preparation for and actual testimony in court. Lec 3, Cr 3.	Academic
CRPT 1311	Conventional Roof Systems	This course is a study of the principles and development of the skills relative to the design and construction of a conventional roof system incorporating gable, hip, and intersections. Emphasis will be placed upon safe work practices and the selection, use, and maintenance of tools, equipment, and materials common to roof construction. Lec 2, Lab 4, Cr 3.	Technical
CRPT 1315	Conventional Wall Systems	This course provides instruction and skill development in the construction of conventional wall systems with emphasis on both wood and metal frame. Topics include identification of components, construction of wood and metal frame wall systems, safe work practices, and the selection, use and maintenance of tools, equipment, and materials typical to wall construction. Lec 2, Lab 4, Cr 3	Technical
CRPT 1323	Floor Systems	This course is an introduction to common floor systems. Topics include component identification, floor construction, safe work practices, and the selection, use, and maintenance of tools, equipment, and materials used in floor construction. Lec 2, Lab 3, Cr 3	Technical
CRPT 1325	Forms and Foundations I	This course provides instruction in the construction of basic from and foundation systems typical to residential and light commercial construction. Emphasis will be placed upon safety, building lay out, and the selection of tools, equipment, and materials typical to constructing forms and foundations. Lec 2, Lab 3, Cr 3	Technical
CRPT 1341	Conventional Exterior Finish Systems	This course provides skill development in the installation of exterior finish systems and components including the placement and installation of cornice, windows, doors, siding, and flashing. Emphasis will be placed on safety maintenance, and the proper selection and use of tools, equipment, and materials. Lec 2, Lab 2, Cr 3.	Technical

CRPT 1345	Conventional Interior Finish	This course provides instruction and skill development in the installation of interior finish systems and components including the placement and installation of doors, trim, floor, wall, and ceiling finishes. Emphasis will be placed upon safe work practices and proper maintenance in addition to the proper selection and use of materials, tools, and equipment typical to interior finish. Lec 2, Lab 2, Cr 3.	Technical
CTMT 3332	Principles of Computed Tomography	In depth coverage of computed tomography imaging techniques. Image quality assurance and radiation protection are emphasized. Lec 3, Cr 3.	Academic
CTMT 3636	Computed Tomography Equipment and Methodology	Skills development in the operation of computed topographic equipment, focusing on routine protocols, image quality, quality assurance and radiation protection. Lec 3, Lab 6, Cr 6.	Academic
CTMT 4636	Practicum in Computed Tomography	Practice in the clinical setting performing CT Imaging. Close supervision by preceptor in the clinical setting. This experience can be paid or non paid. Lec 1, Lab 6, Cr 6.	Academic
DANC 1241	Ballet I	Introduction to technique, theory and vocabulary of classical ballet. Previous ballet experience necessary. Lab 3, Cr 2.	Academic
DANC 1242	Ballet II	A continuation of DANC 1241. Lab 3, Cr 2.	Academic
DANC 1251	Theatre Dance I	An introduction to all aspects of theater dance. Emphasis on technique and vocabulary leading to skills in performing jazz, tap, modern, character, and folkloric dance. Previous dance experience necessary. Lab 3, Cr 2.	Academic
DANC 1252	Theater Dance II	A continuation of DANC 1251. Lab 3, Cr 2.	Academic
DANC 2241	Ballet III	A continuation of DANC 1242. Lab 3, Cr 2.	Academic
DANC 2242	Ballet IV	A continuation of DANC 2241. Lab 3, Cr 2.	Academic
DANC 2251	Theater Dance III	A continuation of DANC 1352. Prerequisite: DANC 1252 or equivalent skills. Lab 3, Cr 2	Academic
DANC 2252	Theater Dance IV	A continuation of DANC 2251. Lab 3, Cr 2.	Academic
DFTG 1393	Special Topic: Hurricane Mitigation	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. Topics includes weather aspects of hurricanes and high winds design/construction. Lec 2, Lab 3, Cr 3.	Technical
DFTG 1405	Technical Drafting	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. Lec 3, Lab 3, Cr 4	Technical
DFTG 1409	Basic CAD	An introduction to basic computer-aided drafting. Emphasis is placed on drawing setup, creating and modifying geometry, storing and retrieving predefined shapes, placing, rotating, and scaling objects, adding text and dimensions, using layers and coordinate systems, input and output devices. Lec 3, Lab 3, Cr 4.	Technical
DFTG 1417	Architectural-Residential	Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structures with emphasis on light frame construction methods. Lec 3, Lab 3, Cr 4	Technical
DFTG 1491	Special Topics: CAD Applications	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. Lec 3, Lab 3, Cr 4	Technical
DFTG 2317	Descriptive Geometry	Graphical solutions to problems involving points, lines, and planes in space. Lec 2, Lab 3, Cr 3.	Technical
DFTG 2323	Pipe Drafting	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. Lec 2, Lab 3, Cr 3.	Technical
DFTG 2328	Architectural- Commercial	Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lec 2, Lab 3, Cr 3.	Technical
DFTG 2386	Internship	A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed the college and the employer. Lec 144, Cr 3	Technical
DFTG 2421	Topographical Drafting	Plotting of surveyors field notes, plotting elevations, contour drawing, plan and profiles, and laying out traverses are course topics. Lec 3, Lab 3, Cr 4	Technical
DFTG 2432	Advanced CAD	Use of advanced techniques, including the use of a customized system and the principles of data manipulation for drawing production enhancement. Presentation of advanced drawing applications, such as three-dimensional modeling and linking graphics entities to external non-graphic data are topics covered. Lec 3, Lab 3, Cr 4.	Technical

DFTG 2440	Solid Modeling/Design	A computer-aided modeling course. Development of three-dimensional drawing and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lec 3, Lab 3, Cr 4	Technical
DMSO 1166	Practicum-Diagnostic Medical Sonography Technician	This course offers a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 9, Cr 1.	Technical
DMSO 1167	Practicum- Diagnostic Medical Sonography Technician	This course offers a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 10, Cr 1.	Technical
DMSO 1302	Basic Ultrasound Physics	Basic acoustical physics and acoustical waves in human tissue. Emphasis on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Lec 3, Cr 3.	Technical
DMSO 1342	Intermediate Ultrasound Physics	A continuation of the study of acoustical physics. Topics include interaction of ultrasound with tissues, the mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, image artifacts, and methods of Doppler flow analysis. The student will describe pulse-echo principles and actions! recognize instruments options and transducer selection! interpret methods of Doppler flow analysis! identify elements of a quality assurance program! recognize common image artifacts! and describe potential bioeffects. Lec 3, Cr 3.	Technical
DMSO 1355	Sonography Pathophysiology	A study of the pathology and pathophysiology of the abdominal structures visualized with ultrasound examination including the urinary and reproductive systems and superficial parts. The student will recognize abnormal sonographic patterns of the abdomen, reproductive and urinary systems, and superficial parts! and recognize pathologic processes in identified organ structures. Lec 3, Cr 3.	Technical
DMSO 1367	Diagnostic Medical Sonography	This course offers a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 24, Cr 3.	Technical
DMSO 1441	Introduction to Abdominopelvic Sonography	Basic sonographic cross-sectional anatomy as it relates to the abdomen and pelvis. Normal anatomy and physiology of the abdominal/pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Lec 3, Lab 4	Technical
DMSO 2245	Advanced Sonography Practices	Advanced sonographic procedures and special topics. Review of previously covered material is included. Vascular methodology, case studies, and film critique are discussed. The student will describe various advanced sonographic practices and procedures! and identify and describe methods of vascular imaging and testing. Lec 2, Cr 2.	Technical
DMSO 2253	Sonography of Superficial Structures	Detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. The student will identify sonographic appearance of normal and abnormal superficial structures! demonstrate appropriate scanning technique using accepted protocol guidelines! evaluate patient history and laboratory data as it relates to ultrasound! and select appropriate transducer for area of interest. Lec 1, Lab 2.	Technical
DMSO 2342	Sonography of High Risk Obstetrics	This course emphasizes normal and abnormal maternal/fetal development as it relates to scanning techniques, patient history and laboratory data, transducer selection and scanning protocols. The student will identify and describe normal and abnormal fetal and maternal structures! demonstrate pertinent measurement techniques and scanning techniques using accepted protocols! evaluate patient history and laboratory data as it relates to ultrasound! and select appropriate transducer for area of interest. Lec 2, Lab 4, Cr 3.	Technical
DMSO 2343	Advanced Ultrasound Physics	Advanced course emphasizing the use of ultrasound instruments including modes of operation, operation control options, techniques for recording static and dynamic images, and advances in transducer design. The student will apply principles of ultrasound instruments and modes of operation! utilize operator control options! summarize techniques for recording sonographic images! and relate advances in transducer designs. Lec 2, Lab 4, Cr 3.	Technical
DMSO 2366	Diagnostic Medical Sonography	This course offers a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 24, Cr 3.	Technical

DMSO 2405	Sonography of Obstetrics and Gynecology	Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducers selection, and scanning protocols. Lec 3, Lab 3, Cr 4.	Technical
DMSO 2441	Sonography of Abdominopelvic Pathology	This course emphasizes pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Endocavitary sonographic anatomy and procedures including pregnancy may be discussed. The student will identify abnormal abdominal/pelvic structure! demonstrate appropriate scanning techniques using accepted protocol guidelines! evaluate patient history and laboratory data as it relates to ultrasound! and select appropriate transducer for area of interest. Lec 3, Lab 4, Cr 4.	Technical
DMSO 2451	Doppler Physics	This course describes Doppler and hemodynamic principles relating to arterial and venous imaging and testing. Lec 3, Lab 3, Cr 4.	Technical
DRAM 1310	Introduction to Theater	Fundamentals of dramatic art, structural techniques, character analysis and interpretation, makeup! costuming, set design, construction, and lighting! and participation in plays. Lec 3, Lab 3, Cr 3.	Academic
DRAM 1351	Introduction to Acting	Introductory study and analysis of acting, with emphasis on stage movement, spatial awareness, behavioral techniques, and character development. Lec 3, Lab 3, Cr 3	Academic
DRAM 2361	History of the Theater	A study of the history of the theatre including critical review and analysis of selected plays from Greek antiquity to the present. Lec 3, Cr 3	Academic
DSEC 3140	Practicum I Echocardiography	A basic type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional, generally in a clinical setting. Practicum 1, Cr 1.	Academic
DSEC 3200	Introduction to Echocardiography Techniques	An introduction to scanning techniques and procedures with hands-on experience in a lab setting. Emphasis is placed on the sonographic explanation of the normal adult heart. Lec 1, Lab 1, Cr 2.	Academic
DSEC 3300	Principles of Adult Echocardiography	An introduction to cardiovascular anatomy and physiology, including hemodynamics and spatial relationships of the normal adult heart. Topics include anatomical correlation of 2D, M-mode and Doppler sonographic imaging. Scanning techniques are correlated and taught in the laboratory sessions. Lec 2, Lab 1, Cr 3.	Academic
DSEC 3340	Adult Echocardiography	Fundamental theories of echocardiography including cardiac anatomy and physiology, physics, M-mode 2-D correlation and scanning protocol, mitral valve normal and abnormal echo patterns, hemodynamic and conduction changes, and basic Doppler and color flow. Designed for sonographers and individuals practicing echo who need more of an academic echo background. Lec 2, Lab 1, Cr 3.	Academic
DSEC 4140	Practicum II Echocardiography	An advanced type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional, generally in a clinical setting. Practicum 12, Cr 1.	Academic
DSEC 4200	Echocardiography Evaluation of Pathology I	An emphasis on adult acquired cardiac pathologies. Topics include cardiovascular pathophysiology, quantitative measurements and the application of 2D, M-mode, and Doppler. Recognition of the sonographic appearances of cardiovascular disease is stressed. Lec 1, Lab 1, Cr 2.	Academic
DSEC 4300	Echocardiography Evaluation of Pathology II	A continuation of Echocardiography Evaluation of Pathology I with emphasis on cardiac disease. Topics include adult and pediatric congenital heart disease. A discussion of quantitative measurements and application of 2D, M-mode, and Doppler. Recognition of the sonographic appearances of cardiac disease is stressed. Lec 2, Lab 1, Cr 3.	Academic
DSVT 3140	Practicum I Vascular Technology	A BASIC type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional, generally in a clinical setting. Practicum 12, Cr 1.	Academic
DSVT 3210	Vascular Technology Applications	Study of noninvasive vascular exams with emphasis on anatomy and physiology, and pathophysiology. Lec 2, Cr 2.	Academic
DSVT 3300	Introduction to Vascular Technology	An introduction to basic noninvasive vascular theories, with emphasis on basic skills and knowledge, such a image orientation, transducer handling and identification of anatomic structures. Lec 2, Lab 1, Cr 3.	Academic

DSVT 3330	Principles of Vascular Technology	An introduction to noninvasive vascular technology modalities, including 2D imaging, Doppler, plethysmography and segmental pressures. Emphasis on performing basic venous and arterial imaging and non-imaging exams. Lec 2, Lab 1, Cr 3.	Academic
DSVT 3340	Cerebral Vascular Evaluation	Integration of basic concepts and the application of non-invasive technology for the evaluation of carotid disease. Lec 3, Cr 3.	Academic
DSVT 3350	Peripheral Vascular Evaluation	Integration of basic concept and the application of noninvasive technology for the evaluation of peripheral vascular disease. Lec 3, Cr 3.	Academic
DSVT 4140	Practicum II Vascular Technology	An ADVANCED type of health professions work-based instruction that helps students synthesize new knowledge, apply previous knowledge, or gain experience managing the workflow. Practical experience is simultaneously related to theory. Close and/or direct supervision is provided by the clinical professional, generally in a clinical setting. Practicum 12, Cr 1.	Academic
EABL 3312	Teaching Reading in the Bilingual Classroom	Students will be given the opportunity to learn the developmental process involved in biliteracy. This course focuses on methods and techniques for integrating teaching and assessing reading skills in Spanish-English bilingual classrooms. Taught in Spanish Lec 3, Cr 3	Academic
EACI 4324	Designing Instruction and Assessment to Promote Student Learning - A.C.P	Knowledge of student diversity and learning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. Field-based course. Lec 3, Lab 3, Cr 3	Academic
EAEC 4385	Growth and Development of Young Children -A.C.P	Emphasis on developmental and growth characteristics for birth through the eighth year. Affective development, psychomotor development, social and emotional development. Cultural dynamics of family relationships and the family and school are emphasized. Observations, reading, lectures! class activities include day care as well as TEA accredited schools for pre-kindergarten and kindergarten children. Field experience required. Lec 3, Cr 3.	Academic
EAIN 4320	Elementary/ Secondary Internship I-A.C.P	This course involves supervised classroom teaching and seminars designed to relate classroom teaching/ learning experience to corresponding educational theory applicable to all educational levels. Lec 3, Cr 3.	Academic
EAIN 4321	Elementary/ Secondary Internship II - A.C.P	This course involves supervised classroom teaching and seminars designed to relate classroom teaching/learning experience to corresponding educational theory applicable to all educational levels. Lec 3, Cr 3.	Academic
EALI 3311	Beginning Literacy for English Language Learners	Students focus on the early foundations of oral language, reading, and writing development. This course will include the teaching of phonological awareness, phonics, vocabulary, and comprehension. Instructional strategies for English language learners are incorporated. Lec 3, Cr 3.	Academic
EALI 3323	Beginning Literacy for E.S.L Learner: 2nd-4th Grade- A.C.P	Students focus on word analysis and decoding, reading fluency, reading comprehension and writing conventions. Students plan and present literacy lessons using techniques appropriate for English language learners. Field experience required. Lec 3, Cr 3	Academic
EALI 4329	Literacy and Assessment- A.C.P	Participants understand the basic principles of formative and summative assessment and use a variety of literacy assessment practices to plan and implement instruction for students. Evaluation of strengths, needs and interests using standardized and alternative assessments will be included. Lec 3, Cr 3.	Academic
EALI 4351	Content Area Literacy- A.C.P	This course focuses on explicit strategies to teach and monitor content area reading comprehension, vocabulary development, and study skills for all learners. Factors influencing reading comprehension, as well as a variety of reading materials and formats, will be highlighted. Field-based experience is required. Lec 3, Cr 3.	Academic
EALI 4367	Teaching Reading to the English Language Learner- A.C.P	This course offers the student the opportunity to develop knowledge and instructional strategies for teaching reading to students of diverse cultural-linguistics backgrounds. Special emphasis will be placed on developing oral language proficiency as a prerequisite skill to reading and on instructional strategies designed specifically to meet the needs of such learners. Lec 3, Cr 3.	Academic
EAMG 4324	Designing Instruction and Assessment to Promote Student Learning: 4th-8th Grades -A.C.P	Knowledge of students, learning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. Field-based course. Lec 3, Lab 3, Cr 3	Academic

EAMG 4325	Implementing Responsive Instruction and Assessment: 4th-8th Grade- A.C.P	This class emphasizes communication, instruction and assessment and technology. This knowledge will be implemented to create responsive instruction and assessment that actively engages all students in the learning process. Field-based course. Lec 3, Lab 3, Cr 3	Academic
EASC 4324	Designing Instruction and Assessment to Promote Student Learning: 8th-12th Grade -A.C.P	Know ledge of students, learning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. Field-based course. Lec 3, Lab 3, Cr 3	Academic
EASC 4325	Implementing Responsive Instruction and Assessment: 8th-12th Grade-A.C.P	This class emphasizes communication, instruction and assessment strategies and technology. This knowledge will be implemented to create responsive instruction and assessment that actively engages all students in the learning process. Field-based course. Lec 3, Lab 3, Cr 3.	Academic
EASL 4307	Foundations of Bilingual/E.S.L-A.C.P	Students will learn the foundations of bilingual and English as a Second Language programs. Current research on first and second language acquisition, bilingual and ESL programs, theories and models is emphasized. Field experience is required. Lec 3, Lab 3, Cr 3	Academic
EAUCU 2301	Introduction to Special Populations	This education course introduces students to issues related to characteristics of special needs population as well as classroom strategies for instruction of diverse populations. Students will also be introduced to the legal issues related to students with special needs. Field experience required. Lec 3, Cr 3.	Academic
ECCS 3310	Introduction to Emergency and Critical Care	The purpose of this course is to provide the learner with advanced knowledge in critical care medicine. Topics will include monitoring technology, advanced procedures, diagnostic testing, and treatment of acutely critical patients. Lec 3, Cr 3.	Academic
ECCS 3325	Advanced Airway Management	Prepares the student to perform endotracheal intubations, emergency tracheotomy, and other advanced airway techniques as well as insertion of chest tubes, emergency thoracentesis and other life saving maneuvers. Practice on manikins and possibly live animal labs are planned. Lec 2, Lab 2, Cr 3.	Academic
ECCS 3340	Critical Care Pharmacology	This course is designed to provide the learner with a fundamental knowledge of the actions and therapeutic uses of drugs. The topics covered will include basic principles of drug action, pharmacokinetics, autonomic and cardiovascular pharmacology, neuropharmacology, toxicology, endocrine pharmacology, and respiratory tract pharmacology. Lec 3, Cr 3.	Academic
ECCS 3355	Electrocardiography	A study of the fundamentals of electrocardiology with emphasis on the role of the 12-lead ECG in and out of hospital medical care. The purpose of this course is to teach in systematic-analytical approach to rapid 12-lead interpretation. Topics begin with cardiac anatomy and physiology and progress to the level of recognizing the classic 12-lead and multi-lead ECG patterns. Lec 3, Cr 3.	Academic
ECCS 4310	Invasive Hemodynamic Procedures	The learner will be prepared to monitor hemodymanic data in the intensive care unit. Topics will cover arterial line insertion, aortic counter pulsation, insertion of balloon tip pulmonary artery catheter. The physiology and interpretation of pathology will also be reviewed. Lec 2, Lab 2, Cr 3.	Academic
ECED 4385	Growth and Development of Young Children	Emphasis on developmental and growth characteristics from birth through the eighth year. Cultural dynamics of family relationships and the family and school are emphasized. Observations, reading, lectures, class activities include daycare as well as TEA accredited schools. Environments will be developmentally appropriate inclusion models. Lec 3, Cr 3.	Academic
ECED 4389	The Environment and Early Childhood	The course focuses on an examination of appropriate learning environments for young children. It includes the relationship between curriculum and the design by addressing issues of development, assessment, classroom guidance, interdisciplinary lesson planning, culture, language and special needs. Lec 3, Cr 3.	Academic
ECON 2301	Macroeconomics	Introduction to national income analysis. Topics include an introduction to supply and demand analysis! the economic functions of government! the determinants of output, employment, and the general price level! national income accounting! classical, Keynesian and neoclassical models of the economy! the Federal Reserve! fiscal and monetary policy! the balance of payments. BBA degrees require that this course be passed with a minimum grade of "C" Lec 3, Cr 3.	Academic

ECON 2302	Microeconomics	Introduction to price theory. Topics include elasticity! consumer behavior, the behavior of the firm under perfect and imperfect competition, government regulation, natural resources, labor, international trade, and the distribution of income and wealth. Open only to students who have completed all required development courses in reading and/or writing as assessed by the University. BBA degrees require that this course be passed with a minimum grade of "C" Lec 3, Cr 3.	Academic
ECOTU 2309	Herpetology	This course is an in-depth study of amphibians and reptiles. A good knowledge of South Texas herpetofauna will be emphasized. Special study of venomous snakes and current snakebite treatment will be surveyed. Lec 3, Lab 3, Cr 3.	Academic
ECOTU 2314	Plant Taxonomy	This course deals with the identification of vascular plants with emphasis on native flowering plants. Lec 3, Lab 3, Cr 3.	Academic
ECOTU 2327	Texas Coastal Ecology	This course examines the major near shore habitats and communities of the western Gulf of Mexico, including beaches, sand dunes, estuaries, salt marshes, mud flats, sea grass meadows, and rocky shores. Emphasis is places on directed, field-oriented, group and/or individual research projects. Lec 3, Lab 3, Cr 3.	Academic
ECOTU 2350	Ornithology	This lab emphasizes identification, field surveys/counts, and taxonomy of South Texas and Northeast Mexican birds. Lec 3, Lab 3, Cr 3.	Academic
ECOTU 2370	Mammalogy	This course examines the diagnostic characteristics of mammals and their evolution, surveys living mammalian orders, and investigates broad biological concepts and special topics, especially as it relates to mammals of Southern Texas and Northeastern Mexico. Lec 3, Lab 3, Cr 3.	Academic
EDBI 4608	Student Teaching E.C-6th Bilingual Generalist	Student teaching occurs in a bilingual classroom under the guidance of EC-6th grade classroom teachers and a university supervisor. Enhancing professional development and preparation for state required certification examinations will be emphasized in a seminar format. Internship 6, Cr 6.	Academic
EDCI 3314	Methods in Teaching Science and Mathematics	The course provides knowledge and application of science and mathematics teaching methods for diverse student populations. Instructional methods of teaching mathematics and science will integrate content from physical, life, earth, and space sciences and mathematics content from algebra, geometry, and numeracy. A laboratory and field component is included. Lec 3, Cr 3.	Academic
EDCI 3336	Topics in Education	This course will emphasize topics related to education and pedagogy. Topics will vary and may be repeated for elective credit. Lec 3, Cr 3.	Academic
EDCI 4311	Student Teaching E.C- 6th	The student teacher will have the opportunity to design and implement instruction, and practice classroom management techniques. Weekly seminars and individual conferences are required. Students will be assigned a half-semester, all day, Monday through Friday placement. This course is required for all level certifications. Lec 1, Cr 3.	Academic
EDCI 4315	Principles of Teaching Workshop for Elementary/ Secondary Teachers	This workshop course is designed to give people entering teaching a theoretical and practical base for their introduction to teaching and for planning learning activities. Special permission must be given before enrollment in the course. Lec 3, Cr 3.	Academic
EDCI 4322	Human Development and Instruction	Major theories of the teaching-learning process and human growth and development as they relate to the EC-4 learner will be addressed. Areas emphasized are cultural differences, needs of special learners, developmental appropriateness, and linguistically diverse populations. Lec 3, Cr 3.	Academic
EDCI 4324	Designing Instruction and Assessment to Promote Student Learning	Know ledge of student diversity and learning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. To be taken concurrently with EDCI 4325. Field-based course. Lec 3, Cr 3.	Academic
EDCI 4325	Implementing Responsive Instruction and Assessment	This class emphasizes communication, instruction and assessment strategies, and technology. This knowledge will be implemented to create responsive instruction and assessment which actively engages all students in the learning process. Lec 3, Cr 3.	Academic
EDCI 4328	Method/Tech of Teach Music Elementary	This general music course provides an introduction to the following elementary music methods and approaches: Kodaly, Orff, Delacroze, Music memory, and CM (Comprehensive Musicianship). It also surveys the national standards in Music Education and the National Assessment of Music Education in the public schools. Lec 3, Cr 3.	Academic

EDCI 4336	Topics in Education	This course covers current issues and topics related to the field of education. Field or lab work may be required. The course may be repeated twice for credit for a total of 9 semester credit hours when the topic is different. Lec 3, Cr 3.	Academic
EDCI 4608	Student Teaching E.C-6th E.S.L Generalist	Student teaching occurs in an ESL classroom under the guidance of EC-6th grade classroom teachers and a university supervisor. Enhancing professional development and preparation for state required certification examinations will be emphasized in a seminar format. Lec 3, Cr 6.	Academic
EDCI 4620	Internship Elementary / Secondary Schools	Full-time supervised classroom teaching with seminars designed to relate the classroom teaching/ learning experience to corresponding educational theory. Applicable to both elementary and secondary majors. May not substitute for student teaching. Lec 1, Cr 6.	Academic
EDEC 4389	The Environment and Early Childhood	This focuses on an examination of appropriate learning environments for young children. It includes the relationship between curriculum and the design by addressing issues of development, assessment, classroom guidance, interdisciplinary lesson planning, culture, language and special needs. Lec 3, Cr 3.	Academic
EDLI 3310	Emergent Literacy for E.S.L Learners: Early Childhood - 1st Grade	Early development of oral language, phonological and phonemic awareness, the alphabetic principle, and writing will be explored in this course. Students will tutor young children in these areas based multi-sensory, developmentally appropriate, and English as a second language principles. Field experience required. Lec 3, Cr 3.	Academic
EDLI 3311	Beginning English Literacy for English Language Learners	Students focus on the early foundations of oral language, reading and writing development. The course will include the teaching of phonological awareness, phonics, vocabulary, and comprehension. Instructional strategies for English language learners are incorporated. Lec 3, Cr 3.	Academic
EDLI 3323	Beginning Literacy for E.S.L Learners: 2nd-4th Grades	Students focus on word analysis and decoding, reading fluency, reading comprehension, and writing conventions. Students plan and present literacy lessons using techniques appropriate for English language learners. Field experience required. Lec 3, Cr 3	Academic
EDLI 3324	Fluent Literacy 3rd-4th Grades	Students focus on reading, writing, oral language, and viewing to learn. Students plan and teach research-based lessons using reading, writing, and multicultural children's literature across the curriculum. They apply comprehension strategies, the written conventions, and teaching methods for English as a Second Language in designing lessons. Field experience is required. Lec 3, Cr 3.	Academic
EDLI 3325	Beginning Literacy for E.S.L. Learners: 2nd-4th Grades	Students focus on instructional strategies for teaching, reading, writing, viewing and presenting across the content areas, including fluency, comprehension and vocabulary. Students will learn how to teach inquiry and study skills. Instructional strategies for English language learners are incorporated. Lec 3, Cr 3.	Academic
EDLI 3329	E.S.L Literacy and Assessment	Participants will learn the basic principles of assessment and use a variety of literacy assessment practices to plan and implement literacy instruction for young ESL learners. Evaluation of strengths, needs, and interests using standardized and alternative assessments will be included. Field experience is required. Lec 3, Cr 3.	Academic
EDLI 3340	E.S.L Language Arts and Literature	This class focuses on developing the language arts skills of English language learners through reading, writing, listening, viewing and representing. The reading/writing workshop model includes the writing process, reading quality children's literature in various genres, and responding to the literature. Lec 3, Cr 3.	Academic
EDLI 3341	Children's Literature	A survey of books and related materials for the elementary/middle school age! principles of book selection! intensive reading of books required. Lec 3, Cr 3.	Academic
EDLI 3343	Foundation of Beginning Literacy	Students learn the importance of oral language and early literacy development and apply explicit instructional strategies. Students design and teach mini-lessons using a wide range of fiction and nonfiction for beginning readers. Field-based experience is required. Lec 3, Cr 3.	Academic
EDLI 4329	Literacy and Assessment	Participants understand the basic principles of formative and summative assessment and use a variety of literacy assessment practices to plan and implement instruction for all students. Evaluation of strengths, needs and interests using standardized and alternative assessment will be included. Lec 3, Cr 3	Academic

EDLI 4347	Teaching Language Arts to Students Different Needs	This course will help teachers meet the different instructional needs of students, including English Language learners and students with disabilities. Teachers will learn to identify and understand individual variations in oral language, reading, speaking, writing, viewing and representing. Field-based experience is required. Lec 3, Cr 3.	Academic
EDLI 4350	Adolescent Literature	This course focuses on different genres of literature in multicultural society. It highlights purposes for reading, including reading for pleasure and lifelong learning. Additionally, it emphasizes modeling reading and adapting materials for all learners. Ways to enhance comprehension before, during and after reading are emphasized. Field-based experience is required. Lec 3, Cr 3.	Academic
EDLI 4351	Content Area Literacy	This course focuses on explicit strategies to teach and monitor content area reading comprehension, vocabulary development, and study skills for all learners. Factors influencing reading comprehension, as well as a variety of reading materials and formats, will be highlighted. Field-based experience is required. Lec 3, Cr 3.	Academic
EDLI 4367	Teaching Read to the English Language Learner	This course offers the student the opportunity to develop knowledge and instructional strategies for teaching reading to students of diverse cultural/linguistic backgrounds. Special emphasis will be placed on developing oral language proficiency as a prerequisite skill to reading and on instructional strategies designed specifically to meet the needs of such learners. Lec 3, Cr 3.	Academic
EDMG 4322	Human Development and Instruction	Major theories of the teaching-learning process and human growth and development as they relate to the middle grade learner will be addressed. Areas emphasized are cultural differences, needs of special learners, developmental appropriateness, and linguistically diverse populations. Field experience required. Lec 3, Cr 3.	Academic
EDMG 4324	Designing Instruction and Assessment to Promote Student Learning	Knowledge of students, learning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. Field-based course. Lec 3, Cr 3.	Academic
EDMG 4325	Implementing Responsive Instruction and Assessment	This class emphasizes communication, instruction and assessment strategies, and technology. This knowledge will be implemented to create responsive instruction and assessment which actively engages all students in the learning process. Field-based course. Lec 3, Cr 3.	Academic
EDMG 4377	Teaching Science in 4-8 Classrooms	An intensive examination of various strategies and techniques, specifically related to teaching 4-8 school science. The course will provide a foundation in learning theories, assessment techniques, teaching with various tools, and designing and implementing mathematics lessons for a diverse student population. Lec 3, Cr 3.	Academic
EDMG 4378	Teaching Mathematics in 4-8 Classrooms	An intensive examination of various strategies and techniques, specifically related to teaching 4-8 school mathematics. This course will provide a foundation in learning theories, assessment techniques, teaching with various tools, and designing and implementing mathematics lessons for a diverse student population. Lec 3, Cr 3.	Academic
EDMG 4648	Student Teaching in the Middle Grade	This course places students in the middle grades classroom settings as a practicing teacher to demonstrate competencies. The student teacher will have the opportunity to design and implement instruction, and practice classroom management techniques. Weekly seminars and individual conferences are required. Students will be assigned a full-semester, all day, Monday thru Friday placement. Lec 1, Cr 6	Academic
EDSC 4322	Human Development and Instruction	Major theories of the teaching-learning process and human growth and development as they relate to the secondary student will be addressed. Areas emphasized are cultural differences, needs of special learners, developmental appropriateness, and linguistically diverse populations. Field experience required. Lec 3, Cr 3.	Academic
EDSC 4324	Designing Instruction and Assessment to Promote Student Learning	Know ledge of students, leaning goals and objectives will be emphasized. This knowledge will be applied to effective instructional planning and assessment for all students. Field-based course. Lec 3, Cr 3.	Academic
EDSC 4325	Implementing Responsive Instruction and Assessment	This class emphasizes communication, instruction and assessment strategies, and technology. This knowledge will be implemented to create responsive instruction and assessment which actively engages all students in the learning process. Filed-based course. Lec 3, Cr 3.	Academic

EDSC 4329	Method/Technology of Teach Music Secondary School	This course provides an introduction to basic choral literature for intermediate and secondary school choirs, small ensemble literature, solo vocal repertoire: jazz/show choir choreography, concert programming, sight reading methods, and texts. It also surveys the rules, regulations and competitions of the University Interscholastic League and the Texas Choral Directors Association. Lec 3, Cr 3	Academic
EDSC 4378	Teaching Math in 8-12 Classrooms	This course exams issues, strategies and techniques, specifically related to teaching 8-12 school mathematics. The course also provides a foundation in learning theories, assessment techniques, teaching with various tools, and designing and implementing mathematics lessons for a diverse students population. Lec 3, Cr 3	Academic
EDSC 4379	Teaching Science in 8-12 Classroom	This course allows students to synthesize learning, the code of ethics, history and philosophy of education and legal issues in education. Emphasis is also given to classroom management and motivation. This course will also focus on characteristics and assessment requirements of students with special needs in an inclusive setting. Current issues dealing with the assessment of diverse learners will be addressed. A minimum of six hours of field experience per week is required. Lec 3, Cr 3.	Academic
EDSC 4398	Student Teaching All Level	This course places students in the 8-12 classroom settings as a practicing teacher to demonstrate teacher competencies. The student teacher will have the opportunity to design and implement instruction, and practice classroom management techniques. Weekly seminars and individual conferences are required. Students will be assigned a full-semester, all-day, Monday thru Friday placement and must be enrolled in EDCI 4311. Lec 1, Cr 3	Academic
EDSC 4641	Student Teaching, Secondary	Student teaching for one teaching field of 36 hours requires a complete semester of full-day student teaching in an approved, accredited school, and weekly seminars. Lec 3, Cr 6.	Academic
EDSL 4306	Content Area Method in E.S.L Classroom	This course focuses on the current methods and theories of planning and teaching elementary math, science, and social studies or English language learners with a strong emphasis on an interdisciplinary approach to Instruction. Linguistic and cognitive issues for language minority students are addressed. Field-experience is required. Lec 3, Cr 3.	Academic
EDSL 4307	Foundations of Bilingual/E.S.L	Students will learn the foundations of bilingual and English as a Second Language programs. Current research on first and second language acquisition, bilingual and ESL programs, theories and models is emphasized. Field experience required. Lec 3, Cr 3	Academic
EDTC 3310	Introduction to Educational Technology	This course provides an introduction to the field of educational technology and its impact on teaching and learning. Historical and current perspectives are examined, as well as emerging trends and issues. The application of innovative instructional technologies is introduced in this project-based course. Lec 3, Cr 3.	Academic
EDTC 3320	Instructional Design for the Corporate Trainer	This train-the-trainer course introduces the learner to the principles of instructional design. Students will explore the complexities of designing instruction in the context of corporate training environments. Students will learn classic ID theory and models and apply these theories in a real context through a major design project. Lec 3, Cr 3.	Academic
EDTC 3321	Computer/Web-Based Training	This course provides with the skills necessary to create effective computer/web-based training programs based on proven instructional design concepts. Lec 3, Cr 3.	Academic
EDTC 3323	Designing Instructional Multimedia	This course focuses on the development of skills using the latest multimedia tools for instructional technology training. Significant attention is made to interface design, message design, and the appropriate matching of media tools with specific goals and contexts. Lec 3, Cr 3.	Academic
EDTC 3325	Computer Mediated Communication and Collaboration	The course focuses on the use of computer-mediated communication (CMC) and computer-supported collaboration learning (CSCL) in online learning environment. Students will explore, asses, and utilize a variety of current and emerging Web 2.0 technologies to collaborate, share and deliver effective instructional resources and instruction to virtual learners. Lec 3, Cr 3.	Academic
EDTC 3332	Application of Instructional Technology	Students will combine skills and concepts to generate a web/computer-based training solution. Guided observation and practice in the applications of instructional technology to a specified training/ educational setting are emphasized. Lec 3, Cr 3.	Academic

EDUC 1301	Introduction to the Teaching Profession	This course introduces students to education in society by analyzing historical, social, political, economic, cultural, global and legal issues in education. Lec 3, Cr 3.	Academic
EDUC 2301	Introduction of Special Programs	This education course introduces students to issues related to characteristics of special needs populations as well as classroom strategies for instruction of diverse populations. Students will also be introduced to the legal issues related to students with special needs. Field experience required. Lec 3, Cr. 3	Academic
EDUCU 2303	Technology in Education	Students will understand the use of technology applications in classrooms instruction and evaluation. They will use technology as media to enhance instruction in all content areas. Using technology as a learning tool is emphasized. Lec 3, Cr 3.	Academic
EECT 2439	Communications Circuits	Topics include the study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation, with a discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Lec 3, Lab 3, Cr 4.	Technical
ELET 3314	Instrumentation and Control	Computer-based instrumentation and control systems including transducers, sensors, signal conversion and conditioning, amplification, filtering and offsetting. Lec 2, Lab 3, Cr 3	Academic
ELET 3410	Electronics II	This course is the second course of a two-semester electronics sequence. The course begins with a study of bipolar junction transistor (BJT) amplifier circuit configurations. Other transistor types, including FET and MOS, are then studied with circuit applications. Differential amplifiers are built and studied, leading to a study of integrated operational amplifiers (OPAMPS) and applications. Active filters are studied and built. Lec 3, Lab 3, Cr 4.	Academic
ELET 3411	Electromagnetics and High Frequency Systems	Electromagnetics and High Frequency Systems deals with high frequency concepts including topics in basic electromagnetics, transmission lines, matrix characterization, antennas, and RF circuit design! applications including wireless communication systems, satellite communication systems, passive and active microwave circuit design, and high frequency PCB (Printed Circuit Board) layout. Lec 3, Lab 3, Cr 4.	Academic
ELET 3412	Introduction to Microprocessors	Architecture, hardware signals, instruction sets, addressing modes and assembly language programming on 16 and 32 bit processors. Topics include memory and serial and parallel I/O interfacing, wait state analysis, subroutine and interrupt processing. (Signal conditioning, A/D & D/A Data Communication) Lec 3, Lab 3, Cr 4.	Technical
ELET 3413	Microprocessor Interfacing	Techniques for system development using microprocessors. Hardware interfacing and C language programming of microprocessor-based data acquisition and control systems. Lec 3, Lab 3, Cr 4.	Academic
ELET 3424	Power Electronics	Power Electronics deals with power diodes and transistors! static converters! DC power supplies! power transistor circuits! silicon-controlled rectifiers! Classical and modern forced-commutation inverters! choppers cycloconverters, and applications in power. Lec 3, Lab 3, Cr 4.	Academic
ELET 3431	Introduction to Telecommunications	Introduction to telecommunications principles including analysis of modulation and multiplexing, transmission media, switching techniques and modern communications models and standards. Lec 3, Lab 3, Cr 4.	Academic
ELET 3440	Electric Power and Machinery	This course introduces basic concepts of electric power generation, utilization, and power networks. Modeling of power system components are presented. Power systems functions and issues are presented and discussed. The associated laboratory will introduce power instrumentation and explore power factor correction, transformers, synchronous machines and induction machines. Lec 3, Lab 3, Cr 4.	Academic
ELET 3441	Digital Systems	The main goal of this course is the design and analysis of digital circuits using Hardware Definition Language and CAD programs. Students will develop detailed understanding of advanced logic and system synthesis and optimization algorithms as they create operational systems in the laboratory and interface them with analog external circuits. Lec 3, Lab 3, Cr 4.	Academic
ELET 4350	Special Topics: Electronic Engineering Technology Senior Level	A special topic is offered as an elective in electronic engineering technology as the senior level. Different sections may cover different topics in a semester. Under special topics, courses related to new developments in the area of electronic engineering technology will be offered. Lec 3, Cr 3.	Academic
ELET 4423	Control Systems	Study of the classical closed-loop control systems . Major topics include Laplace and z-transforms, second order plants, compensation, proportional-integral-derivative control, continuous and discreet time domain analysis and design and computer-based design and analytical tools. Lec 3, Lab 3, Cr 4.	Academic

ELET 4424	Power Distribution	General considerations in the transmission and distribution of electrical energy as related to power systems. Topics will also include survey of commercially-available components and systems, safety requirements and testing techniques. Lec 3, Lab 3, Cr 4.	Academic
ELETU 2201	Fabrication and Instrumentation Lab	Fabrication and Instrumentation Lab will introduce students to electrical fabrication and instrumentation subjects. Topics include fabrication, test, and trouble shooting of an electronic circuit! component identification and electronic assembly on PCB, which includes lead cutting, bending and soldering! use of a voltmeter, ohmmeter, oscilloscope, and signal generator. Lab 6, Cr 2.	Academic
ELETU 2402	Linear Circuits I	Signal and device models and laws used in the analysis of linear circuits are introduced. Topics include Ohm's Law, Kirchoff's Laws, the power law, mode and mesh analysis, superposition. Thevinnin and Norton equivalents, phasor representation, Laplace transform analysis, and frequency-and-s-domain analysis, including pole/zero plots and transfer functions. Lec 3, Lab 3, Cr 4.	Academic
ELETU 2410	Electronics I: Semiconductor Devices	Operational amplifiers (Op-amp), the electrical characteristics of silicon, and operation of bipolar junction diodes. Metal-Oxide Field Effect Transistor are the main topics of this course. Op-amp amplifier, diode, and transistor circuits and applications are described, built, and investigated both in the classroom and in the laboratory. Lec 3, Lab 3, Cr 3.	Academic
ELPT 1311	Basic Electrical Theory	Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Students will explain atomic structure and basic electrical values, calculate values for circuit combination and voltage drop, and utilize electrical measuring instruments typical to the electrical trade. Lec 2, Lab 4, Cr 3.	Technical
ELPT 1315	Electrical Calculations I	Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, and applied geometry. Lec 2, Lab 2, Cr 3.	Technical
ELPT 1320	Fundamentals of Electricity II	This course introduced alternating current (AC), including AC voltage, frequency, mechanical and electrical degrees, wareforms, resistors, capacitors, and inductors. Lec 2,Lab 3, Cr 3.	Technical
ELPT 1325	National Electrical Code I	This course covers knowledge of the National Electrical Code. Emphasis will be on wiring design, protection, methods, materials, equipment, and basic calculations. Lec 2, Lab 2, Cr 3	Technical
ELPT 1329	Residential Wiring	This course provides instruction and practice in wiring methods used in the construction of single family, two family and multiple-family dwellings. Students will compute in the circuit sizes needed for the installation of branch circuits, feeders, and service entrance conductors, demonstrate the proper installation of wiring devices, grounding systems, and other residential wiring systems, verifying that all work is performed in accordance to electrical codes. Lec 2, Lab 4, Cr 3.	Technical
ELPT 1341	Motor Control	This course covers the operating principles of solid-state and conventional controls along with their practical applications, including braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Lec 2, lab 4, Cr 3.	Technical
ELPT 1345	Commercial Wiring	This course provides instruction and practice in commercial wiring methods. Students will interpret prints/drawings, computer the circuit sizes and over-current protection for branch circuits, feeders, and service entrance conductors, explain the proper installation of wiring devices according to electrical codes, demonstrate grounding methods, and identify commercial wiring methods conduit bending. Lec 2, Lab 4, Cr 3.	Technical
ELPT 1357	Industrial Wiring	This course covers the wiring methods used for industrial installations, including motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures. Lec 2, Lab 2, Cr 3.	Technical
ELPT 1364	Practicum	This course provides for practical general training and experiences in the workplace. The college with the employer develops and documents and individualized plan for the student. The plan relates the workplace training and experiences to students' general and technical course of study. The guided external experiences may be for pay or no pay. Lec 336, Cr 3.	Technical
ELPT 2319	Programmable Logic Controllers I	This course covers the fundamental concepts of programmable logic controllers, principles of operations, and numbering systems as applied to electrical controls. Lec 2, Lab 3, Cr 3.	Technical
ELPT 2323	Transformers	Transformer types, construction, connections, protection, grounding, and associated safety procedures are covered. Lec 2, Lab 2, Cr 3	Technical

ELPT 2355	Programmable Logic Controllers II	This course covers advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls. Lec 2, Lab 2, Cr 3.	Technical
ELPT 2405	Motors and Transformers	Topic include the operation of single-and three-phase motors and transformers, as well as transformer banking, power factor correction, and protective devices. Lec 3, Lab 3, Cr 4.	Technical
ELPT 2455	Programmable Logic Controllers II	This course covers advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls. Lec 3, Lab 3, Cr 4.	Technical
ELTN 1343	Electrical Troubleshooting	Maintenance, operation, troubleshooting, and repair of circuits of various residential, commercial, and industrial electrical systems. Lec 2, Lab 2, Cr 3.	Technical
ELTN 1391	Special Topic in Electrician: Blueprint Reading	Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinents to the technology or occupation and relevant to the professional development of the student. Lec 2, Lab 4, Cr 3.	Technical
EMSP 1166	Practicum- Emergency Medical Technician I	The Practicum - Emergency Medical Technician I course is a practical and general workplace training supported by an individualized learning plan, developed by the employer, college, and student. Practicum 7, Cr 1.	Technical
EMSP 1266	Practicum/EMT/Technician I	Practical general training and experiences in the workplace. The college with the employer develops and documents and individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Lab 16, Cr 2.	Technical
EMSP 1267	Practicum/E.M.T/ Technician II	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. This course may be repeated if topics and learning outcomes vary. Practicum 14, Cr 2.	Technical
EMSP 1355	Trauma Management	The Trauma Management Course is a detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Lec 2, Lab 2, Cr 3.	Technical
EMSP 1356	Patient Assessment and Airway Management	A detailed study of knowledge and skills required to reach competence in performing patient assessment and airway management. Lec 2, Lab 2, Cr 3.	Technical
EMSP 1401	Emergency Medical Technician-Basic	Introduction to the level of Emergency Medical Technician (EMT) - Basic. Includes all the skills necessary to provide emergency medical care at a basic level with an ambulance service or other specialized services. Lec 3, Lab 4, Cr 4.	Technical
EMSP 1456	Pt Assessment and Airway Management	A detailed study of knowledge and skills required to reach competence in performing patient assessment and airway management. Lec 3, Lab 3, Cr 4.	Technical
EMSP 1501	Emergency Medical Technician- Basic	Basic course is an introduction to the level of Emergency Medical Technician (EMT) - Basic. It includes all the skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services. Lec 4, Lab 3, Cr 5.	Technical
EMSP 2243	Assessment Based Management	This course is a comprehensive, assessment-based Patient care management. Assessment based Management includes specific care when dealing with pediatric, adult, geriatric, and special needs patients. Lec 1, Lab 2, Cr 2.	Technical
EMSP 2266	Practicum/E.M.T/Technician III	Practical general training and experiences in the workplace. The college with the employer develops and documents and individualized plan for the students. The plan relates the workplace training and experiences to the student's general and technical course of study. This study may be repeated if topics and learning outcomes vary. Practicum 14, Cr 2.	Technical
EMSP 2267	Practicum/E.M.T/Technician IV	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. This course may be repeated if topics and learning outcomes vary. Practicum 14, Cr 2.	Technical
EMSP 2268	Practicum- E.M.T/ Technician V	The Practicum- Emergency Medical Technician V course is a practical and general workplace training supported by an individualized learning plan, developed by the employer, college, and student. Practicum 14, Cr 2.	Technical
EMSP 2330	Special Populations	This course is a detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. Lec 2, Lab 2, Cr 3.	Technical
EMSP 2338	E.M.S. Operations	This course is a detailed study of the knowledge and skills to safely manage the scene of an emergency. Lec 2, Lab 2, Cr 3.	Technical

EMSP 2348	Emergency Pharmacology	The Emergency Pharmacology course is a comprehensive course covering all aspects of the utilization of medications in treating emergency situations. This course is designed to compliment Cardiology, Special Populations, and Medical Emergency courses. Lec 3, Cr 3.	Technical
EMSP 2434	Medical Emergencies	This course is a detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Lec 3, Lab 2, Cr 4.	Technical
EMSP 2444	Cardiology	A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of patients with cardiac emergencies. Lec 3, Lab 2, Cr 4.	Technical
ENGL 0320	College Writing Skills I	This course focuses on fundamentals of grammar, mechanics and organization are stressed in the production of clear sentences, paragraphs, and multi-paragraph themes. Students are required to attend both course itself and a STING support tutorial in order to receive credit for College Writing Skills I. Lec 3, Cr 3.	Academic
ENGL 0321	College Writing Skills II	This course focuses on the continuation of practice in fundamental skills (audience analysis, organization, and effective sentences) begun in ENGL 0320. Students are required to attend both the course itself and STING support tutorial in order to receive credit for College Writing Skills II. Lec 3, Cr 3.	Academic
ENGL 1301	Composition I	Expository writing with emphasis on thinking and composing skills required to write full length essays on topics of personal experience, current issues, and material in published essays. Students will practice some research skills and produce a documented paper employing in-text citations. Lec 3, Cr 3.	Academic
ENGL 1302	Composition II	This course is a continuation of ENGL 1301 and emphasizes analytical writing in response to literature. A research essay is required. Lec 3, Cr 3.	Academic
ENGL 2332	World Literature to 1660	Studies of English translations of selected masterpieces from ancient civilizations through the period of the Renaissance. Additional readings from classics of the English-speaking people. Research project required. Lec 3, Cr 3.	Academic
ENGL 2333	World Literature Since 1660	Studies of English translations of selected continental European masterpieces from the time of Renaissance to the modern period. Parallel readings from English and American literature. Research project required. Lec 3, Cr 3.	Academic
ENGL 3301	Medieval Literature	A study of various types of medieval literature, including epic, romance, and allegory, with special emphasis on Middle English writers. Lec 3, Cr 3.	Academic
ENGL 3302	Literary Analysis	A course introducing students to the methodologies and techniques of reading and writing about literature and literary criticism through the study of works representative of various genres from different literary periods. Lec 3, Cr 3.	Academic
ENGL 3304	Eighteenth Century British Literature	A study of the major works of English writers of the Long Eighteenth Century, including Dryden, Congreve, Pope, Swift, Sterne, and Johnson. Lec 3, Cr 3.	Academic
ENGL 3306	British Novel to 1900	Chronological study of the development of the English novel from Defoe and Fielding to Hardy with special emphasis on significant 19th century novelists such as Thackeray, Eliot, Dickens, and Austen. Lec 3, Cr 3	Academic
ENGL 3309	Major British Authors	A course that introduces students to the characteristics of major historical periods through the study of representative British literary works. Lec 3, Cr 3.	Academic
ENGL 3311	Technical Communication	This course focuses on technical writing adapted to help students develop professional communication skills in the workplace environment. Topics for reports, statistical tables and graphs, business letters, memoranda and primary and secondary research are normally related to student's field of study. Lec 3, Cr 3.	Academic
ENGL 3312	Survey of American Literature	A chronological study of the principal authors, their works and the trends in American literature, from the Colonial period to the Civil War. Lec 3, Cr 3	Academic
ENGL 3313	Survey of American Literature	A chronological study of the principal authors, their works and trends in American literature from the Civil War to the present. Lec 3, Cr 3	Academic
ENGL 3319	Introduction to Descriptive Linguistics	An introduction to linguistic science, primarily phonetics, phonology, syntax, morphology, and the history of English. Lec 3, Cr 3	Academic
ENGL 3322	Business Communications	This course provides an introduction to the fundamentals of business writing, including memos, reports, and proposals. Lec 3, Cr 3.	Academic
ENGL 3324	Victorian and Modern Poetry	A study of British poetry from 1832 to the present. Lec 3, Cr 3	Academic
ENGL 3330	English Grammar	Theories of grammar with practical applications. Lec 3, Cr 3	Academic
ENGL 3331	History of the English Language	A study of the history and development of the English language from the Anglo-Saxon period into the 20th century. Lec 3, Cr 3.	Academic
ENGL 3343	American Realism and Naturalism	A study of American writing from 1865 to 1925 with an emphasis on fictions, Dreiser, and Anderson. Lec 3, Cr 3.	Academic

ENGL 3344	American Poetry to 1900	A study of American poetry from Anne Bradstreet to Emily Dickinson. Lec 3, Cr 3	Academic
ENGL 3346	American Novel	A study of major American novelists and the genre since 1900. Lec 3, Cr 3	Academic
ENGL 4300	Special Topics in English	This course will cover a variety of topics related to English studies and may be repeated once for credit as topics may vary. Lec 3, Cr 3.	Academic
ENGL 4301	Shakespeare	A study in representative plays in comedy, history , and tragedy. Lec 3, Cr 3.	Academic
ENGL 4316	Mexican American Literature	A study of the literature by and about Mexican Americans, with emphasis on the literary techniques and the culture reflected in this literature. Lec 3, Cr 3.	Academic
ENGL 4317	Literature by Women	A critical study of literature written by women, focusing on works from 1901 to the present. The course will introduce women's literature and the female literary tradition that has coexisted with, revised, and influenced male models. Lec 3, Cr 3	Academic
ENGL 4318	Science Fiction	A chronological survey of science fiction through a critical study of selected short stories and novels in their literary, social, and philosophical contexts. This course will examine definitions and prototypes of the genre. Lec 3, Cr 3	Academic
ENGL 4322	Creative Writing I	A course in writing poetry. Students will explore the elements of poetry by writing original poems and examining published poems. At the professor's discretion, students may have the opportunities to practice writing in other genres, such as short fiction and short drama. Lec 3, Cr 3.	Academic
ENGL 4323	Creative Writing II	A course in writing short fiction. Students will explore the elements of short fiction by writing original stories and examining published stories. At the professor's discretion, students may have the opportunity to practice writing in other genres, such as poetry and short drama. Lec 3, Cr 3.	Academic
ENGL 4324	Argument and Persuasion	A course that emphasizes the use of logical conventions and analysis of other rhetorical elements to produce persuasive essays on the current cultural and ethical concerns. Lec 3, Cr 3	Academic
ENGL 4325	Composition Techniques	An advanced course in formal English compositions tressing effective communication with special emphasis on the exposition of abstract ideas and internal logic. Lec 3, Cr 3	Academic
ENGL 4328	Introduction to English As a Second Language	A study of the process of learning English as a second language. Special attention is given to problems encountered in reading, writing, and comprehending English. Lec 3, Cr 3	Academic
ENGL 4350	English Studies	A capstone course for senior English majors aimed at integrating students' knowledge of language, literature, and composition. The course also provides guidance in assembling a portfolio and in preparing for the state teacher certification exam in English. Lec 3, Cr 3	Academic
ENGR 1101	Introduction to Engineering	Introduction to engineering as a discipline and a profession. The course includes instruction in the application of mathematical and scientific principles to the solution of practical problems for the benefits of society. Lab 2, Cr 1.	Academic
ENGR 1201	Introduction to Engineering	Engineering as a career, considering the various fields of engineering, history, and professionalism . Basic engineering analysis and problem solving, introducing calculators and computers. Lec 2, Cr 2.	Academic
ENGR 1205	Engineering Graphics II	Introduction to spatial relationships, multiview projection and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Lec 1, Lab 3, Cr 2.	Academic
ENGR 1304	Engineering Graphics I	This course is an introduction to spatial relationships, multiview projection and sectioning, geometric dimensioning and tolerancing, graphical presentation of data, and fundamentals of computer graphics and solid modeling. Lec 2, Lab 3, Cr 3.	Academic
ENGR 2301	Engineering Mechanics I - Statics	This course is a calculus-based study of composition and resolution of focuses, equilibrium of forces system, friction, centroids, and moments of inertia. Lec 3, Cr 3.	Academic
ENGR 2302	Engineering Mechanics II - Dynamics	This course is a calculus-based study of dynamics of rigid bodies, force-mass-acceleration, work-energy, and impulse-momentum computation. Lec 3, Cr 3.	Academic
ENGR 2332	Mechanics of Materials	Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elestatic deflections in beams, combined loading, and combined stresses are the main topics of this course. Lec 2, Lab 3, Cr 3.	Academic
ENGR 3103	Thermodynamics Laboratory	This course includes experiments in laws of thermodynamics, heat transfer, and problem solving. Lab 3, Cr 1.	Academic
ENGR 3120	Linear Circuits Lab	This course provides additional laboratory study to electric circuits course. Lab topics include multimeter, Ohm's law, Kirchhoff's law, parallel and serial circuits, capacitors and inductors, methods of circuit analysis, and AC circuits. Lab 3, Cr 1.	Academic

ENGR 3303	Thermodynamics	The course introduces basic principles and applications of classical thermodynamics. The topics covered include basic concepts, zeroth, first and second laws of thermodynamic, thermodynamic properties of substance, and cycle analysis of some power and refrigeration systems. Lec 3, Cr 3.	Academic
ENGR 3304	Mechanics of Materials	This course is on stresses, deformations, stress-stain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Lec 3, Cr 3.	Academic
ENGR 3310	Mechatronics I	This course exposes students for the first time in the program to the combination of mechanical engineering, electronic control and systems thinking in the design of products and manufacturing processes. Lec 2, Lab 3, Cr 3.	Academic
ENGR 3320	Linear Circuits	Signal and device models and laws used in the analysis of linear circuits are introduced. Topics include Ohm's Law, Kirchoff's Laws, the power law, node and mesh analysis, superposition, Thevinin and Norton equivalents, phasor representation, Laplace transform analysis, and frequency- and s-domain analysis, including pole/zero plots and transfer functions. Lec 3, Cr 3.	Academic
ENGR 3405	Engineering Materials	This course is an introduction to the structure, properties, processing, destructive and non-destructive testing, and engineering applications of ferrous and non-ferrous metals, plastics, polymers, composites and ceramics. The laboratory includes mechanical and physical testing, metallographic procedures, heat treatment, surface treatment and failure analysis. An emphasis is placed on material selection, testing, and validation. Lec 3, Lab 3, Cr 4.	Academic
ENGR 3421	Electronics I	Operational amplifiers (Op-amp), the electrical characteristics of silicon, and operation of bipolar junction diodes. Metal-Oxide Field Effect Transistor are the main topics of this course. Op-amp amplifier, diode, and transistor circuits and applications are described, built, and investigated both in the classroom and in the laboratory. Lec 3, Lab 3, Cr 4.	Academic
ENGR 4122	Electronics II Laboratory	This is a laboratory course to accompany Electronics II with in-depth experimental studies of operational and discrete amplifiers.	Academic
ENGR 4242	Senior Design Project I	This course begins with project definition, task analysis and planning, and project control, for an industry-based major design project. It concludes with the beginning of work on the project. Lec 6, Cr 2.	Academic
ENGR 4243	Senior Design Project II	This course is the continuation of ENGR 4242. Completion of industry-based design project. Lec 6, Cr 2.	Academic
ENGR 4244	Senior Design Project	This course includes project definition, task analysis and planning, and project control, for an industry-based major design project. A second semester of the course includes implementation and completion of the project. This course may be taken two times for a total of four credit hours. Lec 6, Cr 2.	Academic
ENGR 4308	Design Graphics With Solid Modeling	This course is an introduction to special relationships, multiview projection and sectioning, geometric dimensioning and tolerancing, graphical presentation of data, and fundamentals of computer graphics, and solid modeling. Lec 3, Cr 3.	Academic
ENGR 4309	Mechanical Subsystem Design	This course deals with the selection and computer-aided graphical representation of mechanicals subsystems for the transmission of mechanical power and/or generation of mechanical motion. Component selection of gears, cams, belt and chain drives, clutches and transmissions will use data sources of contemporary manufacturers ranging from vendor catalogs to computerized databases. Lec 2, Lab 3, Cr 3.	Academic
ENGR 4310	Heat and Mass Transfer	This course provides an introduction to the fundamentals of heat and mass transfer processes. Topics include conduction, convection, and radiation heat transfer processes with various applications and diffusion mass transfer. Lec 3, Cr 3.	Academic
ENGR 4322	Electronics II	Electronics II deals with the analysis and design of complex analog integrated circuits(ICs). The course covers single stage IC amplifiers, differential and multistage amplifiers, feedback, frequency response, signal generators and an overview of output stages and power amplifiers. Lec 3, Cr 3.	Academic
ENGR 4326	Power Electronics	Power Electronics deals with power diodes and transistors! static converters! DC power suppliers! power transistor circuits! silicon-controlled rectifiers classical and modern forced-commutation inverters! choppers, cycloconverters, and applications in power. Lec 3, Cr 3.	Academic

ENGR 4343	Control Systems II	This course is the second part of a two-term sequence on modeling, analysis and control of dynamic systems. This second term emphasizes practical applications of control theory industry. Lec 3, Cr 3.	Academic
ENGR 4406	Mechanics III	This course introduces basic principles of fluid mechanics and its application. Topics include kinematics, hydrostatics, incompressible flow, integral and differential relations for control volumes, continuity and N-S equation, dimensional analysis, viscous flows in ducts, and boundary layer theory. Lec 3, Lab 3, Cr 4.	Academic
ENGR 4407	Manufacturing Process Technologies	This course is an introduction to manufacturing process including metal cutting, measurements and metrology, deformation processes, casting, welding, joining, and composites. Lec 3, Lab 3, Cr 3.	Academic
ENGR 4423	High Frequency Engineering	High Frequency Engineering deals thoroughly with the particular problems faced when working with microwave frequencies, from microwave devices to satellite communications. Lec 3, Lab 3, Cr 3.	Academic
ENGR 4424	Electric Power and Machinery	Topics of this course include: an overview of electronic power systems from energy sources through generation and distribution to end user motors, principles of electro-magnetism, analysis of three phase systems, and a selection of in-depth studies of transformers, induction and synchronous motors and generators, distribution fault analysis, and alternative energy. Lec 3, Lab 3, Cr 4.	Academic
ENGR 4425	Analog and Digital Communications	This course is an introduction to telecommunications principles including analysis of modulation and multiplexing, transmission media, switching techniques and modern communications models and standards. Lec 3, Lab 3, Cr 3.	Academic
ENGR 4441	Control Systems	This course exposes students to the solution of feedback control problems involving mechanical, thermal and electrical systems and their couplings via computational methods (math CAD and MATLAB) laboratory experimentation. Lec 3, Lab 3, Cr 4.	Academic
ENGR 4442	Control Systems I	This course is the first part of a two-term sequence on modeling, analysis and control of dynamic systems. It exposes students to the solution of problems involving mechanical, thermal and electrical systems and their couplings via computational methods and laboratory experimentation. Lec 3, Lab 3, Cr 3.	Academic
ENGR 4450	Computational Mechanics	This course is an introduction to numerical methods in engineering. It covers solutions of classical heat transfer and solid mechanics problems using the finite element method. Lec 3, Lab 2, Cr 4.	Academic
ENGRU 2310	Measurements and Instrumentation	This course deals with the theoretical basis for and practical implementation of the current state of the art in engineering measurement and instrumentation useful in mechanical and electrical engineering. Lec 2, Lab 3, Cr 3.	Academic
ENGT 1101	Introduction to Engineering Technology	An introduction to the concepts and tools of engineering technology, and engineering technology careers. Includes team based and individual projects in understanding mechanical systems, problem analysis, problem management and problem solving techniques, an introduction to computer usage, communications, visualization graphics and illustration, machine and hand shop tools and safe practices in machine, tool and lab usage. Lec 3, Cr 1.	Academic
ENGT 1407	Digital Fundamentals	Analysis, design, and simulation of combinational and sequential systems using: classical Boolean algebra techniques, laboratory hardware experiments and computer simulation. Introduction to programmable logic devices (PLD's) and application-specific integrated circuits using software tool to the design and analysis of facilitate learning digital concepts and hardware. Lec 3, Lab 3, Cr 4.	Academic
ENGT 1409	Introduction to Electrical Technology	Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's law, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Lec 3, Lab 3, Cr 4.	Academic
ENGT 2130	Engineering Communications	Application of modern computer tools to analysis and presentation of engineering and technical information. Emphasis on critical thinking techniques in group and communication settings. Lab 3, Cr 1.	Academic
ENGT 2303	Probability and Statistics	Introduction to concepts of variation, randomness, distribution analysis and probability theory with applications in quality control and reliability. Lec 3, Cr 3.	Academic
ENGT 3320	Engineering Economics	Analysis of the economic performance of Manufacturing systems, analysis of projects and selections from among alternatives. Covers cost classifications, profit and productivity, internal rate of return time value concepts. Lec 3, Cr 3.	Academic

ENGT 3424	Power Electronics		Academic
ENGT 4140	Classical Foundations	Classical writers of various cultures with a focus on those contributing to modern thought, especially that of science and technology, including Archimedes, Aeschylus, Thucydides, Newton, and others and examples of engineering and technical development in various cultures. Lec 4, Cr 4.	Academic
ENGT 4241	Senior Design Project I	Project definition, task analysis and planning, project control. Begins work on industry-based major design project. Lab 6, Cr 2.	Academic
ENGT 4242	Senior Design Project II	Continuation of ENGT 4241. Completion of industry-based design project. Lab 6, Cr 2.	Academic
ENGT 4350	Topics in Engineering Technology	Topics vary to meet student and employer needs. May be taken twice f or credit provided topics are different. Lec 3, Cr 3.	Academic
ENGTU 1407	Digital Fundamentals	Analysis, design, and simulation of combinational and sequential systems using: classical Boolean algebra techniques, laboratory hardware experiments and computer simulation. Introduction to programmable logic devices (PLD's) and application-specific integrated circuits using software tool to the design and analysis of facilitate learning digital concepts and hardware. Lec 3, Lab 3, Cr 4.	Academic
ENGTU 2407	Engineering Materials I	Instruction in the making and forming of steel and the classification of steel, cast iron, and aluminum. Topics include mechanical and physical properties, non-destructive testing principles of alloying, selection of metals, iron carbon diagrams, principles of hardening and tempering steel, and the metallurgical aspects of machining. Topics will also include an overview of properties and uses of polymers and ceramics. Lec 3, Lab 3, Cr 4.	Academic
ENGTU 2410	Introduction to Manufacturing Processes	Exploration of 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, process controls considerations, casting and injection molding. Lec 3, Lab 3, Cr 4.	Academic
ENTC 1191	Special Topics	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. Lec 1, Cr 1.	Technical
ENTR 3340	New Venture Creation and Innovation	The skills needed for evaluating and ensuring the success of a business opportunity include team building, organizing, planning, integrating, and persuading. The course will develop creativity and innovation skills through hands on learning to help students better identify, create and implement entrepreneurial solutions. Students will create a new product concept. Lec 3, Cr 3.	Academic
ENTR 4360	Entrepreneurial Finance	Topics covered include the development, implementation and control of financial plans, strategies and policies by owner-managers of small and medium sized firms, as well as the analysis of alternatives and decision making. Lec 3, Cr 3.	Academic
ENVR 1101	Introduction to Environmental Sciences Laboratory I	This course provides students an opportunity to learn practical applications for the basic principles learned in the Introduction to Environmental Science course ENVR 1301. Lab 3, Cr 1.	Academic
ENVR 1102	Introduction to Environmental Sciences Laboratory II	This course provides students an opportunity to learn practical applications for basic principles learned in the introduction to environmental science course ENVR 1302. Lec 3, Cr 1.	Academic
ENVR 1301	Introduction to Environmental Science I	This course provides students with an introduction to environmental science from various perspectives (regional to global, including principles for understanding the environment, managing living system, and human impacts on the environment, such as population issues, environmental health, biodiversity, and food. Lec 3, Cr 3.	Academic
ENVR 1302	Introduction to Environmental Sciences II	This course is a continuation of introduction to environmental science. It provides students with various perspectives (regional to global) on focusing on natural and physical resources, environmental systems, issues and policies. Such as air pollution, water pollution, energy waste management and sustainability. Lec 3, Cr 3.	Academic
ENVR 3105	Oceanography Laboratory	This course includes the practical application of oceanographic principles, marines water property distribution, rock identification and depositional environment interpretation, geologic and bathometric map interpretation, and geological data analysis. Lab 3, Cr 1.	Academic
ENVR 3305	Oceanography	An introduction to the nature and origin of the world's oceans. Topics will cover geological, chemical, physical and biological processes throughout the oceans. Lec 3, Cr 3.	Academic

ENVR 3334	Conservation of Natural Resources	A survey of the distribution of natural resources, with special emphasis on new solutions to problem of resource scarcity. Topics include: energy, water, air and food resources, and other selected components of the lithosphere, hydrosphere, atmosphere and biosphere. Economic, demographic, and political issues are considered as they affect natural resources. Lec 3, Cr 3.	Academic
ENVR 3351	Environmental Science Field Methods and Data Analysis	This course will introduce many field and data analysis methods. During the field excursions, students will practice the field methods and collect data for later analysis. Lec 3, Cr 3.	Academic
ENVR 4170	Topics in Environmental Science Laboratory	Specialized laboratory content not available in other courses. May be repeated for credit as topics changes but no more than three credit hours may apply toward the Environmental Science major. Lec 3, Cr 3.	Academic
ENVR 4301	Environmental Regulations	An overview of pertinent state, national and international environmental regulations, policies and treaties, Topics include: common law liability, the Clean Air and Water Acts, sustainable development, stratospheric ozone, global warming, endangered species, environmental justice hazardous waste and much more. An emphasis will be placed on U.S./ Mexico specific issues. Lec 3, Cr 3.	Academic
ENVR 4325	Environmental Science Internship	This course will give environmental sciences students the opportunity to gain experience by applying by principles and concepts in an actual work-related environment. The student will perform the internship under the supervision of both an environmental sciences faculty member and a collaborating member of the participating internship site. Internship 3, Cr 3.	Academic
ENVR 4370	Topics in Environmental Sciences	Specialized lecture content not available in other courses. May be retaken for credit as topics changes but no more than nine credit hours may apply toward the Environmental Science major. Lec 3, Cr 3.	Academic
ENVR 4399	Research Problems in Environmental Sciences	Research under the supervision of an Environmental Sciences faculty member. May be repeated for credit but no more than three semester credit hours may apply toward the Environmental Science major. Students enrolling for ENVR 4399 will present research results in a Department seminar. Lec 3, Cr 3.	Academic
ESOL 0231	Beginning Conversational Grammar	This course explores the grammatical foundations of the English language. Students become aware of English syntax so that they can incorporate correct grammatical structures into their ability to speak fluently and write correctly. This course allows students to comprehend basic sentence structure and recognize parts of speech application. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0232	Beginning Writing	This course helps students learn the fundamental elements of the writing process by focusing on grammar, sentence structure and development, and text editing. The objective is to prepare students for developing well structured sentences by enhancing their grammar and mechanical skills into the production of correctly written sentences. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0233	Beginning Conversation	This course helps students to develop basic oral communication skills. It allows students to practice simple oral expressions in order to gain self-confidence when speaking. Students integrate vocabulary and correct grammatical form into practical conversation using everyday context and various scenarios. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0234	Intermediate Conversational Grammar	This course broadens the grammatical concepts and prepares the student for developing more complex writing assignments and oral activities. It also emphasizes the application of grammar and spelling rules in all contexts for accurate writing and oral practice. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0235	Intermediate Writing	This course introduces students to the process of paragraph development. It further expands the production of correctly written single sentences by creating connections for developing complete thoughts. It entails a detailed approach to the writing process where students prepare to write sound and coherent paragraphs. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0236	Intermediate Conversation	This course enables students to develop oral communication abilities for life skills and academic objectives. Through continuous meaningful oral communication activities, students gain self-confidence and self-esteem when speaking English. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0237	High Intermediate Conversational Grammar	This course introduces more complex grammatical concepts for oral and written practice. The content of this course enhances students' ability to accurately produces written statements and papers for personal or academic purposes. Students learn to write and orally express ideas thoroughly and effectively by incorporating correct syntactical and mechanical skills. Lec 1, Lab 2, Cr 2.	Academic

ESOL 0238	High Intermediate Writing	This course prepares students to develop complete essays utilizing various writing techniques. Students learn to determine the focus and structure of essays by applying more advanced writing criteria. This course aims at preparing students for university study. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0239	High Intermediate Conversation	This course gives students stronger communication skills by enhancing their listening and comprehension capacity. The focus is continuous interactive activities that allow students to engage in practical conversation and public speaking skills. Special attention is given to targeted vocabulary and pronunciation fine-tuning. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0240	Advanced Conversational Grammar	This course will enable students to develop complete understanding of verb conjugations and their application, understand complex English syntactical constructions in conversation, and develop fluency and mastery of the English language in various contexts. Lec 2, Lab 1, Cr 2.	Academic
ESOL 0241	Advanced Writing	This course will help students polish their essay-writing skills and learn to incorporate research in their writing. Academic-style sentences, essay writing techniques, and the core elements of an essay are emphasized. Students practice outlining, writing thesis statement, and developing sound paragraphs and conclusions. Lec 2, Lab 1, Cr 2.	Academic
ESOL 0242	Advanced Conversation	This course will allow students to fine-tune their public speaking skills and enrich their vocabulary, while improving their grammatical knowledge through practical conversations and class participations. The emphasis of this class will be to gain a sense of self-confidence when using the English language orally. Lec 1, Lab 2, Cr 2.	Academic
ESOL 0243	Preparation for College	This course will prepare students for all aspects of university life. Students will develop skills in time management, note-taking, and study and test-taking. The course will focus on academic and cultural facets of university life to help students gain a deeper understanding of the overall university experience. Lec 2, Lab 1, Cr 2.	Academic
EXPL 2301	Analysis of Learning Outcomes and Competencies	Instruction in the preparation of a portfolio documenting college-level learning gained through non-college experience. Focus is on defining goals, exploring. Lec 3, Cr 3.	Academic
FINA 3380	Managerial Finance	Managerial finance provides a framework for understanding how corporate managers' investment and financing decisions affect their firm's value. Specific topics include the goals of financial management, financial planning, time value of money, valuation of financial assets, capital budgeting, risk and return, and the cost of capital. Lec 3, Cr 3.	Academic
FINA 3381	Money and Banking	The components, nature, functions, creations and destructions of money and credit! financial institutions and their functions! introduction to monetary theory and policy for the purpose of establishing the framework of the monetary economy. Lec 3, Cr 3.	Academic
FINA 3382	Investment Principles	This course covers the basics of investigating in stocks, bonds, and derivatives as well as portfolio creation, management and performance measurement. The main focus of the course is the trade-off between risk and return. Lec 3, Cr 3.	Academic
FINA 4380	Corporate Finance	Intermediate and advanced issues in corporate finance are covered in this course. Specific topics include issues in capital budgeting, cost of capital, dividend policy, capital structure long term financing, mergers and acquisitions and international financial management. Lec 3, Cr 3.	Academic
FINA 4385	Financial Institutions and Markets	The dynamics of financial markets and their interaction with suppliers of funds, particularly financial intermediaries. Lec 3, Cr 3.	Academic
FINA 4387	Topics in Finance	The study of significant topics related to Finance Course may be repeated for credit when topic varies. Lec 3, Cr 3	Academic
FINA 4389	Commercial Banking	The principles and policies affecting the services, organization and management of funds in the commercial bank! policy formulation is emphasized! coordination with general economic and money market conditions is covered. Lec 3, Cr 3.	Academic
FREN 1311	Elementary French I	A course designed to develop the ability to understand, speak, read, and write the French language. Lec 3, Cr 3.	Academic
FREN 1312	Elementary French II	A continuation of FREN 1311. Lec 3, Cr 3	Academic
FREN 2311	Intermediate French I	A review of the grammar. Emphasis on reading and writing. Lec 3, Cr 3	Academic
FREN 2312	Intermediate French II	A continuation of FREN 2311. Lec 3, Cr 3	Academic

FREN 3330	Direct French Translation (French to English)	This course is a basic orientation in the theory and practice of translating a text from French into English (direct translation), including consideration of both cultural and morpho-syntatical problems. Software programs used by professional translators and interpreters will be introduced. Lec 3, Cr 3.	Academic
FREN 3337	French Grammar and Composition	This course is a review of advanced grammar issues with emphasis on composition. Lec 3, Cr 3.	Academic
FREN 4330	Inverse French Translation (English to French)	This course is a basic orientation in the theory and practice of translating a text from English into French (inverse translation), with consideration given to both cultural and morpho-syntatical problems as well as to a review of advanced grammar and composition. Lec 3, Cr 3.	Academic
FREN 4335	Topics in French Language, Culture, and Translation	This course consists of topics including but not limited to French language, literature, and culture. It may be taken 3 times for a total of 9 hours when topic varies. Lec 3, Cr 3.	Academic
FRENU 2612	Intensive Intermediate French	This is an intensive course covering all contents of FREN 2311 and FREN 2312 in one semester. Lec 6, Cr 6.	Academic
GENDU 2301	Introduction to Gender Studies	This course introduces students to the foundations of gender theory and issues, which studies the construction of genders and gender identities through social, psychological, historical, cultural, and physical/ biological perspectives. Lec 3, Cr 3.	Academic
GENDU 2302	Introduction to Gender Theories	This course introduces various theories explaining the formation of gender, among them psychoanalysis, feminism, postmodernism, postcolonialism and evolutionary psychology. Lec 3, Cr 3.	Academic
GEOG 1301	Elements of Physical Geography	The earth's external features! landscape development under the influence of volcanism and mountain- building forces, rivers and their work, underground waters, waves and currents, and the wind! the principle soil groups as related to landscape and climate. Lec 3, Cr 3.	Academic
GEOG 1303	General World Geography	This course includes the study of the major world regions with emphasis on prevailing conditions and developments, including emerging conditions and trends, and the awareness of diversity of ideas and practices to be found in those regions. Lec 3, Cr 3.	Academic
GEOG 1304	Geography of Middle America	A regional study of geography of Middle America, this course includes as investigation of the physical, cultural and economic factors of various regions and how these affect present day conditions. Lec 3, Cr 3.	Academic
GEOG 2301	Economic Geography	Analysis of production at local, regional, and national scales. Agricultural and industrial location and the growth and influence of central places are discussed. Lec 3, Cr 3.	Academic
GEOG 2302	Cultural Geography	Study of human culture hearths, the distribution of language and religion, environmental perception, cultural ecology, and human settlement patterns. Lec 3, Cr 3	Academic
GEOG 2389	Academic Cooperative	This course will integrate on-campus study with practical hands-on experience in geography. 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. Lec 3. Cr 3.	Academic
GEOG 3320	Cultural Geography for Educators I	The Cultural geography is the study of the interaction between humans and the natural environment. The course will examine the relationship from the historical past to the present time with major emphasis human cultural diversity. Lec 3, Cr 3.	Academic
GEOG 3333	Latin American Geography	A regional study of geography of Mexico, the Caribbean, Central and South America. Includes an investigation of the physical, cultural and economic factors of various regions and how these affect present day conditions. Lec 3, Cr 3.	Academic
GEOG 3334	Conservation of Natural Resources	A survey of the distribution of natural resources, with special emphasis on new and novel solutions to problems of resource scarcity. Topics include food, scenic and recreational resources, and other selected components of the lithosphere, hydrosphere, atmosphere and biosphere. Economic, demographic, and political issues are considered as they affect the natural resources. Lec 3, Cr 3.	Academic
GEOG 4310	Earth Science for Educators I	This is the first part of a hands-on Earth Science course designed for education will provide the students with basic theoretical background in Earth Science with hands-on workshops to enable the student to understand the Earth Science processes on the Earth's surface. Lec 3, Cr 3.	Academic

GEOG 4320	Earth Science for Educators II	This is the second part of a hands-on Earth Science course designed for education majors enrolled in the EC-8 program. The course will provide the students with a basic theoretical background in Earth Science with hands-on workshops to enable the student to understand the Earth Science processes on the Earth's surface. Lec 3, Cr 3.	Academic
GEOG 4440	Geographic Information Systems	This course covers the basics of Geographic Information Systems (GIS) concepts and software such as ArcView and ArcGIS. Special attention will be given to digital data acquisition, processing, data management and generation of base maps for various applications in the field-based sciences. Lec 3, Lab 3, Cr 3.	Academic
GEOG 4441	Principles of Remote Sensing	This course will emphasis the application of remote sensing and image analysis in the earth sciences, qualitative and quantitative satellite image and air photo interpretation. Additional emphasis will be placed on the use of computer processing packages. Lec 3, Lab 3, Cr 4.	Academic
GEOL 1101	Principles of Earth Sciences Laboratory	Laboratory practice that illustrates the formation of earth materials, processes of plate tectonics and of atmosphere. Lab 3, Cr 1.	Academic
GEOL 1103	Physical Geology Laboratory	Laboratory practice which illustrates the types of Earth materials, basic principles of structural geology, processes of hydrosphere and of plate tectonics. Lab 3, Cr 1.	Academic
GEOL 1104	Historical Geology Laboratory	Laboratory practice that illustrates the basic principles of stratigraphy, paleontology, origin and evolution of Earth through time. Lab 3, Cr 1.	Academic
GEOL 1147	Meteorology Laboratory	This course is a laboratory study of the weather variables, atmospheric motion, precipitation, and topics in modern weather science. Exercises are based on lab component to the meteorology course. Lab 3, Cr 1.	Academic
GEOL 1301	Principles of Earth Sciences	Topics are selected from geology, geophysics, meteorology, and oceanography in order to illustrate the philosophy and methods of science. Other topics include earth materials, processes of plate tectonics and atmosphere. Lec 3, Cr 3.	Academic
GEOL 1303	Physical Geology	The classification and analysis of geologic agents responsible for the origin, structure, and sculpturing of the earth's crust, including a comprehensive description of materials comprising the Earth. Lec 3, Cr 3.	Academic
GEOL 1304	Historical Geology	The geologic history of the earth and its inhabitants as revealed by fossil record with emphasis on North America. Lec 3, Cr 3.	Academic
GEOL 1347	Meteorology	This course will introduce the student of the study of the observation and distribution of weather variables, atmospheric motion, precipitation, and topics in modern weather science. Lec 3, Cr 3.	Academic
GEOL 2309	Mineralogy	A study of the physical and chemical properties of minerals. Lab consists of hand specimen identification of rock formations and ore minerals. Lec 2, Lab 4, Cr 3.	Academic
GEOL 2389	Academic Cooperative	This course will integrate on-campus study with practical hands-on experience in geology. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of inanimate objects, processes of matter and energy, and associated phenomena.Lec 3, Cr 3.	Academic
GEOL 3105	Oceanography Laboratory	This course includes the practical application of oceanographic principles, marine water property distribution, rock identification, and depositional environment interpretation, geologic and bathometric map interpretation, and geological data analysis. Lab 3, Cr 1.	Academic
GEOL 3305	Oceanography	An introduction to the nature and origin of the world's oceans. Topics will cover geological, chemical, physical and biological processes throughout the oceans. Lec 3, Cr 3.	Academic
GEOL 3436	Hydrology and Water Resources	This course will explore the circulation of water in earth systems. Surface water processes studied will include runoff, routing, evapotranspiration, infiltration, and flooding. Groundwater process will include the basics of ground water flow, aquifer characteristics, and others. Global national, and regional aspects of water resources management will also be introduced. Lec 3, Lab 3, Cr. 4.	Academic
GEOL 4310	Earth Science for Educators I	This is the first part of a hands-on. Earth Science course designed for education majors enrolled in the EC-8 program. The course will provide the students with basic theoretical background in Earth Science with hands-on workshops to enable the student to understand the Earth Science processes on the Earth's surface. Lec 3, Cr 3.	Academic

GEOL 4320	Earth Science for Educators II	This is the second part of a hands-on Earth Science course designed for education majors enrolled in the EC-8 program. The course will provide the students with a basic theoretical background in Earth Science with hands-on workshops to enable the student to understand the Earth Science processes on the Earth's surface. Lec 3, Cr 3.	Academic
GEOL 4335	Geomorphology	Geomorphology is the study of landforms. This class will emphasize the physical, chemical, and biological processes that create and modify landforms. This course covers the history of landform evolution and the climatic and tectonic conditions that influence landform development. Lec 3, Cr 3.	Academic
GEOL 4350	Geoscience Field Excursion	A study of the geology of a selected region Texas or Mexico with several 1-2 day field trips in order to map and study the field trips in order to map and study the field relationship of the geologic features. Special emphasis is given to stratigraphic, geomorphologic, structural and/or tectonic relationships of the designated study area. Lec 3, Cr 3.	Academic
GEOL 4360	Plate Tectonics	This is upper division geology course designed for environmental science majors. Plate Tectonic processes of past and present will be discussed in detail with an emphasis on their effects on the earth's environment. Student learns about large scale dynamics of the earth's surface that involve growth and shrinkage of oceans, drift of continents, growth and evolution of mountain belts, etc. Findings of recent plate tectonics research projects will be incorporated into lectures. Lec 3, Cr 3.	Academic
GEOL 4411	Sedimentology and Stratigraphy	This course will explore the formation of sediments and sedimentary rocks. Students will learn to interpret depositional environments and sequences of stratigraphic beds using multiple tools. Lec 3, Lab 3, Cr 3.	Academic
GEOL 4431	Coastal Geology	This course explores the sedimentary features and stratigraphy of the Gulf of Mexico coastline. The exploration of the impact of geology on humans and the impact of humans on the geologic features will be emphasized. Lec 3, Lab 3, Cr 4	Academic
GEOL 4440	Geographic Information Systems	This course covers the basics of Geographic Information Systems (GIS) concepts and software such as ArcView and ArcGIS. Special attention will be given to digital data acquisition, processing, data management and the generation of base maps for various applications in the field-based sciences. Lec 3, Lab 3, Cr 4.	Academic
GEOL 4441	Principles of Remote Sensing	This course will emphasize the application of remote sensing and image analysis in the earth sciences, qualitative and quantitative satellite image and air photo interpretation. Additional emphasis will be placed on the use of computer processing packages. Lec 3, Lab 3, Cr 4.	Academic
GERM 1311	Elementary German I	A study of the essentials of German grammar, pronunciation, elementary conversation and prose reading. Lec 3, Cr 3	Academic
GERM 1312	Elementary German II	A continuation of GERM 1311. Lec 3, Cr 3	Academic
GERM 2311	Intermediate German I	A review of the German language structure with emphasis on the development of aural comprehension and speaking ability. Selected readings based on everyday subjects and cultural material. Also includes dictation and simple composition exercises. Lec 3, Cr 3.	Academic
GERM 2312	Intermediate German II	A continuation of GERM 2311. Lec 3, Cr 3.	Academic
GOVT 2301	American and Texas Government	A survey of the fundamental principles of political science of the American system of government, and of the origins, development and structure of the constitutions and government of the United States and Texas. Lec 3, Cr 3.	Academic
GOVT 2302	American Government and Policy	A survey of the inputs and outputs of the American government including political participation, civil rights and liberties, public economics and foreign policy. Lec 3, Cr 3	Academic
GOVT 3301	Citizenship and Community Development	This course develops an understanding of community development as an expression of citizenship. It explores two citizenship traditions: citizenship as a status and citizenship as a practice. It also focuses on the role of democratic deliberation in support of community development. Lec 3, Cr 3.	Academic
GOVT 3302	Ethics and Public Service	This course is a philosophical inquiry into ethical issues. It focuses on the ethical examination of political behavior and decision-making that impact public service. Lec 3, Cr 3.	Academic
GOVT 3314	American State and Local Government	This course analyzes the developments, problems and issues facing state and local community governments. Emphasis will be on state and local community development through comparative regional governmental analysis within the United States. Lec 3, Cr 3.	Academic

GOVT 3322	Introduction to Comparative Politics	This course is a study of similarities and differences between various political systems in the world. It aims to generate a better understanding of international relations and politics. Lec 3, Cr 3.	Academic
GOVT 3323	Foundations of Public Administration and Service	This course is a survey of public administration in the United States. It highlights a wide variety of topics in public administration, with emphasis on public service. Lec 3, Cr 3.	Academic
GOVT 3331	Research Methods	This course is a survey of research modeling in political science and government. It is an introduction to research design and reporting, qualitative and quantative analyses, experimental and survey research, and analysis techniques in SPSS. Lec 3, Cr 3.	Academic
GOVT 3332	Applied Statistics Public Service	This course illustrates the statistical applications to public service programs. It extends the basic research methods explored in GOVT 3331. Lec 3, Cr 3.	Academic
GOVT 3343	Global Politics and International Relations	This course is an introduction to the history and contemporary theory of global politics from the perspective of international relations. Lec 3, Cr 3.	Academic
GOVT 3363	American Hispanic Politics	A study of the American Hispanic experience. Analyzes political socialization and culture, political participation and behavior, leadership, organizations, and power in the American political system. Lec 3, Cr 3	Academic
GOVT 3373	Contemporary Texas	This course is a survey of contemporary political, and administrative issues confronting Texas. Lec 3, Cr 3.	Academic
GOVT 3385	Internship	This course is designed for the students seeking credit through an internship placement. The internship must be directly related to government! the student must be under direct academic supervision and the student must complete written assignments to be evaluated by the supervising teacher. Lec 3, Cr 3.	Academic
GOVT 4312	Issues in Public Planning	This course is a survey of planning in the public sector. It focuses on program evaluation and accountability, project selection, and performance-based budgeting. Lec 3, Cr 3.	Academic
GOVT 4314	Leadership and Non-Profit Organization	This course focuses on the skills, knowledge, and attitudes in building the leadership of nonprofit organizations. It also addresses topics such as power, leadership styles, supervision, ethics, women and minorities in management, and conflict resolution. Lec 3, Cr 3.	Academic
GOVT 4320	American Constitutional Law: Powers	A study of the allocation of government powers by use of court cases, with special emphasis on the national government and an introduction to the judicial functions of the American legal system. Lec 3, Cr 3	Academic
GOVT 4321	American Constitutional Law: Civil Liberties	A study of the limitations of governmental powers in the United States by use of the courts cases, with primary emphasis on civil and political rights. Lec 3, Cr 3	Academic
GOVT 4360	The Presidency	This course is a study of the development, structure, powers, and functions of the presidency. Lec 3, Cr 3.	Academic
GOVT 4363	The Congress	This course is a study of the development and the structure, powers, functions, processes, and influence of Congress. Lec 3, Cr 3.	Academic
GOVT 4365	Public Personnel Administration	This course emphasizes the importance of human resources management in public and nonprofit organizations. It also focuses, on the development and maintenance of public bureaucracy and the proper response to the needs of a democratic society. Lec 3, Cr 3.	Academic
GOVT 4366	American Political Parties and Politics	A study of the history, function and leadership of political parties and the role they play in the operation of national, state, and local governments in the United States and a study of the role of group politics and voting behavior in the American political process. Lec 3, Cr 3.	Academic
GOVT 4367	The Judiciary	This course is a study of the judicial system on local, state, and national levels. It focuses on the relationship between the judiciary and political system, as well as the impact of the judicial decision-making on public policy. Lec 3, Cr 3.	Academic
GOVT 4368	Special Topics in American Government	Significant issues and problems in politics and the political system. Course may be repeated for credit provided different topics are the focus of each class. Lec 3, Cr 3.	Academic
GOVT 4369	Latin American Politics	A survey of governmental processes in Mexico, the Caribbean, Central, and South America. Examines competing ideologies, group dynamics, relationships between political, economic and social structures and Latin America's role in the international political system. Lec 3, Cr 3.	Academic
GOVT 4370	European Politics	A study of the major democracies of Europe. A comparative study of peoples and their political, social and economic institutions. Generally includes, but is not limited to, Great Britain, France, and Germany. Lec 3, Cr 3.	Academic

GOVT 4371	Contemporary International Issues	This course is a study of important issues in international politics. It focuses on themes, issues, and players in world politics, regional and international conflicts, and the solutions to these conflicts. Lec 3, Cr 3.	Academic
GOVT 4372	Classical Political Theory	A study of classical political philosophy from Soc rates to Machiavelli. Lec 3, Cr 3	Academic
GOVT 4373	Modern Political Theory	This course is a study of political philosophy from the 1500s until the present. Lec 3, Cr 3	Academic
GOVT 4374	American Public Policy	An analysis of the formation, implementation, and assessment of selected public policies in America. Lec 3, Cr 3	Academic
GOVT 4376	Contemporary Issues in Homeland Security	This course examines contemporary issues concerning Homeland Security. It focuses on counter-terrorism, borders and international jurisdiction, immigration, transportation, and public health emergencies. Lec 3, Cr 3.	Academic
GOVT 4378	Middle Eastern Politics	This course is a survey of governmental processes in the Middle East. It focuses on the role of the Middle East in global politics. It also examines the relationships between the political, economic, and social structures and the competing ideologies and group dynamics in this region. Lec 3, Cr 3.	Academic
GOVT 4390	Political Science Senior Seminar	This course will help senior students organize, consolidate and systematically demonstrate their knowledge of American Government, Political Theory, International Relations/ Comparative Politics and Public Administration. Lec 3, Cr 3	Academic
HART 1301	Basic Electricity for HVAC	This course covers principles of electricity as required by HVAC equipment including proper use of test equipment, electrical circuits, and component theory and operation. Lec 2, Lab 4, Cr 3.	Technical
HART 1303	Air Conditioning Control Principles	Control Principles is a basic study of HVAC and refrigeration controls, troubleshooting of control components, use of wiring diagrams to analyze high and low voltage circuits, and a review of Ohm's law as applied to air conditioning controls and circuits. Lec 2, Lab 3, Cr 3.	Technical
HART 1307	Refrigeration Principles	An introduction to the refrigeration cycle, heat transfer theory, temperature/pressure relationship, refrigerant handling, refrigeration components and safety are covered in this course. Lec 2, Lab 4, Cr 3.	Technical
HART 1341	Residential Air Conditioning	A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems are course components. Lec 2, Lab 4, Cr 3.	Technical
HART 1345	Gas and Electric Heating	Gas and Electric Heating will study the procedures and principles used in servicing heating systems including gas fired furnaces and electric heating systems. Lec 2, Lab 3, Cr 3.	Technical
HART 1356	EPA Recovery Certification Preparation	This course provides study and training for HVAC refrigerant recovery and recycling EPA certification. Lec 3, Cr 3.	Technical
HART 1451	Energy Management	Topics covered will be heat transfer and loads, building construction and envelope, energy audit processes and procedures, and remedies for excessive energy usage as it relates to H.V.A.C. and related systems. Lec 3, Lab 3, Cr 4.	Technical
HART 2301	Air Conditioning and Refrigeration Codes	HVAC standards and concepts with emphasis on the understanding, and documentation of the codes and regulations required for the state mechanical contractors license and local codes will be covered. Lec 3, Cr 3.	Technical
HART 2331	Advanced Electricity	Topics addressed will be advanced electrical instruction and skill building in installation and servicing of air conditioning and refrigeration equipment including detailed instruction in motors and power distribution, motor controls, and application of solid state devices. Lec 2, Lab 3, Cr 3.	Technical
HART 2334	Advanced A.C. Controls	Theory and application of electrical devices, electromechanical control, and/or pneumatic controls in commercial equipment will be covered. Lec 2, Lab 3, Cr 3.	Technical
HART 2336	Air Conditioning Troubleshooting	This is 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. Lec 2, Lab 4, Cr 3.	Technical
HART 2338	Air Conditioning Installation and Startup	This course is an applied study of air conditioning system installation, refrigerant piping, condensate disposal, and air cleaning equipment with emphasis on startup and performance testing. Lec 2, Lab 4, Cr 3.	Technical
HART 2341	Commercial Air Conditioning	This course is a study of components, applications, and installation of air conditioning systems with capacities of 25 tons or less. Lec 2, Lab 4, Cr 3.	Technical

HART 2342	Commercial Refrigeration	Commercial Refrigeration covers the theory, installation, maintenance, and service of medium and low temperature applications of typical commercial refrigeration equipment. Lec 2, Lab 4, Cr 3.	Technical
HART 2345	Residential Air Conditioning System Design	This course is a 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 are also topics. Lec 2, Lab 3, Cr 3.	Technical
HART 2349	Heat Pumps	Heat pumps equipment, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems are covered. Lec 2, Lab 2, Cr 3.	Technical
HART 2388	Internship- Heating, Air Conditioning, Refrigeration Mechanic and Repairer	This course is 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. Ext 192, Cr 3.	Technical
HART 2443	Industrial Air Conditioning	Industrial A.C. is a study of equipment components, accessories, applications, and installation of systems rated above 25 tons capacity. Lec 3, Lab 3, Cr 4	Technical
HART 2457	Specialized Commercial Refrigeration	This is an advanced course covering the components, accessories, and service of specialized refrigeration units. Lec 3, Lab 3, Cr 4.	Technical
HART 2488	Internship	This course is a work-based learning experience that enables the student to apply specialized occupational theory, skills and includes a learning plan developed by the instructor and the job supervisor. Ext 12, Cr 3.	Technical
HIST 1301	United States to 1877	Discovery, the colonial period, the American Revolution, establishing the nation, political, territorial and socioeconomic growth! the sectional controversy, civil war! reconstruction in the South to 1877. Lec 3, Cr 3.	Academic
HIST 1302	United States Since 1877	The growth of transportation and industry, the agrarian protest and the movement toward economic and political reform. The creation of an overseas empire, the United States in two world wars! the Cold War, and the role of the United States as a dominant world power. Lec 3, Cr 3.	Academic
HIST 2321	World History I	A study of world history to 1650 tracing the rise, decline and renewal of major civilizations, emphasizing those societies which have been in forefront of human change at any one time. Lec 3, Cr 3.	Academic
HIST 2322	World History II	A study of world history since 1650 tracing the rise, decline and renewal of major civilizations, emphasizing those societies which have been in forefront of human change at one time. Lec 3, Cr 3.	Academic
HIST 2380	Mexican-American Studies	This survey course presents the chronological, social-cultural and political-historical foundations that forged the Mexican/American/Hispanic/Chicano heritage. Included in this course are the following: a) elements of pre-Columbian roots, b) Spanish /Caribbean cultural, social and political systems, c) Mexican history and heritage and d) their collective impact on the contemporary Hispanic population in United States. Lec 3, Cr 3	Academic
HIST 3313	American Colonial Era to 1783	A study of American Colonial history from the founding of the first colony through the American Revolution with emphasis given to the development of American civilization! causes, and results of the American Revolution. Lec 3, Cr 3.	Academic
HIST 3324	Formative Period of the American Nation, 1783 - 1840	A study of the early years of the American nation from the critical period to the adoption of the constitution and launching of the government through the transformation of American Society by the Jacksonian Era of the Common Man. Lec 3, Cr 3.	Academic
HIST 3334	Mexico and the Borderlands Through Independence	This course surveys Mexican history with emphasis on the pre-Columbian Indians, the Conquest, Spanish colonial institutions, and independence. Lec 3, Cr 3.	Academic
HIST 3335	Mexico Since Independence	This course surveys major developments in the nineteenth and twentieth century in Mexico with emphasis on the early national period, the Reform, the Porfiriate, and the Revolution. Lec 3, Cr 3.	Academic
HIST 3340	Texas History	A history of Texas from the Spanish period to the present day. Emphasis will be placed upon the Indians, the role of the Spanish and Mexicans, the period of Anglo American settlement, the revolution, the Republic and the development of the modern state. Lec 3, Cr 3	Academic
HIST 4303	The Emergence of Modern America, 1877 - 1917	A study of the growth of American business and industry, the emergence of the U.S. as a world power, the populist protest and progressive reform movements. Lec 3, Cr 3.	Academic
HIST 4313	Twentieth Century America, 1917 To Present	A study of the history of the United States from World War I to the present, emphasis on domestic and foreign affairs in their relationship to and effect on each other. Lec 3, Cr 3.	Academic

HIST 4320	Advanced Topics in American History	This course offers an in depth examination of selected topics in American History. Course can be repeated for credit as topic changes for a total of up to 6 credit hours. Lec 3, Cr 3.	Academic
HIST 4338	American Intellectual Social History	The intellectual perspective includes major historical and cultural ideas which were conceived and used by elites to promote given political and social agendas. The Social History component includes group behavior and participation in such basic areas as: Religion, Political Democracy, Labor Organizations and Reform movements. Lec 3, Cr 3.	Academic
HIST 4343	Era of the Sectional Conflict	United States history from 1840 to 1877 with emphasis upon the development of sectionalism, the breakdown of American political parties, Civil War and Reconstruction. Lec 3, Cr 3.	Academic
HIST 4344	United States Diplomatic History	A survey of American foreign policy, its implementations and ratifications, and the interaction between the United States and other nations from 1776 to the present, with special emphasis on the relations with Mexico. Lec 3, Cr 3	Academic
HIST 4345	North American Economic History	A survey of North American Economic growth and development from the pre-colonial era to the present. May be counted as ECON 4345 or HIST 4345. Lec 3, Cr 3.	Academic
HIST 4350	Advanced Topics in Latin American History	This course offers an in depth examination of selected topics in Latin American History. Course can be repeated for credit as topic changes for a total of up to 6 credit hours. Lec 3, Cr 3.	Academic
HIST 4357	History of Modern Latin America	A study of the cultural and political trends of the Latin American nations since independence. Lec 3, Cr 3.	Academic
HIST 4360	Advanced Topics in European/ World History	This course offers in depth examination of selected topics in European/World History. Course can be repeated for credit as topic changes for a total of up to 6 credit hours. Lec 3, Cr 3.	Academic
HIST 4365	History of the Middle Ages	A study of European Medieval roots to 1500. Lec 3, Cr 3	Academic
HIST 4367	History of Early Modern Europe	A study of the transition of European society into modernity in the 16th, 17th, and 18th centuries. Lec 3, Cr 3	Academic
HIST 4369	Nineteenth Century Europe: 1789-1914	A study of the political, social and cultural developments in Europe from the French Revolution to the outbreak of World War I. Lec 3, Cr 3.	Academic
HIST 4371	History of the Islamic World	A survey of the vast crescent of the Islamic World from North Africa through the Middle East to Indonesia. The study will commerce with Mohammed in 622 but concentrate on the challenges posed by the Islamic World in modern times. Lec 3, Cr 3.	Academic
HIST 4372	History of Russia	A study of Russian history from the founding of the Kievian state through to today. Special emphasis will be given to the Soviet Era and the current state of the former Soviet republics. Lec 3, Cr 3.	Academic
HIST 4374	History of Asia	A survey of Asian history from earliest times through to today. Special emphasis will be given to the Asian "core civilizations" of China and India. Lec 3, Cr 3.	Academic
HIST 4379	Modern Europe: 1914- Present	A study of Europe from the commencement of the First World War through to the progressive, increasingly-unified Europe of today. Lec 3, Cr 3.	Academic
HIST 4380	History of World War I and II	A history of the causes, course, and outcomes of the two World Wars. Lec 3, Cr 3	Academic
HIST 4381	U.S. Military History	This course is a study and analysis of the American military experience from the Revolutionary War through the Persian Gulf War to the present day. Lec 3, Cr 3.	Academic
HIST 4385	Ancient History	A study of the historical foundations of the Middle East, Greece, and Rome. Lec 3, Cr 3.	Academic
HIST 4390	American History Senior Seminar	This course will help senior students to consolidate their knowledge of American History. The student is challenged to appreciate the flow of American history as major historical themes evolve from Pre-Columbian peoples and civilizations through to the present in the United States. Lec 3, Cr 3.	Academic
HIST 4392	World History Senior Seminar	This course will help students to consolidate their knowledge of World History. The student is challenged to appreciate the flow of world history as major historical themes evolve from earliest civilization through to the modern day. Lec 3, Cr 3.	Academic
HITT 1301	Health Data Content and Structure	This course provides an introduction to systems and processes for collecting, maintaining, and disseminating primary and secondary health related information. Instruction in delivery and organizational structure will include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens . Lec 3, Cr 3.	Technical

HITT 1305	Medical Terminology I	This course includes the study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialists, and diagnostic procedures. Lec 3, Cr 3.	Technical
HITT 3107	C.I.M Practicum	The course provides 160 of clinical experience under supervision of a Certified Tumor Registrar and experiences in the following: Data collection! Registry files! Follow-up! Quality control! Reporting! Quality management! and Case finding. Clinical 10, Cr 1.	Academic
HITT 3206	Cancer Disease Coding	This course provides an overview of oncology coding systems, with a focus on coding and abstracting clinical information from medical records. Instruction focuses on International Classification of Disease for Oncology (ICD-O)and Facility Oncology Registry Data Standards (FORDS) to classify tumors. Students will participate in hands-on abstracting and coding exercises. Lec 2, Cr 2.	Academic
HITT 3301	Cancer Program Standards and Registry Operations	This course will provide an in-depth introduction to hospital-based and central cancer registry standards and operations. The structure, management and daily operations of cancer registries will be explored in detail. Instruction will primarily focus on topics such as confidentiality, data utilizations, data quality, and the role of standard setting organizations. Lec 3, Cr 3.	Academic
HITT 3302	Cancer Disease Management	This course is a comprehensive review of the clinical management of cancer. Diagnostic and staging procedures will be explored. Treatment modalities will also be covered. Upon completing the course, students will know how to determine the types of treatment expected based in site, extent of disease and histology. Lec 3, Cr 3.	Academic
HITT 3304	Cancer Statistics and Epidemiology	The purpose of this course is to provide students with an introduction to cancer statistics, descriptive and analytic epidemiology, cancer surveillance, annual report preparation and presentation of cancer data. Furthermore, the use of cancer statistical data for research, marketing and strategic planning will be discussed. Lec 3, Cr 3.	Academic
HITT 3305	Cancer Disease Staging	This course introduces the principles of cancer staging. The American Joint Committee on Cancer (AJCC) TNM, Surveillance, Epidemiology and End Results (SEER) Summary Staging and Collaborative Stage are explored. Instruction includes extent of disease concepts used to determine treatment and survival and the procedures to conduct patient follow-up. Lec 3, Cr 3.	Academic
HLTH 3300	Elementary and Secondary School Health	This course focuses in the etiology of the physical, mental, social, and emotional health of young people. Emphasis will be placed on the theory and practice in health education and an overview of the coordinated school health program. Lec 3, Cr 3.	Academic
HLTH 3305	Selected Topics in Health Education	Selected topics in the field are examined with the intent of promoting the study and research of are as not offered in the curriculum. May be repeated one time as long as the topic is different. Lec 3, Cr 3.	Academic
HLTH 4300	Human Disease	This course covers the relationship between the human body and communicable and non-communicable diseases/ The historical aspects of diseases, etiology , prevention and control, prevalence and symptoms are examined. Lec 3, Cr 3.	Academic
HLTH 4305	Community Health Methods	This course will examine multiple aspects of community health such as political, social, economic, and cultural values in the community health education settings. Emphasis will be placed on the tenets of program planning, implementation, and evaluation. Lec 3, Cr 3.	Academic
HLTHU 2320	Personal Health	The course will cover factors and the health issues that influence lifestyle and wellness throughout the lifespan. Emphasis will be placed on the application of knowledge and skills for personal and skills for personal and professional practice. Lec 3, Cr 3.	Academic
HLTHU 2325	Nutrition	The course covers the science of nutrition and food dietary choice, weight management, disease prevention and food safety. Identification of nutritional problems and the resources in the community will be examined. Lec 3, Cr 3.	Academic
HPRS 1101	Introduction to Health Professions	An overview of the roles of the various members of the health care system, educational requirements, and issues affecting the delivery of health care. Lec 1, Cr 1.	Technical
HPRS 1106	Medical Terminology	A 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. Lec 1, Cr 1.	Technical

HPRS 1204	Basic Health Profession Skills	A study of the concepts that serve as the foundation for health profession courses. Topics include client handling an safety issues, basic client monitoring, and health documentation. Lec 1, Lab 4, Cr 2.	Technical
HPRS 1205	Medical Law/Ethics for Health Professions	Introduction to the relationship between legal aspects and the ethics associated with the health care field. Emphasis on the ethical and legal responsibilities of health care professionals. Lec 2, Cr 2.	Technical
HPRS 2300	Pharmacology for Health Professions	A study of drug classifications, actions, therapeutic uses, adverse effects, methods of administration client education, and calculation of dosages. Lec 3, Cr 3.	Technical
HPRS 3301	Introduction to the Evolving Healthcare System	Introduces the student to the organizational structure of the U.S. Health Care system. Provides historical perspective to the system evolution from institutional-based to population based are to cost-aware values. Describes the financing mechanisms, primary providers and secondary providers, and consumers of health care. Discusses how technology affects the politics of the system. Discusses the health care system along the Texas-Mexico borders and how cultural influences impacts health care delivery. Lec 3, Cr 3.	Academic
HPRS 3302	Medical Law/ Ethics for the Health Professional	Describes the laws and ethical standards that apply to allied health practitioners. Uses case presentations and develops methods for solving legal and or ethical and cultural dilemmas. Discuss pertinent legal cases involving allied health practitioners. Lec 3, Cr 3.	Academic
HPRS 3309	Leading and Managing the Healthcare Team	Discusses the concepts of leadership within the context of allied health. Prepares the learner to use problem solving methods to effectively supervise and lead subordinates in a health care setting. Focuses on the economics of managed care, how continuous quality improvement relates to cost-effective care. Develops skills and values necessary for effective teamwork. Lec 3, Cr 3.	Academic
HPRS 3313	Physical and Mental Health Throughout The Lifespan	This course provides concepts of growth, development, and mental health through human stages of life, focusing on biological/ genetic and environmental influences on the cognitive, physical, and socio-emotional/ psychological developmental areas. Course concepts are demonstrated by applying principles and theories to an interaction/ observation project and discussion of current lifespan issues. Lec 3, Cr 3.	Academic
HPRS 3316	Nutrition Concepts for Allied Health Practitioners	This course is designed to emphasize the importance of nutrition in maintaining health and wellness. The effectiveness of the therapeutic diet as related to specific diseases will be explored. In addition to school-based training, this course provides clinical-based learning experiences. Lec 3, Cr 3.	Academic
HPRS 3320	Patient Education in Health Sciences	This course will cover adult learning theories and concepts to develop appropriate teaching materials and materials and grams for patients and their families that enhance client knowledge and skills for health promotion and recovery. Lec 3, Cr 3.	Academic
HPRS 3324	Teaching in the Health Sciences	This course will provide an introduction to the principles of teaching to include planning, implementation, assessment and evaluation in health career education. The student will develop an appreciation of the value of vocational/technical education. Lec 3, Cr 3.	Academic
HPRS 4300	Pharmacology for Health Professional	This course will provide an overview of the pharmacokinetics and pharmacodynamics of prescription and nonprescription medications. Course content will emphasize drug classifications, drug action, drug administration, ethical and legal issues, and safety. Students will develop an understanding of pharmaceutics and its impact on the health care industry. Lec 3, Cr 3.	Academic
HPRS 4301	Introduction to Health Data Utilization	Surveys the use of computers in the health care industry. The learner will understand the principles of data base management with examples from medical records. Use of computer spreadsheets, graphics programs in managing and presenting data will be taught. Lec 3, Cr 3.	Academic
HPRS 4302	Continuous Quality Improvement	Provides basic principles of CQI and its application in health care environments. Provides knowledge, skills, and tools necessary to implement, facilitate, and coordinate CQI activities. This requires experience in a health care setting and moderate computer skills including creating spreadsheets, charts and graphs. Lec 3, Cr 3.	Academic
HPRS 4309	Research Methods in Evidenced-Based Healthcare	In this course, students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. The student actively formulates a problem related to health science, designs the research and procedures to be used, and plans a final product that will involve a formal presentation to representatives of the scientific community. The course may be conducted in the classroom settings or as independent seminar. Lec 3, Cr 3.	Academic

HPRS 4312	Applied Pathophysiology	This course allows students to conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Students in Pathophysiology study disease processes, and how human systems are affected. Emphasis is placed on prevention and treatment of diseases. Students will differentiate between normal and abnormal physiology. Lec 3, Cr 3.	Academic
HPRS 4316	Applied Medical Microbiology	Students in Medical Microbiology study the morphology and physiology of microbes and the relationship between microbes and health maintenance. Emphasis is placed on the role of microbes in infectious diseases. Lec 3, Cr 3.	Academic
HPRS 4330	Independent Study	This course will offer the student the opportunity for an in-depth exploration of a topic or a clinical skill in the health sciences. This course may be repeated twice for credit. Lec 3, Cr 3.	Academic
HPRS 4334	Issues and Trends in Health Care	This course will address current events, issues and attitudes pertinent to health care. This course maybe repeated twice for credit with permission of instructor. Lec 3, Cr 3.	Academic
HPRS 4360	Practicum in Health Services	Students are provided the opportunity to develop a self-directed learning plan. Students should be working in an area where meaningful experiential learning can occur. Students will develop goals and objectives, a learning plan, and evaluate the outcomes of their activities. A summary report of the process is required. Practicum 9, Cr 3.	Academic
HRPO 1311	Human Relations	This course focuses on the practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Lec 3, Cr 3.	Technical
HRPO 2301	Human Resource Management	This course explores the behavioral and legal approaches to the management of human resources in organizations. Lec 3, Cr 3.	Technical
IBUS 1301	Principles of Exports	This course covers 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. Lec 3, Cr 3.	Technical
IBUS 1302	Principles of Imports	This course covers the 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. Lec 3, Cr 3.	Technical
IBUS 1305	Introduction to International Business and Trade	This course will cover the techniques of 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. Lec 3, Cr 3.	Technical
IBUS 2339	International Banking and Trade Finance	This course introduces students to international monetary systems, financial markets, flow of capital, foreign exchange, and financial institutions. It includes risk analysis, export-import payments and financing the preparation of letters of credit, related shipping documentation, electronic fund remittance, and foreign investment financing. Lec 3, Cr 3.	Technical
IBUS 2345	Import Customs Regulations	This course outlines the duties and responsibilities of the licensed customs broker. The processes for customs clearance including appraisement, bonded warehouse entry, examination of goods, harmonized tariffs, fees, bonding, penalties, quotas, immediate delivery, consumption, and liquidation, computerized systems, laws, and regulations is included. Lec 3, Cr 3.	Technical
IBUS 2380	Coop Education-International/ Business/ Trade/Commerce	This course offers career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and students. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Lec 1, Lab 20, Cr 3.	Technical
IMED 1416	Web Design I	This course includes instruction in web page design and related graphic design issues including mark-up languages, web sites, and browsers. Lec 3, Lab 2, Cr 4.	Technical
IMED 2409	Internet Commerce	This course provides an overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include dynamic data, integration, creating web sites in order to collect information, performing, on-line transactions. Lec 3, Lab 2, Cr 4.	Technical

IMED 2415	Web Design II	Web Design II covers study of mark-up language advanced layout techniques for creating web pages with emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Lec 3, Lab 2, Cr 4.	Technical
INDS 3301	Theories of Knowledge	Analysis of humankind's "ways of knowing, including empirical and non-empirical methods. Perspectives and issues are drawn from the various sciences and humanities as well as nonacademic sources of knowledge. Lec 3, Cr 3	Academic
INDS 3303	Culture and Humanity: Human Diversity Cross Cultural Perspective	Analysis of the diversity of the human experience from a cross-cultural perspective. Particular attention is paid to differing world-views and institutional patterns (e.g., the economy, religion, politics, family, medicine) as well as the role of technology and science within different cultural contexts. Lec 3, Cr 3	Academic
INDS 3304	Frontier Studies: The U.S.- Mexico Border	Orientation in the theory and practice of field work (in either English or Spanish) for the analysis of the historical, social, economic, cultural, political, folkloric, and linguistic aspects for the U.S.-Mexico border region. Prospects for the future of the borderlands area are addressed. Lec 3, Cr 3.	Academic
INEW 2434	Advanced Web Page Programming	This course will cover advanced applications for Web authoring. Topics include Perl Scripts, Common Gateway Interface (CGI), Database Interaction, Active Server Pages, Java Applets, Java Script, HTML, and/or interactive elements. Lec 3, Lab 2, Cr 4.	Technical
INMT 1343	Computer Aided Design/ Computer Aided Manufacturing	Computer-aide d applications in integrating engineering graphics and manufacturing, with 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. Lec 3, Lab 3, Cr 4.	Technical
INTC 1357	A.C/ D.C. Motor Control	This is a study of electric motors and motor control devices common to a modern industrial environment. And includes a presentation of motor characteristics with emphasis on starting, speed control, and stopping systems. Lec 2, Lab 3, Cr 3.	Technical
INTC 2333	Instrumentation and Installation	This course is a synthesis, application, and integration of instrument installation components, and includes a comprehensive final project. Lec 2, Lab 3, Cr 3.	Technical
INTG 4366	Interpreting I	A basic orientation in the theory and practice of interpreting English to Spanish and Spanish to English. Emphasis on sight translation and short consecutive interpreting, and also preparation for simultaneous interpreting. Lec 3, Cr 3	Academic
INTG 4367	Interpreting II	Advanced practice in English to Spanish and Spanish to English consecutive and simultaneous interpreting with close attention to terminology and documentation. Lec 3, Cr 3.	Academic
INTL 3331	International Law	This course covers a wide range of topics including differences in national legal systems, the formation of international law through treaties and practice, and the relationship between international law and domestic law. It may include such topics as immigration law, human rights, intellectual property protection, the settlement of international disputes, and customs law. Lec 3, Cr 3.	Academic
INTL 3392	Supply Chain Management	The study of the systematic approach to managing the flows of materials and information links between the organization itself and its suppliers, transporters, warehouses, retailers, and customers in a way to maximize the overall value generated. Appropriate concepts and quantitative skills required for effective and efficient management of a supply chain will be studied. Themes encompassed include globalization and the role of e-commerce. Lec 3, Cr 3.	Academic
INTL 4361	International Management	The study of current recommended global management practices including managing across cultures and intercultural communication, organizing international operations and decision making, controlling across political and social environments, motivation and leadership across cultures and human resource/labor issues. Lec 3, Cr 3.	Academic
INTL 4371	International Marketing	This course will provide students with an understanding of how to evaluate marketing opportunities in foreign markets. Emphasis is placed on adapting marketing concepts and strategies to accommodate individual environmental differences in the development of an international marketing plan. Topics may include cross-cultural issues, market-entry strategies, currency markets, international brand development, and consumer motivations. Lec 3, Cr 3.	Academic

INTL 4381	International Finance and Economics	An analysis of international trade, foreign investment, financing, and the factors affecting them in the process of allocating scarce resources to better meet human needs. Lec 3, Cr 3.	Academic
INTL 4393	Topics in International Business	The study of significant topics related to International Business. Course may be repeated for credit when topic varies. Lec 3, Cr 3.	Academic
ISCIU 1410	Scientific Inquiry I	The first in two semester course sequence that will serve as an introduction to the methods of scientific inquiry. Topics are selected from various fields of the natural sciences to illustrate the history, philosophy, and methods of science. Students will examine problems through directed inquiry in a laboratory setting. Lec 3, Lab 3, Cr 4.	Academic
ISCIU 1411	Scientific Inquiry II	This is a continuation of ISCIU 1410, Scientific Inquiry I. Lec 3 Lab 3.	Academic
ITAL 1311	Elementary Italian I	A course designed to develop fundamental skills in listening comprehension, speaking, reading, and writing, emphasizing conversation, vocabulary acquisition, reading, composition and culture. Lec 3, Cr 3.	Academic
ITAL 1312	Elementary Italian II	A continuation of Italian 1311. Lec 3, Cr 3.	Academic
ITNW 1492	Special Topics: Networking and Telecommunications	Topics address the 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. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2405	Network Administration	This course will introduce topics in network administration, including network components, user accounts and groups, network file systems, file system security, and network printing. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2409	Network Administration for Intranet	This course will enable the student to perform the role of network administrator or system manager in an Intranet network. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2412	Routers and Switches	Router configuration for local area networks and wide area networks. Includes Internet Protocol (IP) addressing techniques and intermediate routing protocols. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2413	Networking Hardware	This course teaches how to maintain network hardware devices. Topics include network cables, servers, and workstations! network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies! and other networking hardware devices. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2453	Advanced Routing and Switching	This course teaches implementation, operation, and troubleshooting of switched and routed environments. It also emphasizes advanced routing protocols, Multi Protocol Label Switching (MPLS), and advanced security. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2454	Internet/ Intranet Server	This course discusses designing, installing, configuring, maintaining, and managing an Internet/Intranet server. Lec 3, Lab 2, Cr 4.	Technical
ITNW 2459	Web Server Support and Maintenance	This course will cover the designing, installing, configuring, maintaining, and managing an Internet server. Lec 3, Lab 2, Cr 4.	Technical
ITSC 1301	Introduction to Computers	Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Explores integration and application in business and other segments in society. Fundamentals of computer problem-solving and programming may be discussed and applied. Examines applications and software relating to a specific curricular area. Lec 2, Lab 2, Cr 3.	Technical
ITSC 1407	Unix Operating System I	A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands and writing scripts files. Topics include introductory system management concepts. Lec 3, Lab 2, Cr 4.	Technical
ITSC 1409	Integrated Software Applications I	Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, database, and/or presentation media software. Lec 3, Lab 2, Cr 4.	Technical
ITSC 1421	Intermediate P.C Operating Systems	Students are introduced to custom operating system installation, configuration, and troubleshooting, as well as management of file systems, memory, and peripheral devices. Lec 3, Lab 2, Cr 4.	Technical
ITSC 1425	Personal Computer Hardware	A study of current personal computer hardware including personal computer assembly and up grading, setup and configuration, and troubleshooting. Local Area Network, hardware and software installation, configuration and troubleshooting will also be covered in this course. Lec 3, Lab 2, Cr 4.	Technical
ITSE 1411	Beginning Web Page Programming	This course develops skills in web programming including mark-up and scripting language. Lec 3, Lab 2, Cr 4.	Technical

ITSE 1431	Introduction to Visual Basic Programming	A introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structural design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Lec 3, Lab 2, Cr 4.	Technical
ITSE 1450	System Analysis and Design	This course is comprehensive introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools. Lec 3, Lab 2, Cr 4.	Technical
ITSE 2402	Intermediate Web Programming	Intermediate Web Programming covers techniques for web development including server-side and client-side scripting. Lec 3, Lab 2, Cr 4.	Technical
ITSE 2409	Introduction to Database Programming	Application development using database applications using a structures query language! create queries and reports from database tables, and create documentation. Lec 3, Lab 2, Cr 4.	Technical
ITSE 2449	Advanced Visual Basic Programming	Further applications of programming techniques using Visual BASIC. Topics include file access methods, data structures and modular programming, program testing and documentation. Lec 3, Lab 2, Cr 4.	Technical
ITSW 1307	Introduction to Database (Microsoft Access)	This course offers an introduction to database theory and the practical applications of a database. Lec 3, Cr 3	Technical
ITSW 1310	Introduction to Presentation Graphic Software	This course offers instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development. Lec 3, Lab 1, Cr 3.	Technical
ITSW 1492	Special Topics Networking and Telecommunications	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. Lec 4, Lab 2, Cr 4.	Technical
ITSW 2365	Practicum- Data Processing Technology/ Technician	A practical general workplace training related to the student's general and technical course of study is supported by an individualized learning plan developed by the employer, college, and student. These guided experiences may be paid or unpaid and the course may be repeated if topics and learning outcomes vary. Practicum 21, Cr 3.	Technical
JAPN 1311	Elementary Japanese I	This course covers the fundamental skills in listening comprehension, speaking, reading, and writing of the Japanese language, including basic vocabulary, grammatical structures and culture. Lec 3, Cr 3.	Academic
JAPN 1312	Elementary Japanese II	This course covers the fundamental skills in listening comprehension, speaking, reading, and writing of the Japanese language, including basic vocabulary, grammatical structures and culture, as a continuation of JAPN 1311. Lec 3, Cr 3.	Academic
KINE 1100	Advanced Life Saving		Academic
KINE 1101	Aerobic Dance and Exercise		Academic
KINE 1102	Angling and Baitcasting		Academic
KINE 1103	Archery		Academic
KINE 1104	Badminton		Academic
KINE 1105	Ballet I		Academic
KINE 1106	Ballet II		Academic
KINE 1107	Basketball		Academic
KINE 1108	Body Mechanics (Women Only)		Academic
KINE 1109	Bowling		Academic
KINE 1110	Flag Football		Academic
KINE 1111	Folk and Square Dance		Academic
KINE 1112	Folklorico		Academic
KINE 1113	Golf		Academic
KINE 1114	Gymnastics		Academic
KINE 1115	Jazz and Modern Dance		Academic
KINE 1116	Jogging		Academic
KINE 1117	Paddle Tennis		Academic
KINE 1118	Pington		Academic
KINE 1119	Racquetball		Academic
KINE 1120	Sailing		Academic
KINE 1121	Self-Defense		Academic
KINE 1122	Soccer		Academic
KINE 1123	Softball		Academic
KINE 1124	Swimming		Academic
KINE 1125	Table Tennis		Academic
KINE 1126	Tap Dance		Academic

KINE 1127	Tennis I		Academic
KINE 1128	Tennis II		Academic
KINE 1129	Volleyball		Academic
KINE 1130	Weight Training		Academic
KINE 1131	Wrestling		Academic
KINE 1132	Surfing		Academic
KINE 1133	Basic Sports Skills		Academic
KINE 1134	Physical Conditioning		Academic
KINE 1164	Lifetime Fitness		Academic
KINE 1238	Concepts of Fitness for Life	This course is designed to improve the student's knowledge of total well-being with emphasis upon cardiovascular endurance, proper nutrition, weight control, strength and flexibility. Students will assess their own fitness needs, establish realistic goals and evaluate their progress toward reaching these goals. Lec 2, Lab 1, Cr 2.	Academic
KINE 1301	Introduction to Sports and Exercise Science	A survey course designed to introduce the prospective kinesiology education major to the history, philosophy, scientific foundations, objectives and current status of sports and exercise in educational and recreational settings. Required for Kinesiology Majors and Minors. Lec 3, Cr 3.	Academic
KINE 1304	Personal and Community Health	This is a survey course designed to acquaint the student with the major health issues of today. Includes the study of mental and social health issues, the body systems, nutrition, fitness, disease, drug use and abuse, health care systems and environmental health concerns. Lec 3, Cr 3.	Academic
KINE 1306	First Aid/First Responder	Topics of study include cardiopulmonary resuscitation, bleeding and shock, fractures, dislocations and medical emergencies. Upon successful completion of skills and knowledge tests, the student may be certified through the American Red Cross. Lec 3, Cr 3.	Academic
KINE 1308	Sports Officiating - Football, Volleyball	Instruction in the rules and techniques of officiating football and volleyball will be given. Opportunities for practice in both the classroom and college intramural setting will be provided. Lec 3, Cr 3.	Academic
KINE 1309	Sports Officiating - Basketball/Softball	Instruction in the rules and techniques of officiating basketball and softball will be given. Opportunities for practice in both the classroom and intramural setting will be provided. Lec 3, Cr 3.	Academic
KINE 1321	Coaching Athletics	Designed to provide the student with an overview of the many areas of concern involved in coaching major sports. Includes the nature of the coaching profession! organizing practices and games! psychological and sociological aspects of coaching! communications with school personnel, parents and the media! and the ethics of coaching. Lec 3, Cr 3.	Academic
KINE 1331	P.E. Activities in the Elementary Schools	A study of physical activities suitable for preadolescents from ages 4-12. Activities studied include individual and group games, movement exploration, rhythms, tumbling and fitness. Lec 3, Cr 3.	Academic
KINE 2370	Kinesiology (biomechanics)	The study of the science of human motion, including the use of implements and objects involved in the performance of movement. The course is based specifically on biomechanics, musculoskeletal anatomy and neuromuscular physiology. Lec 3, Cr 3.	Academic
KINE 3153	Physiology of Exercise and Human Performance Lab	Emphasis on demonstration of lecture concepts through hands on experiences in the lab. Maximal oxygen consumption and aerobic fitness assessment, human thermoregulation, body composition analysis, pulmonary function testing are among the topics explored. Lec 3, Cr 3.	Academic
KINE 3160	Exercise Testing and Prescription Lab	Practical application of concepts discussed in lecture. ACSM client screening, fitness assessment, metabolic equations required for prescription and development of exercise prescriptions using volunteer subjects and cases studies. All methodologies required ACSM certification explored. Lab 1, Cr 1.	Academic
KINE 3301	Psychology of Sport and Exercise	A study of the effects of psychological factors on performance in sport, as well as the effects of sport-exercise participation on psychological development and wellness. Lec 3, Cr 3.	Academic
KINE 3302	Kinesiology Curriculum for Elementary School Students	This course focuses on knowledge and theory related to designing appropriate and optimal physical curriculum for young children. Emphasis will be given to curriculum development and implementation supportive of the Texas Essential Knowledge and Skills (TEKS) for elementary school students. Lec 3, Cr 3.	Academic
KINE 3314	Dance for Children and Adolescents	A study of historical foundations and philosophical roots relating to the development of dance in the United States. Includes the forces, controversies, and leaders affecting dance as an integral part of current society. Lec 3, Cr 3.	Academic

KINE 3320	History and Principles of Sport and Movement Sciences	Study of the sporting events of early civilizations and their evolution into modern society. Includes the Olympic Games, the European influence on sports in the U.S. and the modern sports movement in the U.S. including intercollegiate and interscholastic sports. Lec 3, Cr 3.	Academic
KINE 3330	Coaching of Sports	Study of the coaching profession as a multi-dimensional role in education. Course includes study of the psychological and sociological aspects of coaching! use of coaching strategies! organizing practices and games! communication with school, parents and the media! and the ethics of coaching. The use of technology in coaching will also be examined. Lec 3, Cr 3.	Academic
KINE 3340	Principles of Wellness and Fitness	Study of the scientific principles of total well- being with emphasis upon physical fitness, proper nutrition, weight control, and stress management. Students will learn to design comprehensive wellness programs for the K-12 public school sector. Lec 3, Cr 3.	Academic
KINE 3353	Physiology of Exercise and Human Performance	Basic systematic adaptations to exercise with specific emphasis on the interrelationship of physiological functions of the human body, and the changes resulting from physical activity. Lec 3, Cr 3.	Academic
KINE 3360	Exercise Testing and Prescription	Development and implementation of exercise prescription for health-related fitness with specific respect to the following! cardiorespiratory endurance, muscular strength and endurance, flexibility and optimal body composition. Client screening, fitness assessment for prescription and metabolic equations following ACSM guidelines included. Lec 3, Cr 3.	Academic
KINE 3365	Physiology and Techniques of Strength/ Power Fitness	Advanced concepts in the conditioning of muscular strength, endurance and power are taught. Exercise prescription for health-related fitness for the general public is detailed as well as prescription for athletic performance. In addition, the theory and use of periodization, plyometrics, and interval training for sports are covered. Lec 3, Cr 3.	Academic
KINE 3370	Biomechanics	The study of the advanced principles of human movement! scientific principles learned in the course will allow the student to understand how and why the human body moves in the manner that it does. The student will also learn to analyze biomechanical technique in numerous motor skills, as required in teaching and coaching complex movement. Lec 3, Cr 3.	Academic
KINE 4309	Kinesiology Curriculum for Secondary School Students	This course focuses on knowledge and theory related to designing an appropriate and optimal physical education curriculum for adolescents. Emphasis will be given to curriculum development and implementation supportive of the Texas Essential Knowledge and Skills (TEKS) for middle and high school students. Formerly KINE 3309. Lec 3, Cr 3	Academic
KINE 4310	Measurement Techniques in Physical Exercise and Sports	Course includes knowledge and theory fundamentals of statistical measurement basics. It includes construction, selection, administration and interpretation of performance and knowledge tests for physical activities. Lec 3, Cr 3.	Academic
KINE 4311	Psychology of Sport and Exercise	A study of the affects of psychological factors on performance in sport as well as the affects of sport/exercise participation on psychological development and wellness. Formerly KINE 3311. Lec 3, Cr 3.	Academic
KINE 4313	Seminar in Sports, Dance and Exercise Science	Selected topics on sports, dance or exercise science. Current trends and theories are included. Course covers skills, legal implications and specific topics in the areas of perceptual motor skills, sports, dance and exercise science that are not available as part of the regular course offerings. Courses may be repeated for credit when topics vary, but not more than nine hours will apply to a bachelor's degree. Lec 3, Cr 3.	Academic
KINE 4322	Adapted Aquatics and Rehabilitation	This course is designed to provide students with current therapeutic, recreational, and educational, and adapted aquatic intervention techniques for individuals with mental, physical, sensory, and/or health-related impairments. Students will learn practical hands-on applications of adapted aquatics using theoretical models and best practices in the field. Lec 3, Cr 3.	Academic
KINE 4351	The Adapted Kinesiology Program	Study of adaptations for the exceptional child. Theory and implications of specific disabilities with application to exercise and sports. Characteristics of special population children as related to the physiological basis of movement. Lec 3, Cr 3.	Academic
KINE 4355	Pediatric Exercise Physiology	The purpose of this course is to provide knowledge and experience for future professionals in the field of exercise physiology that pertains primarily to children and adolescents. Training protocols and health-related fitness programs tailored to meet the developmental needs of children are covered. Lec 3, Cr 3.	Academic

KINE 4356	Motor Development	A study of motor skills and physical development from birth to adulthood with emphasis on childhood. Course includes study of neurological, physiological, intellectual, social and emotional factors that influence gross and fine movement activities. Formerly KINE 3356. Lec 3, Cr 3.	Academic
KINE 4360	Clinical Exercise Physiology	Exercise prescription for special populations is covered. Clinical description of specific medical problems is presented as well as their potential impact on the exercise prescription. Groups considered include those afflicted with diabetes, cardiovascular disease, metabolic syndrome, respiratory disorders, arthritis, cancer, HIV, and neuromuscular disorders. Lec 3, Cr 3.	Academic
KINE 4370	Management in Exercise and Health Promotion	App lied knowledge for the operation of fitness centers emphasizing the development of practical skills for management, equipment acquisition and staffing of commercial, corporate and clinical centers. Lec 3, Cr 3.	Academic
KINE 4380	Exercise Science Internship	The course consists of practical general training and experiences in health-related fitness environments. The structure if the field experience is developed in consultation with the internship site. Lec 3, Cr 3.	Academic
KINEU 1135	Activities for Elementary School Students	This course provides pre-service physical educators with information and skill development essential for the practical application of activities supportive of the Texas Essential Knowledge Skills (TEKS) for elementary school physical education. Lab 2, Cr 1.	Academic
KINEU 1136	Activities for Secondary School Students	This course provides pre-service physical educators with information and skill development essential for the practical application of activities supportive of the Texas Essential Knowledge Skills (TEKS) for secondary school physical education programs. Lab 2, Cr 1.	Academic
KINEU 2255	Health and Motor Development for EC-4	This course focuses on motor activities and health skills for young children. It includes the study of physiological, intellectual, social and emotional factors that influence gross and fine motor skills. The course is also designed to acquaint students with health issues for young children. Lec 2, Cr 2.	Academic
KINEU 2304	Outdoor Education	This course involves and introduction to outdoor adventure activities (such as rock climbing, orienteering, canoeing, backpacking, and camping) as well as an introduction to experiential activity as teaching methodology. Topics covered require academic preparation and active student participation. Lec 3, Cr 3.	Academic
LEAD 4303	Special Topics in Leadership	This course is an overview to leadership skills and styles. It focuses on the history of leadership, management theories, and organizational behavior. It also places emphasis on conflict resolution and effective communication skills. Lec 3, Cr 3.	Academic
LEADU 1301	Introduction to Public Service and Leadership	This introductory course integrates interdisciplinary and hands-on opportunities to learn leadership through service. It focuses on issues of social justice in our community, especially in areas of non-profit management, healthcare, education, advocacy, and local government. Lec 3, Cr 3.	Academic
LGLA 1301	Legal Research and Writing	This course presents the fundamentals of legal research and writing. Topics include standard and electronic legal research, and legal writing techniques including case and fact analysis and citation format. Lec 3, Cr 3.	Technical
LGLA 1303	Legal Research	This course offers instruction in law library techniques and computer assisted legal research. Lec 3, Cr 3.	Technical
LGLA 1305	Legal Writing	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. Lec 3, Cr 3.	Technical
LGLA 1307	Introduction to Law and Legal Profession	This course provides an overview of the law and the legal concepts, systems, and terminology! ethical obligations and regulations! professional trends! and issues with particular emphasis on the paralegal. Lec 3, Cr 3.	Technical
LGLA 1345	Civil Litigation	This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post trail phases of litigation. Lec 3, Cr 3.	Technical
LGLA 1351	Contracts	This course presents fundamental concepts of contract with law emphasis on the paralegal's role. Topic include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Lec 3, Cr 3.	Technical
LGLA 1353	Wills Trusts and Probate Administration	This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. Lec 3, Cr 3.	Technical
LGLA 1355	Family Law	This course presents fundamental concepts of family law with emphasis on the paralegal's role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. Lec 3, Cr 3.	Technical

LGLA 1359	Immigration Law	This course presents fundamental concepts of immigration law with emphasis on the paralegal's role. Topics include substantive and procedural law related to visa applications, deportation, naturalization, and citizenship. Lec 3, Cr 3	Technical
LGLA 2303	Torts and Personal Injury Law	This course presents fundamental concepts of tort law with emphasis on the paralegal's role. Topics include intentional torts, negligence, and strict liability. Lec 3, Cr 3	Technical
LGLA 2307	Law Office Management	This course instructs students in the basic principles and structure of management, administration, and substantive systems in the law office. Law practice technology as applied to paralegals is included. Lec 3, Cr 3.	Technical
LGLA 2309	Real Property	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. Lec 3, Cr 3.	Technical
LGLA 2313	Criminal Law and Procedure	This course instructs students in the procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions as applied to paralegals. Lec 3, Cr 3.	Technical
LGLA 2380	Cooperative Education-Paralegal/Legal Assistant	This course offers career-related activities encountered in the students' 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. Lec 1, Lab 20, Cr 3.	Technical
MAIR 1341	Domestic Cooking Equipment	Theory, sequence of operation, components and repair, electrical schematics, and troubleshooting electric components in gas and electronic ranges and microwave ovens are topics of this course. Safety for the gas systems in ranges and high voltage circuitry in microwave ovens will be emphasized. Lec 2, Lab 4, Cr 3.	Academic
MAIR 1345	Dryers, Washers, and Dishwashers	This course covers the theory, sequence of operation, components and repair, electrical schematics, a troubleshooting of components in dryers, washers, and dishwashers. Safety for the electrical and mechanical systems will be emphasized. Lec 2, Lab 4, Cr 3.	Academic
MAIR 1349	Refrigerator, Freezers, Window Air Conditioners	Theory, sequence of operation, components and repair, electrical schematics, and troubleshooting electronic components in air conditioning and refrigeration are course topics. Emphasis will be place on safety for the electrical, mechanical, and sealed systems. Lec 2, Lab 3, Cr 3.	Technical
MAIR 1391	Major Appliance	Special topics address recently identified events, skills, knowledge, and/or attitudes, and behaviors pertinent to the technology or occupations and relevant to the professional development of the student. Lec 2, Lab 3, Cr 3.	Academic
MAMT 3337	Anatomy, Positioning, and Patient Assessment	This course presents the risk factor of breast disease. Content also includes the discussion of the various pathologies identified through mammography and the anatomy and physiology of the breast. Also includes the routine and special projections of the breast. Lec 3, Cr 3.	Academic
MAMT 3338	Special Topics in Mammography	This course will include topics, which will address recently identified current events, skills, knowledge, and/or attitudes and behavior pertinent to the technology or occupation, which are relevant to the professional development of the mammography student. Lec 3, Cr 3.	Academic
MAMT 4331	Mammography Instrumentation and Modalities	This course discusses the dedicated radiography equipment necessary for breast imaging. Also includes proper technical factors, radiation protection techniques, and proper accessory equipment. Lec 3, Cr 3.	Academic
MAMT 4632	Mammographic Practicum	This course provides clinical experience in a mammography facility performing all functions including routine and special mammographic procedures, quality assurance testing and image analysis. Lec 6, Cr 6.	Academic
MANA 3361	Principles of Management	This course is a study of the management functions of planning, organizing, leading and controlling. Emphasis is placed on organizational theory and behavior. Lec 3, Cr 3.	Academic
MANA 3362	Human Resource Management	Current developments within the field of human resource management are reviewed. Covered areas are employment law, recruitment, selection, compensation, training and development, career management, motivation and performance, and collective bargaining. Lec 3, Cr 3.	Academic
MANA 3363	Operations Management	The operations function and its applicability to all kinds of organizations is the backdrop for this course. Emphasis is on fundamental managerial concepts, the integration of operations with the quality, marketing and finance functions, analytical skills, and computer based tools. Lec 3, Cr 3.	Academic

MANA 4352	Business and Society	The ethical and social responsibilities of business are analyzed using basic ethical principles. This course also examines the relationship between business and stakeholders such as employees, customers, investors and the community, and considers the impact of external factors such as cultural trends, governmental regulations, and legal rulings. Lec 3, Cr 3.	Academic
MANA 4360	Organizational Theory and Behavior	Organizational structures and individual and group behavior within organizations are the focus of this course. Covered areas are individual differences, group dynamics, leadership, motivation, goal setting, communication and decision-making. Lec 3, Cr 3.	Academic
MANA 4366	Small Business Management	A study of the special characteristics of small business. Emphasis will be placed on the selecting and starting of a small business and the essential function of management in the first years of operation. Lec 3, Cr 3.	Academic
MANA 4367	Topics in Management	The study of significant topics related to Management. Course may be repeated for credit when topic varies. Lec 3, Cr 3.	Academic
MARK 3371	Principles of Marketing	The marketing structure as it operates in our economic system. With emphasis on improving the flow of goods and services from producer to consumer. Practical application of principles and techniques designed as a beginning course in marketing. Lec 3, Cr 3.	Academic
MARK 3372	Consumer Behavior	An overall view of the basic perspectives of consumer behavior. An interdisciplinary approach is utilized by studying the fields of economics, psychology, sociology and anthropology as they relate to marketing. Emphasis is placed on the fundamental process of motivation, perception and learning, as well as analysis of individual predispositions and group influences in marketing. Lec 3, Cr 3.	Academic
MARK 4371	Sales Management and Personal Selling	The selection, training, compensation, organization, and control of a field sales organization is studied. Primary emphasis is devoted to the selection and training of the sales force for the selling process and making a sales presentation. Lec 3, Cr 3.	Academic
MARK 4372	Promotion Strategy	The development and management of an organization's promotional effort is the focus of this survey course. It includes a review of advertising, sales promotions, public relations, personal selling and direct marketing. Emphasis is placed on this coordination and integration of promotional strategy with sales force activities. Lec 3, Cr 3.	Academic
MARK 4376	Marketing Strategy	Marketing principles are applied to strategy formulation. Topics include: target market selection, market mix development and new product planning . Both consumer and industrial marketing is stressed through the use of cases, readings, and special projects. This course is recommended as the capstone course in the Marketing major. Lec 3, Cr 3.	Academic
MARK 4377	Topics in Marketing	The study of significant topics related to Marketing. Course may be repeated for credit when topic varies. Lec 3, Cr 3.	Academic
MARK 4378	Marketing Research	Quantitative research procedures and techniques utilized in business today. Problem definition, sources of research data, survey methods, questionnaire design and sampling techniques. Practical application of procedures and techniques is emphasized through class research projects. Lec 3, Cr 3.	Academic
MATH 0120	Basic Mathematics Lab	This course is intended for students needing a review of arithmetic. This course is designed to prepare students for introductory Algebra (Math 0421). Topics include addition, subtraction, multiplication and division of whole numbers, fractions, and decimals! percents! data analysis, graphs, and statistics! geometry! introduction to real numbers and algebraic expressions! and applications of these topics. Students will pursue an individualized plan of study under the supervision of a mathematics instructor. Lab 3, Cr 1.	Academic
MATH 0321	Introductory Algebra	A first course in algebra designed to prepare students for Intermediate Algebra. Topics include arithmetic and algebra of the real numbers, sets, linear equations, linear inequalities, absolute value equations and inequalities, integer exponents, adding, subtracting, multiplying, dividing and factoring polynomials, adding, subtracting, multiplying and simplifying rational expressions, complex fractions, synthetic division, and applications of these topics. Lec 3, Cr 3.	Academic
MATH 0322	Intermediate Algebra	A second course in algebra designed to prepare students for College Algebra. Topics include rational exponents and radicals, radical expressions, complex numbers, quadratic equations and inequalities, linear equations and inequalities, functions, variation, algebra of functions, symmetry, graphing quadratic functions, circles, ellipses, hyperbolas, square roots, and other useful functions, and applications of these topics. Lec 3, Cr 3.	Academic

MATH 0421	Introductory Algebra	This is a first course in algebra designed to prepare students for Intermediate Algebra (Math 0422). Topics include review of arithmetic and algebra of real numbers, sets, linear equations, linear inequalities, absolute value equations and inequalities, linear equations in two variables, graphing linear equations in two variables, integer exponents, adding, subtracting, multiplying, dividing, and factoring polynomials, and applications of these topics. Lec 3, Lab 3, Cr 4.	Academic
MATH 0422	Intermediate Algebra	This is a second course in algebra designed to prepare students for General Educational Mathematics Core Courses, which include Math 1314, Math 1324, and Math 1332. Topics include review of exponents, polynomials, and factoring, rational expressions, synthetic division, equations of lines, inequalities, and functions, joint and combined variations, linear systems, roots and radicals, quadratic equations, inequalities, and graphs, and applications of these topics. Lec 3, Lab 3, Cr 4.	Academic
MATH 1314	College Algebra	Topics in this course include the study of quadratics! polynomial, rational, and exponential functions! systems of equations! progressions! sequences and series! matrics and determinants. Lec 3, Cr 3.	Academic
MATH 1316	Trigonometry	Topics in this include trigonometric functions, right triangles, radian measure and circular functions, graphs of trigonometric functions, identities, inverse trigonometric functions, trigonometric equations, oblique triangles, complex numbers, and the practical problems. Lec 3, Cr 3.	Academic
MATH 1324	Mathematics for Business and Social Sciences I	This course is designed to meet the needs of students in business and social sciences. The topics covered include linear equations, quadratic equations, functions and graphs, inequalities, mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations applications to management, economics, and business. Lec 3, Cr 3.	Academic
MATH 1325	Mathematics for Business and Social Sciences II	This course is designed to meet the needs of students in business and social sciences. The topics covered include limits and continuity, derivatives, graphing and optimization, exponential and logarithmic functions, antiderivatives, integral applications to management, economics, and business. Lec 3, Cr 3.	Academic
MATH 1332	Math for Liberal Arts	This course is designed to meet the needs of non-science and non-business majors. The topics covered in this course include sets, logic, elementary number theory, functions, geometric concepts, mathematics of finance, and the introduction to probability and statistics. Lec 3, Cr 3.	Academic
MATH 1342	Elementary Statistics	This course provides the student with an elementary overview of the nature and uses of descriptive and inferential statistics. Topics include descriptive statistics, measures of central tendency and dispersion, probability, distributions, tests of hypothesis and estimation for large and small samples, linear regression and correlation, comparisons, and analysis of variance. Lec 3, Cr 3.	Academic
MATH 1348	Analytic Geometry	This course is designed for students with a reasonably sound background in algebra and trigonometry. Topics include basic geometric concepts, vectors, the straight line, the circle, conic sections, transformation of coordinates, curve sketching, transcendental curves, polar coordinates, parametric equations, and solid analytical geometry. Lec 3, Cr 3.	Academic
MATH 1350	Fundamentals of Mathematics for Teachers I	This course is designed for students seeking teacher certification Early Childhood through eighth grade. Topics includes sets, functions, numerations systems, integers, rational, and real numbers with an emphasis on problem solving and the use of math manipulatives. Lec 3, Cr 3.	Academic
MATH 1351	Fundamentals of Mathematics for Teachers II	This course is designed for students seeking teacher certification for levels Early Childhood through eighth grade. Topics include geometry, probability, statistics, algebraic applications, and measurement with an emphasis on problem solving and the use of manipulatives. Lec 3, Cr 3.	Academic
MATH 2305	Discrete Mathematics	This course is a study of proof techniques, asymptotic notations for growth function analysis, common functions found in algorithm analysis, manipulating and bounding summations, different methods to solve recurrences including alteration and generating functions, combinatory analysis, number theory, binomial coefficients, sets, graphs, and trees. Lec 3, Cr 3.	Academic
MATH 2318	Linear Algebra	This is an introductory course in linear algebra. Topics include in this course are finite dimensional vector spaces, linear transformations and matrices, quadratic forms, and eigenvalues and eigenvectors. Lec 3, Cr 3.	Academic

MATH 2321	Differential Equations and Linear Algebra	This course emphasizes solution techniques. Topics include differential equations, vector spaces, linear transformation, matrix/vector algebra, eigenvectors, Laplace Transform and systems of equation. Lec 3, Cr 3.	Academic
MATH 2412	Pre-Calculus Mathematics	The course includes applications of algebra and trigonometry to the study of elementary functions and their graphs including polynomial, rational, exponential, logarithmic, and trigonometric functions. Topics from analytical geometry may also be included. Lec 4 , Cr 4.	Academic
MATH 2413	Calculus I	This course covers functions, limits, and continuity! the derivative! differentiation of algebraic functions, the derivative as a rate of change, maximum and minimum problems with applications, Rolle's Theorem, the Mean-Value Theorem, higher derivates, concavity, techniques of graphing, antiderivative, the define integral and integration with applications. Lec 3, Lab 2, Cr 4.	Academic
MATH 2414	Calculus II	This course is a continuation of MATH 2413. This course covers the following topics: applications of the definite integral, differentiation, integration, and applications of logarithmic, exponential, trigonometric, hyperbolic functions and their inverses, solving differential equations, various techniques of integration with applications, improper integrals, approximation methods for definite integrals, limits of sequence infinite series, various tests for convergence of a series, power series, Taylor and Maclaurin Series, and application of power series. Lec 3, Lab 2, Cr 4.	Academic
MATH 2415	Calculus III	Topics include Vectors in space, limits of the functions of several variables, directional derivatives of functions of several variables, and multiple integration. Lec 3, Lab 2, Cr 4.	Academic
MATH 3301	History of Mathematics	This course is a study of the historical development of ideas that shape modern mathematical thinking. Although mathematicians are studied, emphasis is placed on mathematical development. Lec 3, Cr 3	Academic
MATH 3306	Foundations of Mathematics	The major objective of this course is to develop some skills that are necessary for the upper-level mathematics courses. It includes reading mathematical texts independently, understanding both mathematical English and logical symbolisms, constructing counter examples, thinking independently, and also understanding and discovering mathematical proofs. The course covers topics in logic and foundations of mathematics such as propositional logic, quantifiers, set theory, proof theory, and recursion theory. Lec 3, Cr 3.	Academic
MATH 3310	Survey of Mathematical Concepts and Principles I	This course, designed for students seeking teacher certification, is a study of Domains 1, 2, and 5 of the TExES Examination for grades 4-8 and 8-12. Topics include number concepts, algebra, mathematical processes and perspectives. The goal is to enhance prospective teachers' essential knowledge and skills necessary to teach mathematics. Lec 3, Cr 3.	Academic
MATH 3317	Survey of Mathematical Concepts and Principles II	This course, designed for students seeking teacher certification, is a study of Domain 3, 4, and 6 of the TExES Examination for grade 4-8 and 8-12. Topics include geometry, measurement, probability, statistics, instruction, and assessment. The goal is to enhance prospective teacher's essential knowledge and skills necessary to teach mathematics. Lec 3, Cr 3.	Academic
MATH 3321	Algebra I	This course provides an introduction to algebraic structures. Topics to be taken from groups, rings and fields. Lec 3, Cr 3.	Academic
MATH 3328	Advanced Linear Algebra	This course covers linear transformations, matrix representations of linear transformations, similarity of matrices, orthogonality, least squares problems, the Gram-Schmidt orthogonalization, eigenvalues and eigenvectors, systems of linear differential equations, diagonalization, Hermitian matrices quadratic forms, positive definite matrices. Lec 3, Cr 3.	Academic
MATH 3332	Geometry II	Complete overview of Hilbert's axioms (connection, order, parallels, congruence, continuity)! covex geometry (convex hull, extreme points, linear programming)! projective geometry (collineation, coordination, the Main Theorem, affine spaces). Lec 3, Cr 3.	Academic
MATH 3339	Topology	This is an introductory course in topology, one of the major branches of modern mathematics. Topics will include! sets, mappings, metric spaces, sequences in metric spaces, connectedness, and compactness. Lec 3, Cr 3.	Academic
MATH 3341	Real Analysis	This course presents a rigorous introduction to the elements of real analysis. Topics include sequences, series, functions, limits, continuity, and derivatives. Lec 3, Cr 3.	Academic

MATH 3348	Vector Analysis	This course is a study of the application of vector methods to the problems of mathematics and physics. Topics discussed include vector and scalar products, differentiation of vector-valued functions, the divergence theorem, and Stokes theorem. Lec 3, Cr 3.	Academic
MATH 3349	Differential Equations	This course concentrates on solving ordinary differential equations by a variety of methods and techniques including Laplace Transforms. Also included in this course are elementary applications problems and solving systems of linear differential equations. Lec 3, Cr 3.	Academic
MATH 3362	Discrete Structures	This course is an introduction to discrete mathematics with minimal mathematics requirements. This course extends the students' mathematical maturity and ability to deal with abstraction: topics include logic and proofs, set theory, relations, functions, algorithms, combinatory, graph theory, directed graphs and binary trees, ordered sets and lattices. Lec 3, Cr 3.	Academic
MATH 3366	Computer Algebra Systems	This is a course in high level programming language. Different programming styles are covered such as functional, rule-based, procedural and object oriented programming. A computer algebra system such as Mathematical, Maple or MatLab is used. Lec 3, Cr 3.	Academic
MATH 3379	Fundamental of Mathematics for Science and Engineering	This course covers applications of Mathematics in Chemistry, Physics, Biology, Computer Science, Engineering Technology, and Space Science as described in the NASA mission. The course provides the necessary mathematics skills for pre-service and in-service teachers. This course may be taken by students considering a career in technical or engineering technology programs. The course covers the following major areas: fundamental concepts of operations, the metric system, and measurements! fundamental algebraic concepts! relations and variations! right-triangle trigonometry! analytic geometry and peculiar graphs! vector and spatial analytic geometry! and calculus and differential equations. Lec 3, Cr 3.	Academic
MATH 3381	Statistics	This is an introductory course to statistics for students whose background includes differential and integral calculus. Topics include the fundamentals of probability theory. In descriptive statistics it covers discrete and continuous distributions, multivariate distributions, sampling distributions and the central limit theorem. In inferential statistics topics include estimation and hypothesis testing. Lec 3, Cr 3.	Academic
MATH 4321	Algebra II	This course is design to further examine selected topics from Algebra I in more depth. Lec 3, Cr 3.	Academic
MATH 4329	Number Theory	This course includes a study of divisibility of integers, prime factorizations, congruence, and Diophantine equations. Lec 3, Cr 3.	Academic
MATH 4332	Groups and Geometries	This course is for students with little experience in algebra as well as in geometry. We present incidence geometries, incidence graphs, coset geometries, automorphism of geometries, simplical complexes, adjacency algebras. The concrete objects of interest will be the projective spaces and designs which play a role in applied mathematics. Lec 3, Cr 3.	Academic
MATH 4342	Complex Analysis	This course gives rigorous introduction to the theory of functions of a single complex variable. Topics include complex number system, analytic functions, Cauchy-Riemann equation, complex integration, Cauchy's theorem, infinite series, and the residue theorem. Lec 3, Cr 3.	Academic
MATH 4343	Advanced Analysis	This course is a continuation of real analysis. It covers topics from the theory of functions of several variables. Lec 3, Cr 3.	Academic
MATH 4361	Problem Solving for Teachers	This course is designed for students seeking teacher certification. Topics will focus on mathematical problem solving using heuristics to investigate problems drawn from Algebra, Geometry, Probability, Statistics, and Calculus. Also emphasized will be Polya's problem solving model. The calculator and computer technology will be used, when appropriate. Lec 3, Cr 3.	Academic
MATH 4367	Numerical Analysis	The topics in include numerical solutions of linear and nonlinear equations and system of equations, polynomial and spline interpolation, approximation with Fourier series, numerical differentiation and integration, orthogonal polynomial and smoothing of data. Lec 3, Cr 3.	Academic
MATH 4374	Probability and Statistics	This course introduces the student to the mathematical theory of probability and statistics. Topics include probability, random variables, discrete and continuous probability distributions, expectation and variance. Moments and moment generating functions and the central limit theorem. Lec 3, Cr 3.	Academic
MATH 4391	Special Topic in Mathematics	This course covers special undergraduate topics in the mathematics not offered elsewhere in the department. May be repeated for credit. Lec 3, Cr 3.	Academic

MATHU 2332	Geometry I	Euclidean geometry (congruence axioms and theorems with proofs, polygons), analytics geometry (coordinatization over the real numbers), transformational geometry (basic results in GL (2,R) and GL (3,R)), axiomatics introduction into Projective Geometry. Lec 3, Cr 3.	Academic
MBST 1191	Special Topics in Mason and Tile Setter	Course topics address recently identified current events, skills, knowledges, and/or attitudes and behavior 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. Lec 1, Cr 1.	Technical
MCHN 1302	Machinist II	A study of different blueprints, with emphasis on mechanical parts and the application of machine shop tools to the production of the components and parts. Includes the determination of operations required based on part geometry, features and tolerance. Application of CAD to production of blueprints. Lec 3, Cr 3	Technical
MCHN 1305	Metals and Heat Treatment	Designed for students going into the workforce as CNC Operators, manual machinists, tool designers, or heat treat operators. Topics include properties of metal and heat treatment of metals. Lec 2, Lab 3, Cr 3	Technical
MCHN 1320	Precision Tools and Measurement	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. Lec 2, Lab 4, Cr 3.	Technical
MCHN 1332	Bench Work and Layout	An introduction to bench work and layout. Application of the use theory of tools including, hand tools, micrometers, height gages, pedestal grinders, and layout tools. Includes principles of dimensional measurements and accuracy. Lec 1, Lab 8, Cr 3	Technical
MCHN 1335	Grinders, Outside, Internal, Surface	An introduction to types and operation of outside diameter, internal diameter, and surface grinders, this course emphasize on identification, selection, and replacement of grinding wheels. Lec 3, Lab 3, Cr 3.	Technical
MCHN 1338	Machining I	An introduction to machine shop theory, math and terminology, basic bench work, and part layout using a variety of common measuring tools. Application and basic operation of machine tools, such as, band saws, grinders, drill presses, lathes and mills, with common hand tools. Lec 1, Lab 8, Cr 3	Technical
MCHN 1341	Basic Machine Shop II	A continuation of Basic Machine Shop I. Lec 1, Lab 8, Cr 3	Technical
MCHN 1343	Machine Shop Mathematics	Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses. Lec 3, Cr 3	Technical
MCHN 1352	Intermediate Machine Shop I	Operation of drills, milling machines, lathes, and power saws. Includes precision measuring techniques and an introduction to CNC machining. Lec 2, Lab 2, Cr 3	Technical
MCHN 1354	Intermediate Machine Shop II	Operation of drills, milling machines, lather, and power saw. Includes precision measuring techniques and an introduction of CNC machining. Lec 2. Lab 2, Cr 3.	Technical
MCHN 1391	Special Topics: Print Reading	This course covers recently identified current events, skills, knowledge, and/or attitudes and behavior pertinent to technology or occupation and relevant to the professional development of the student, specially as it applies to blueprint reading for the machining trades. Lec 3, Cr 3.	Technical
MCHN 1419	Manufacturing Materials and Processes	A basic study of various materials, used in the metals industry and the chemical, physical, and mechanical properties of various metals. This course emphasizes manufacturing processes, including casting, forming, and machining. Lec 3, Lab 3, Cr 4.	Technical
MCHN 2303	Fundamentals of C.N.C Machine Controls	An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Lec 2, Lab 3, Cr 3.	Technical
MCHN 2331	Operation of C.N.N Turning Centers	A continuation of Fundamentals of CNC Turning Centers, this course identifies the applications of Computer Numerical Control (CNC) for turning centers and stating the purpose and functions of chucking and turning. Lec 2, Lab 3, Cr 3.	Technical
MCHN 2333	Advanced Lathe Operations	In this study of advanced lathe operations, students 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. Lec 2, Lab 3, Cr 3.	Technical
MCHN 2337	Advanced Milling Operation	A continuation of Intermediate Machine Shop I. Includes programming and operation of CNC machines. Lec 1, Lab 3, Cr 2.	Technical

MDCA 1343	Medical Insurance	This course emphasizes ICD-9 and CPT coding of office procedures for payment/ reimbursement by patient or third party and prevention of insurance fraud. Additional topics may include managed care or medical economics. Lec 3, Cr 3.	Technical
MEET 3333	Mechanical Subsystem Design	Selection and computer-aided graphical representation of mechanical subsystems for the transmission of mechanical power and/or generation of mechanical motion. Component selection of gears, cams, belt and chain drives, clutches and transmissions will use data sources of contemporary manufacturers ranging from vendor catalogs to computerized databases. Lec 2, Lab 3, Cr 3.	Academic
MEET 3430	Transport Technologies I	This course covers the zeroth, first, and second laws of thermodynamics, fluid properties, conduction, convection and radiant heat transfer. Lec 3, Lab 3, Cr 3.	Academic
MEET 3431	Transport Technologies II	This course deals with the analysis and applications of fluid mechanics and fluid power to mechanical systems, fluid components and control of hydraulic and pneumatic systems. Lec 3, Lab 3, Cr 4.	Academic
MEET 4325	Mechanical Power Systems	Technology of prime movers and their operating characteristics! plants for generating electric power, internal and external combustion engines, motors and turbines. Lec 2, Lab 3, Cr 3.	Academic
MFET 3311	International Quality Assurance Systems	Study of the statistical methods used in international markets for the assurance of product quality. International standards and practices including ISO 9000 will be examined, along with practical fundamentals of control charts, correlation, regression and design of experiments. Lec 3, Cr 3.	Academic
MFET 3320	Product and Process Design	Application of the engineering design and problem solving process for products and Manufacturing processes. Concepts of product life cycle, reliability, reparability, engineering specifications, productivity and product cost will be introduced. Lec 2, Lab 3, Cr 3.	Academic
MFET 3325	Manufacturing Process Planning	Introduction to basic Industrial Engineering functions including process engineering, work analysis, workplace design, and motion studies, line balancing, inventory control and material handling systems. Lec 3, Cr 3.	Academic
MFET 3331	Computer Aided Manufacturing	Introduction to the integration of design and manufacturing in computer-based systems. Applications of engineering design theory and methodology, 2D and 3D graphics, dimensions, tolerances and fits. Extensive use of commercial Computer Aided Design/CAM systems. Lec 2, Lab 3, Cr 3.	Academic
MFET 3332	Robots in Manufacturing	This course deals with the technology and application of robots in a Computer Integrated Manufacturing (CIM) environment by providing understanding of robotics hardware and software. Digital interfacing of robots with other CIM components will be introduced. Robotics cell design and the socio-economic impact of robotics will also be discussed. Lec 2, Lab 3, Cr 3.	Academic
MFET 3341	Electronic Assembly Technology	Basics of assembly equipment and processes for printed circuit board assembly including surface mount, insertion machines, screen printing, soldering, cleaning and testing. Lec 2, Lab 3, Cr 3.	Academic
MFET 3351	Plastic Manufacturing Technology	Focuses on the important relationship between Material properties, molding processes, product design and performance of finished products. Lec 2, Lab 3, Cr 3	Academic
MFET 4320	Materials and Processes	Introduce concepts needed to understand, develop, and use any material for engineering applications. Learn structures, properties and applications of common materials in electrical engineering. Understand the processes used to create products from various materials. Study current manufacturing process technologies and their integration into today's industry. Lab experiments will determine material properties. Lec 2, Lab 3, Cr 3.	Academic
MFET 4321	Designed Experimentation	Application of computer systems to the design and execution of engineering experimentation for product and process design, analysis and problem solving. Covers classical and modern factorial experimentation techniques, response surface analysis, experimental design, execution and data analysis. Lec 3, Cr 3	Academic
MFET 4360	International Environmental Issues In Manufacturing	Concepts of pollution prevention, international regulations including ISO 14000 and environmental impact on a global basis as it relates to manufacturing activities. Lec 3, Cr 3	Academic
MLAB 1166	Practicum	Practical general training and experiences in the workplace. The college and the college employer develop and document and individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. Lab 10, Cr 1.	Technical

MLAB 1167	Practicum	Practical general training and experiences in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. Lab 10, Cr 1.	Technical
MLAB 1201	Introductory to Clinical Laboratory	An introduction to clinical laboratory science, including quality control, laboratory math, safety basic laboratory equipment, laboratory setting, accreditation and certification. Lec 1, Lab 4.	Technical
MLAB 1211	Urinalysis and Body Fluids	This course is an introduction to the study of urine and body fluids analysis. It includes the anatomy and physiology of the kidney, and physical, chemical, and microscopic examination of urine, cerebrospinal fluid, and other body fluids as well as quality control, quality assurance and safety. Lec 1, Lab 4, Cr 2.	Technical
MLAB 1227	Coagulation	This course is based in coagulation theory, procedures, and practical applications. It includes quality control, quality assurance, safety and laboratory procedures which rely on commonly performed manual and/or semi-automated methods. Lec 1, Lab 4, Cr 2.	Technical
MLAB 1260	Clinical	This is 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. Clinical 12, Cr 2.	Technical
MLAB 1263	Clinical	This is 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. Clinical 12, Cr 2.	Technical
MLAB 1331	Parasitology/Mycology	This course is a study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures, quality control, quality assurance, and safety. Lec 2, Lab 4, Cr 3.	Technical
MLAB 1335	Immunology/ Serology	This course is 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 as well as quality control, quality assurance, and safety. Lec 2, Lab 4, Cr 3.	Technical
MLAB 1415	Hematology	This course applies the study of blood cells in normal and abnormal conditions. It instructs in the theory and practical application of hematology procedures, including quality control, quality assurance, safety, manual and/or automated methods as well as blood cell maturation sequences, and normal and abnormal morphology with associated diseases. Lec 2, Lab 8, Cr 4.	Technical
MLAB 2132	Seminar in Medical Laboratory Technology	This course is designed to reinforce didactic information with laboratory methodologies and allow exploration of advanced techniques in medical laboratory technology. Lec 1, Cr 1.	Technical
MLAB 2166	Practicum	Practical general training and experiences in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. Lab 10, Cr 1.	Technical
MLAB 2167	Practicum	Practical general training and experiences in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates to the workplace training and experiences to the student's general and technical course of study. Lab 10, Cr 1.	Technical
MLAB 2260	Clinical	This is 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. Clinical 12, Cr 2.	Technical
MLAB 2263	Clinical	This is 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. Clinical 12, Cr 2.	Technical
MLAB 2431	Immunohematology	This course covers the study of blood antigens and antibodies. It presents quality control, basic laboratory technique and safety. Includes the principles, procedures and clinical significance of test results in genetics, blood group systems and pretransfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn. Lec 4, Lab 4, Cr 4.	Technical
MLAB 2501	Clinical Chemistry	This course is an introduction of the principles and procedures of various tests performed in Clinical Chemistry. This course 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 laboratory techniques, chemical laboratory safety, electrolytes, acid-base balance, proteins, carbohydrates, lipids, enzymes, metabolites, endocrine function, and toxicology. Lec 4, Lab 4, Cr 5.	Technical

MLAB 2534	Clinical Microbiology	This course is an instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, quality control, quality assurance, safety, setup, identification, susceptibility testing and reporting results. Lec 3, Lab 8, Cr 5.	Technical
MLAB 4112	Advanced Hematology	Specialized procedures in hematology with an emphasis on body fluid analysis. Lec 1, Cr 1.	Academic
MLAB 4115	Advanced Immunology	Advanced concepts in clinical immunology with an emphasis on specialized tests including HLA system. Abnormalities of the immune system will be emphasized. Lec 1, Cr 1.	Academic
MLAB 4303	Medical Laboratory Leadership	An introduction to the leadership roles and responsibilities of the clinical laboratorian in management, supervision and education as well as regulatory and legal aspects of laboratory science. Lec 3, Cr 3.	Academic
MLAB 4314	Advanced Immunohematology	Lecture and laboratory stress the detection, identification and characterization of rarer and a typical antigens, antibodies, compatibility testing, blood component therapy and problem solving techniques. Lec 2, Lab 5, Cr 3.	Academic
MLAB 4322	Advanced Clinical Chemistry	Discussion of special procedures and instrumentation in the clinical chemistry laboratory including toxicology therapeutic drug monitoring and clinical correction of biochemical results as well as problem solving strategies. Lec 3, Cr 3.	Academic
MLAB 4631	Advanced Clinical Microbiology	Lecture and laboratory emphasize fastidious bacteria, fungi, viruses and rickettsia. Disease processes, therapy and prevention as they relate to microbiology will also be emphasized. Lec 5, Lab 5, Cr 6.	Academic
MRIT 3330	Special Topics in Magnetic Resonance Imaging Technology	Topics address recently identified current events, skills, knowledge, or occupation and relevant to the professional development of the student. Lec 3, Cr 3.	Academic
MRIT 3334	Magnetic Resonance Equipment and Methodology	A study of the actual operational control of magnetic resonance imaging. Theory and application of magnetic resonance imaging equipment and the principles of the patient. Lec 3, Cr 3.	Academic
MRIT 3664	Clinical Practicum	Practical workplace clinical experience in MR scanning, patient screening and related activities. This course is competency based rather than time based. If the student needs more time to complete the required competences. Lab 18, Cr 6.	Academic
MRIT 4331	Cross-Sectional Anatomy	This course provides the student with a basic knowledge of cross-sectional anatomy. This course provides the foundation needed to recognize anatomic structures in MR images. Lec 3, Cr 3.	Academic
MRKG 1311	Principles of Marketing	This course provides an introduction to basic 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. Lec 3, Cr 3.	Technical
MUAP 1187	Applied Music I	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1 .	Academic
MUAP 1188	Applied Music II	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 1287	Applied Other I	The following courses are lower division applied music courses for music majors seeking teacher certification. The student must pass an entrance audition to gain admission into the first semester of applied music, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Students normally progress to the next higher level each semester. Occasionally it may require more than one semester of study to accomplish this process. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 1, Practicum 10, Cr 2.	Academic

MUAP 1288	Applied Other II	The following courses are lower division applied music courses for music majors seeking teacher certification. The student perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Students normally progress to the next higher level each semester. Occasionally it may require more than one semester of study to accomplish this process. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 1387	Applied Other I	The following courses are lower division applied music courses for music majors NOT seeking teacher certification. The student must pass an entrance audition to gain admission into the first semester of applied music, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 3.	Academic
MUAP 1388	Applied Other II	The following courses are lower division applied music courses for music majors NOT seeking teacher certification. The student perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 3.	Academic
MUAP 2187	Applied Music III	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 2188	Applied Music IV	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 2287	Applied Other III	The following courses are lower division applied music courses for music majors seeking teacher certification. The student perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Students normally progress to the next higher level each semester. Occasionally it may require more than one semester of study to accomplish this process. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 2288	Applied Other IV	The following courses are lower division applied music courses for music majors seeking teacher certification. The student perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Students normally progress to the next higher level each semester. Occasionally it may require more than one semester of study to accomplish this process. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 1, Practicum 10, Cr 2.	Academic

MUAP 2387	Applied Other III	The following courses are lower division applied music courses for music majors NOT seeking teacher certification. The student perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 3.	Academic
MUAP 2388	Applied Other IV	The following courses are lower division applied music courses for music majors NOT seeking teacher certification. The student must perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 3.	Academic
MUAP 3101	Applied Music V	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, present a sophomore recital appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 3102	Applied Music VI	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 3201	Applied Music V	The following courses are upper division applied music courses for music majors seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Students must complete their junior or senior recital before student teaching. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 3202	Applied Music VI	The following courses are upper division applied music courses for music majors seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Students must complete their junior or senior recital before student teaching. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 3281	Applied Voice V		Academic
MUAP 3301	Applied Music V	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 3, Cr 3.	Academic
MUAP 3302	Applied Music V I	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 3, Cr 3.	Academic

MUAP 3401	Applied Music V	The following courses are upper division applied music courses for music majors NOT seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 4.	Academic
MUAP 3402	Applied Music Vi	The following courses are upper division applied music courses for music majors NOT seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 4.	Academic
MUAP 4101	Applied Music VII	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 4102	Applied Music VIII	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 1, Cr 1.	Academic
MUAP 4201	Applied Music VII	The following courses are upper division applied music courses for music majors seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Students must complete their junior or senior recital before student teaching. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 4202	Applied Music VIII	The following courses are upper division applied music courses for music majors seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The process of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Students must complete their junior or senior recital before student teaching. Lab 1, Practicum 10, Cr 2.	Academic
MUAP 4301	Applied Music V II	This applied music course is individualized instruction in the student's instrument of voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 3, Cr 3.	Academic
MUAP 4302	Applied Music V III	This applied music course is individualized instruction in the student's instrument or voice, intended for music majors seeking teacher certification. Students must perform on a student recital, appear before a faculty jury, be concurrently enrolled in two ensembles and attend a number of live performances approved by the music faculty. Lab 3, Cr 3.	Academic

MUAP 4401	Applied Music VII	The following courses are upper division applied music courses for music majors NOT seeking teacher certification. The student must have completed four semesters of lower division applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester . Lab 2, Practicum 20, Cr 4.	Academic
MUAP 4402	Applied Music VIII	The following courses are upper division applied music courses for music majors NOT seeking teacher certification. The student on applied music on the same instrument, presented a sophomore recital, perform on a student recital, appear before the faculty jury, be concurrently enrolled in two ensembles and attend a set number of live performances approved by the Music Faculty. See the Chair of the Fine Arts Department for details. Occasionally it may require more than one semester of study to accomplish this progress. The progress of each student from one semester to another is dependent on the faculty jury held at the conclusion of each semester. Lab 2, Practicum 20, Cr 4.	Academic
MUEN 1121	Wind Ensemble	The Wind Ensemble studies and performs a wide variety of music representing the literature and genres of wind music throughout history. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1122	Jazz Band	Jazz Band is dedicated to the study and performance of music in the big band tradition. Membership is open to the entire University student population and is determined by permission of the director (s) through audition. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1123	Symphony Orchestra	The symphony Orchestra rehearses and performs symphonic literature composed and arranged for the symphonic or chamber orchestra. Membership is open to the entire University student population. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1131	Brass Ensemble	The Brass Ensemble studies and performs a wide variety of music representing the literature and genres of brass music throughout history. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1132	Percussion Ensemble	The Rio Bravo Percussion Ensemble is a chamber ensemble dedicated to the performance of traditional to contemporary music written expressly for percussion. Membership is determines by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1133	Trumpet Ensemble	The Trumpet Ensemble studies and performs a wide variety of music representing the literature and genres of trumpet music throughout history. Membership is open to the entire University population and is determined by the permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1134	Flute Ensemble	The Flute Ensemble studies and performs a wide variety of music representing the literature and genres of flute music throughout history. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1135	Jazz Combo	Jazz Combo is dedicated to the study and performance of jazz literature in the small ensemble tradition. Membership is open to the entire University student population and is determined by the permission of the director(s) through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1136	String Ensemble	The String Ensemble is a chamber ensemble that rehearses and performs music from different eras composed and arranged for the string quartet and/or string orchestra. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1137	Guitar Orchestra	The Guitar Orchestra emphasizes basic ensemble performance skills, reading ability, improvisation and repertoire. Membership is determined by permission of the director through audition. Advanced guitar skills required. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic

MUEN 1138	Scorpio Consort	The Scorpio Consort is a small ensemble focusing on the music of the Renaissance and early Baroque eras. Members of the group sing and perform on various sizes of the recorder in Renaissance attire. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1139	Mariachi Escorpion	Mariachi Escorpion is dedicated to the study and performance of mariachi music. It is a performance course with emphasis on the different stylistic trends of the mariachi repertoire. Membership is determined by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1140	Mariachi Luna Azteca	Mariachi Luna Azteca is made of women interested in the study and performance of mariachi music. It is performance course with emphasis on the different stylistic trends of the mariachi repertoire. Membership is determined by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1141	Chamber Ensembles	Chamber Ensembles offer the student the opportunity to perform without a conductor in small ensemble- such as woodwind or brass quintets, or specialized vocal ensembles- that are coached by a faculty member. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1142	Accompanying	Accompanying introduces students to the skills necessary to be effective collaborative pianists, including sight reading, ensemble playing, score reading and communication skills. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1151	University Choir	The University Choir studies and performs a wide variety of choral music, from madrigals and folk songs to modern arrangements and masterworks. Membership is open to the entire University students population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 1152	Bravo Opera Workshop	The Bravo Opera Company studies and performs a wide variety of music and works of the music theater. Membership is determined by permission of director through audition. Course my be repeated for additional credit. Lec 2, Lab 2, Cr 1.	Academic
MUEN 1161	Master Chorale	Master Chorale is an elite choral ensemble open to music and non-music majors through audition and director approval. The Master Chorale studies and performs outstanding choral literature of all eras and styles. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3121	Wind Ensemble	The Wind Ensemble studies and performs a wide variety of music representing the literature and sonority of sounds of the great eras of music history up to the contemporary sounds of today's composers. Membership is determined by permission of director through audition. Course may be repeated for credit. Lab 4, Cr 1.	Academic
MUEN 3122	Jazz Band	Jazz Band is dedicated to the study and performance of music in the big band tradition. Membership is open to the entire University student population and is determined by the permission of the director(s) through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3123	Symphony Orchestra	The symphony Orchestra rehearses and performs symphonic literature composed and arranged for the symphonic or chamber orchestra. Membership is open to the entire University student population. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3131	Brass Ensemble	The Brass Ensemble studies and performs a wide variety of music representing the literature and genres of brass music throughout history. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3132	Percussion Ensemble	The Rio Bravo Percussion Ensemble is a chamber ensemble dedicated to the performance of traditional to contemporary music written expressly for percussion. Membership is determines by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3133	Trumpet Ensemble	The Trumpet Ensembles studies and performs a wide variety of music representing the literature and genres of trumpet music throughout history. Membership is open to the entire University population and is determined by the permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic

MUEN 3134	Flute Ensemble	The Flute Ensemble studies and performs a wide variety of music representing the literature and genres of flute music throughout history. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3135	Jazz Combo	Jazz Combo is dedicated to the study and performance of jazz literature in the small ensemble tradition. Membership is open to the entire University student population and is determined by the permission of the director(s) through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3136	String Ensemble	The String Ensemble is a chamber ensemble that rehearses and performs music from different eras composed and arranged for the string quartet and/or string orchestra. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3137	Guitar Orchestra	The Guitar Orchestra emphasizes basic ensemble performance skills, reading ability, improvisation and repertoire. Membership is determined by permission of the director through audition. Advanced guitar skills required. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3138	Scorpio Consort	The Scorpio Consort is a small ensemble focusing on the music of the Renaissance and early Baroque eras. Members of the group sing and perform on various sizes of the recorder in Renaissance attire. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3139	Mariachi Escorpion	Mariachi Escorpion is dedicated to the study and performance of mariachi music. It is a performance course with emphasis on the different stylistic trends of the mariachi repertoire. Membership is determined by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3140	Mariachi Luna Azteca	Mariachi Luna Azteca is made of women interested in the study and performance of mariachi music. It is a performance course with emphasis on the different stylistic trends of the mariachi repertoire. Membership is determined by permission of the director through audition. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3141	Chamber Ensembles	Chamber Ensembles offer the student the opportunity to perform without a conductor in small ensemble- such as woodwind or brass quintets, or specialized vocal ensembles- that are coached by a faculty member. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3142	Accompanying	Accompanying introduces students to the skills necessary to be effective collaborative pianists, including sight reading, ensemble playing, score reading and communication skills. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3151	University Choir	The University Choir studies and performs a wide variety of choral music, from madrigals and folk songs to modern arrangements and masterworks. Membership is open to the entire University student population. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3152	Bravo Opera Workshop	The Bravo Opera Company studies and performs a wide variety of music from the opera repertoire and works of musical theatre. Membership is open to the entire University community and is determined by permission of the director through audition. Course may be repeated for additional credit. Lab 4, Cr 1.	Academic
MUEN 3161	Master Chorale	Master Chorale is an elite choral ensemble open to music and non-music major through audition and director approval. The Master Chorale studies and performs outstanding choral literature of all eras and styles. May be repeated for additional credit. Lab 4, Cr 1.	Academic
MUSI 1111	Elementary Sight Singing and Ear Training I	Singing tonal music in treble, bass, and clefs. Aural study, including dictation, of rhythm, melody, and diatonic harmony. Lab 3, Cr 1.	Academic
MUSI 1112	Elementary Sight Singing and Ear Training II	Continuation of MUSI 1111 Elementary Sight Singing and Ear Training I. Lab 3, Cr 1.	Academic
MUSI 1114	Keyboard Skills I	This course is designed to teach students keyboardists the requisite skills to interpret and perform works in the jazz idiom. Lab 3, Cr 1	Academic
MUSI 1115	Keyboard Skills II	A continuation of Keyboard Skills I. Lab 3, Cr 1.	Academic
MUSI 1162	Diction I	A study of phonetic sounds of the German and Italian languages to promote the ability to sing in those languages, utilizing the International Phonetic Alphabet (IPAM). Lab 2, Cr 1.	Academic

MUSI 1165	Diction II	A continuation of MUSI 11162 with an emphasis on the Spanish and French languages. Lab 2, Cr 1	Academic
MUSI 1166	Woodwind Class I	Introduction to the mechanics and care of the flute, clarinet, and saxophone! embouchure, breath control, tonguing and intonation problems, literature, maintenance, and minor repair are emphasized. Lec 3, Cr 1	Academic
MUSI 1168	Brass Class I	A study of the techniques of playing the trumpet and French horn. Topics covered include the embouchure, articulation, breath control, tone production, equipment, brass instrument history, transportation, maintenance and repair. Lab 3, Cr 1	Academic
MUSI 1181	Piano Class	Development of piano techniques and musical style in a class situation. This course is intended and usually limited to music majors and minors. Others may be admitted to this course as room permits. This course may be repeated up to four times for credit. In each subsequent taking of this course the level of difficulty increases. Music majors must be enrolled in this course until they pass the piano proficiency exam. Students must pass proficiency before student teaching. Lab 3, Cr 1	Academic
MUSI 1183	Voice Class I	Introduction to instruction in the fundamentals of singing, with emphasis on breathing and tone production. Lab 3, Cr 1	Academic
MUSI 1184	Voice Class II	Emphasis on voice projection, clarity of tone and song interpretation. Continuation of MUSI 1183. Lab 3, Cr 1	Academic
MUSI 1188	Percussion Class I	Special attention is given to hand position, sticking techniques and tuning of snare, bass and trap drums and timpani. Cymbals and other utility percussion instruments, their uses and effects, will also be studied. Lab 3, Cr 1	Academic
MUSI 1189	Strings Class I	Introduction to the fundamentals of the viola, cello and bass, with emphasis on basic technique and bowing. Lab 3, Cr 1	Academic
MUSI 1192	Guitar Class I	Development of guitar technique and musical style in a class situation. Lab 3, Cr 1	Academic
MUSI 1193	Guitar Class II	Continuation of MUSI 1192. Lab 3, Cr 1	Academic
MUSI 1211	Music Theory I	Analysis and writing of tonal melody and diatonic harmony up to and including the 7th chords. Analysis and writing of small compositional forms. Correlated study at the keyboard. Lec 3, Cr 2.	Academic
MUSI 1212	Music Theory II	Continuation of MUSI 1211 Music Theory I. Lec 3, Cr 2.	Academic
MUSI 1263	Improvisation	Designed to provide background in the art of improvisation and knowledge of basic materials and practices as a foundation for improvising or extemporaneous playing. Lec 1, Lab 2, Cr 2	Academic
MUSI 1301	Music Fundamentals	An introduction to the elements of music. Includes study of music reading in notation, rhythm, time signature and meters, scales, key signatures, intervals, and chords. Includes an introduction to sight singing. Lec 3, Cr 3.	Academic
MUSI 1304	Teaching Music in the Elementary School	Students will learn the basic principles, elements, history, and teaching methodologies of music and apply the knowledge to appropriate strategies for classroom instruction. Lec 3, Cr 3.	Academic
MUSI 1306	Music Appreciation	A non-technical survey course designed for the intelligent appreciation of traditional musical styles represented throughout history. Recording, videos, and live performances help illustrate the influence of music within the various fine arts. Lec 3, Cr 3.	Academic
MUSI 1308	Music Literature and History I	This course is a study of musical styles, genres, composers and literature from selected world music cultures and from the western art music tradition from antiquity through the Renaissance. Lec 3, Lab 1, Cr 3.	Academic
MUSI 2111	Advanced Sight Singing and Ear Training I	Singing more difficult tonal music. Aural study, including dictation, of more complex rhythm, and melody. Lab 3, Cr 1.	Academic
MUSI 2112	Advanced Sight Singing and Ear Training II	Continuation of MUSI 2111 Advanced Sight Singing & Ear Training I. Lab 3, Cr 1.	Academic
MUSI 2166	Woodwind Class II	Introduction to the mechanics and care of double reed instruments (oboe and bassoon)! embouchure, breath control, tonguing, literature, maintenance, and minor repair and intonation problems are emphasized. Continuation of MUSI 1166. Lab 3, Cr 1.	Academic
MUSI 2168	Brass Class II	Introduction to the mechanics and care of the trombone, euphonium and tuba! embouchure, articulation, breath control, tone production of equipment, bass instrument history, transposition, maintenance and repair. Continuation of MUSI 1168. Lab 3, Cr 1.	Academic

MUSI 2211	Music Theory III	The study of figured bass, alto and tenor clfes, elementary formal concepts, intervals, scales, chords structure, chord progressions simple cadences, use of inversions, non-harmonic tones, seventh chords, modulations and harmonization of melodies. Part-writing, sight singing, keyboard and aural skills are also included. Lec 3, Cr 2.	Academic
MUSI 2212	Music Theory IV	Continuation of MUSI 2211, MUSI Theory III. Lec 3, Cr 2.	Academic
MUSI 2310	Special Topics in Music	A variety of special topics in music. Topics will be of a survey nature and may include: Jazz, Rock, Folk, Contemporary Music, Latin American Music and Texas Border Music. Course may be repeated for credit. Topics will vary. Open to all college students. Lec 3, Cr 3.	Academic
MUSI 3159	Opera Workshop	A study and performance of music selected from the opera repertoire and works of the music theater. Membership is determined by permission of director through audition. Course may be repeated for additional credit. Lec 2, Lab 2, Cr 1	Academic
MUSI 3170	Performance Recital	Public performance of specific applied literature assigned by the students' major applied instructor. This course is intended for the music major NOT seeking teacher certification. Lab 1, Cr 1	Academic
MUSI 3211	Orchestration and Arranging	A study of the basic techniques of instrumentation, including ranges, transpositions, and characteristics of band, jazz band and orchestral instruments. This course will also study the basic techniques of vocal arranging. Lec 2, Cr 2.	Academic
MUSI 3289	Introduction to Conducting	An introduction to the basic techniques of conducting. This course is intended both instrumental and choral music majors. Lab 3, Cr 2.	Academic
MUSI 3304	Elementary Music Techniques - General	This general music course provides an introduction to the following elementary music methods and approaches: Kodaly, Orff, Dalcroze, Music Memory, and CM (Comprehensive Musicianship). It also surveys the National Standards in Music Education and the National Assessment of Music Education in the schools. Lec 3, Cr 3.	Academic
MUSI 3305	History and Style of Mariachi	The History and Style of Mariachi will cover the history of mariachi music and its vicissitudies. The course will cover the styles of mariachi music as to the regions and pieces performed by the ensemble. Lec 3, Cr 3.	Academic
MUSI 3306	Secondary Choral Techniques	This course provides an introduction to: basic choral literature for intermediate and secondary choirs! small ensemble literature! solo vocal repertoire! jazz/show choir/choreography! concert programming! counting systems! sight-reading methods and texts. It also surveys the rule, regulations, and competition of the University Interscholastic League and the T.B.A. Texas Bandmasters Association. Lec 3, Cr 3.	Academic
MUSI 3307	Secondary Instrumental Techniques	This course provides an introduction to the following: solo instrumental repertoire! concert programming! counting systems! sight-reading methods and texts! jazz band literature and improvisation materials. It also survey the rules, regulations, and competition of the University Interscholastic League and the T.B.A. Texas Bandmasters Association. Lec 3, Cr 3.	Academic
MUSI 3308	Music History II	Music History II is a comprehensive study of musical styles, genres, composers and literature of the Western art music tradition from the seventeenth and eighteenth centuries. Lec 3, Lab 1, Cr 3.	Academic
MUSI 3309	Music History III	Music History III is comprehensive study of musical styles, genes, composers and literature of the Western art music tradition from the nineteenth and twentieth centuries. Lec 3, Lab 1, Cr 3.	Academic
MUSI 3310	Jazz Arranging	This course investigates the various techniques used in composing and arranging for the small and large jazz ensembles. Course topics include: instrumental ranges, transpositions, basic chord voicings and reharmonization. Several written arrangements for the various ensembles common to the genre will be part of the course requirements. Lec 3, Cr 3.	Academic
MUSI 3312	Counterpoint and Analysis	A survey of polyphony of the eighteenth through the twentieth centuries with emphasis on creative projects. Lec 3, Cr 3.	Academic
MUSI 3313	Advanced Jazz Harmony	This course is a study of advanced concepts in jazz harmony and counterpoint. Topics will include the following: reharmonization, superimposition, Coltrane analytical techniques, and advanced improvisation techniques. Lec 3, Cr 3.	Academic
MUSI 3363	Intermediate Jazz Improvisation	This course is a continuation of MUSI 1263 Improvisation. Application of the Locrian, Lydian and Phrygian modes, to jazz improvisation will be studied. Additionally the whole-tone, diminished and altered dominant scale application will be studied. Lec 3, Cr 3.	Academic

MUSI 3370	Topics in Music Literature	Topics in Music Literature is a study of performance practice and literature applied to various topics in both instrumental and vocal music. Special emphasis will be given to solo literature with additional consideration given to chamber music and teaching literature. Course may be repeated for credit when the topics vary. Lec 3, Cr 3.	Academic
MUSI 3380	Music Pedagogy	Music Pedagogy is a program that prepares individuals to provide instruction and tutoring to clients in private and institutional settings specially associated with the individual's area of instrumental/vocal concentration. Lec 3, Cr 3.	Academic
MUSI 4211	Computer Applications in Music	An introduction to computer programs important to the musician and music educator. Topics covered include MIDI applications, sequencing, music notation, word processors, spreadsheet, classroom management programs, marching drill programs and the Internet. Lec 3, Cr 2.	Academic
MUSI 4289	Advanced Conducting	The study and application of advanced conducting techniques with emphasis on the development of analytical and interpretive skills in both instrumental and choral conducting. Lec 2, Cr 2.	Academic
MUSI 4301	Senior Experience in Music	This course provides a capstone experience for the music major. It is designed to make connections of the various elements of the music degree. This course also serves as a review for the TExES teacher certification exam. Lec 3, Cr 3.	Academic
MUSIU 1105	Mariachi Methods	Mariachi Methods is an intensive study of the principles and methods of mariachi music pedagogy. This course may be repeated for credit when the topic varies. The topics are: Mariachi trumpet, voice, strings/harp, and armonia/guitarron. May be taken six times for a total of six credit hours. Lab 3, Cr 1.	Academic
MUSIU 2313	Fine Arts in Elementary School	Students will have the opportunity to learn the basic principles, elements, history, techniques and teaching methodologies of the fine arts and apply the knowledge to appropriate strategies for classroom instruction. Lec 3, Cr 3.	Academic
NURS 3207	Nursing in the Community	Overview of the delivery of nursing care in a community-based setting, application of systematic problem-solving process and critical thinking skills. Cr 2 (Credit-by-Escrow).	Academic
NURS 3303	Nursing of the Family in Psychosocial Crisis	This course is a broad spectrum of psychological phenomena. The content of this course includes psychosocial assessment and intervention strategies. Emphasis is placed on the integration of the teaching process, pharmacology, and nurse- and -client therapeutic relationship within the nursing process framework. Topics included in this course are affective disorder, stress, adaptation, personality disorder, psychoses and anxiety. Cr 3 (Credit-by-Escrow).	Academic
NURS 3308	Health Assessment in Nursing Practice	Development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. Cr 3 (Credit-by-Escrow).	Academic
NURS 3309	Pharmacology and Client Care	Introduction to the science of pharmacology. Emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification as it applies to body systems through the lifespan. Cr 3 (Credit-by-Escrow).	Academic
NURS 3604	Clinical Skills in Nursing	The focus of this course is on the clinical nursing skills associated with the delivery of competent nursing care to clients/patients with varied alternations of their health status. Cr 6 (Credit-by-Escrow).	Academic
NURS 3701	Nursing of the Adult Client with Alterations in Homeostasis	This course focuses on the nursing care of the adult client in a variety of settings and at various stages of the health-illness continuum. Pharmacology, nutrition, comfort, rest, inflammatory and infection, immunity, surgical intervention, oxygenation, circulation, elimination integument cellular growth and thermal regulation are included in this course. Cr 7.	Academic
NURS 3702	Nursing of the Childbearing and Childrearing Families	This course focuses on nursing care associated with Childbearing and Childrearing. Topics are centered in the antepartal, postartal, and neonatal periods. Nursing care of children of all ages and various stages of the health-illness continuum is examined. Cr 7 (Credit-by-Escrow).	Academic
NURS 3705	Advanced Concepts of Clinical Decision Making	Application of advanced concepts and skills for development of the professional nurse's roles in complex client/nursing situations. Cr 7(Credit-by-Escrow).	Academic
NURS 4217	Issues in Professional Nursing	This course examines contemporary issues and trends affecting professional nurses and the profession, including changes in social and cultural societal attitudes. Students analyze relevant nursing topics including nursing's role as client advocate. Foundations for study are philosophy and theory of holism as the basis for ethical nursing practice. Lec 2, Cr 2.	Academic

NURS 4305	Perspectives in Professional Nursing Practice	This course examines the components of a holistic bio-psychosocial spiritual model of nursing practice with a changing and diverse healthcare environment. Lec 3, Cr 3.	Academic
NURS 4307	Transcultural Nursing	This course focuses on theoretical foundations for understanding cultural diversity in health and illness beliefs and behaviors and practical implications of this understanding. The student will gain experience in gaining knowledge and skills in gathering culturally relevant data to assist in the holistic assessment of patients from a variety of cultural backgrounds. Lec 3, Cr 3.	Academic
NURS 4309	Research and Evidence Based Nursing Practice	This course introduces students to research processes, emphasizing databased utilization, current research, systematic reviews, and evidence based clinical standards/guidelines within the caring and holistic nursing framework. Students create research proposals designed to improve patient outcomes using best practices, professional standards, and safety guidelines established for individuals, family, communities, and colleagues. Lec 3, Cr 3.	Academic
NURS 4311	Contemporary Issues in Professional Nursing	This course examines contemporary issues and trends affecting the professional nurse and the profession, including the change in the social and cultural attitudes of society. A major focus is an in-depth analysis of topics relevant to nursing today and in the future. The role nurse as the client's advocate is studied. A foundation of this course is the philosophy and theory of holism as a basic for ethical practice. Lec 3, Cr 3	Academic
NURS 4313	Transcultural Nursing		Academic
NURS 4336	Special Topics	This course focuses on a current health care issue. Topics vary from semester to semester and are offered on a rotating basis. Different topics may be repeated for credit. Lec 3, Cr 3.	Academic
NURS 4406	Health Promotion in Professional Nursing	This course examines health-promotion using the Healthy People 2010 framework. The course explores holistic nursing in health-promotion. Students learn about health-promotion of culturally diverse populations with holistic communication, assessment, and identification of strategies to promote health of individuals/populations. Concepts included are wellness, illness, healing, population-based nursing, and lifestyle modification. Lec 4, Cr 4	Academic
NURS 4407	Foundations of Holistic Nursing	This course provides a foundation for holistic nursing practice with an emphasis on the core values of holistic nursing, self-care, caring-healing interventions, and nurses as instruments of healing. Nursing theory, research, evidence based practice, ethics, philosophy, and the holistic caring process are introduced from a holistic perspective. Lec 4, Cr 4	Academic
NURS 4409	Foundations of Holistic Nursing	This course provides a foundation for holistic nursing practice with an emphasis on the biopsycho-social-spiritual-theory, caring-healing interventions, nurturing the nurturer, and the nurse as an instrument of healing. Nursing theory, research, ethics, philosophy, and the holistic caring process are introduced from a holistic perspective. This course allows for four (4) semesters hours of credit. Lec 4, Cr 4	Academic
NURS 4519	Nursing Leadership	This course emphasizes theoretical and experiential approaches to professional nursing leadership in health-care systems. Students implement evidence based projects based on current theories of leadership, management, and change. Topic include transformational leadership, reflective practice, collaboration communication, succession planning, delegation, resource management, cost effective strategies, quality improvement, and accountability. Lec 5, Cr 5.	Academic
NURS 4610	Professional Nursing in the Community	This course views the community as a major determinant of the health status of its individual members. This course emphasizes role of the professional nurse in the community, aggregate health issues, the epidemiology process and the holistic caring process as it applies to families, aggregates and communities. Lec 3, Clinical 6, Cr 6.	Academic
NURS 4611	Health Promotion in Professional Nursing	This course examines health promotion with Healthy People as a framework and emphasis on holistic nursing core values, communication, assessment, wellness, illness, healing, population-based nursing, lifestyle modification, and health promotion strategies for culturally diverse individuals, families, and populations throughout the lifespan from infancy to older adults. Lec 6, Cr 6.	Academic
NURS 4612	Leadership in Professional Nursing	This course emphasizes a theoretical and experimental approach to identifying the role of the professional nurse in the health-care system. Current theories of leadership, management, and change are related to the practice of professional nursing. Lec 6, Cr 6	Academic

NURS 4615	Professional Nursing in the Community	Theories related to nursing and public health science are presented within the framework of critical-thinking and caring. Students analyze interrelationships between populations and communities with emphasis on health, illness epidemiology, health promotion, risk reduction, research utilization, and evidence-based practice. Students explore resources and collaborative efforts for providing competent, holistic care to diverse population from regional, national and global perspectives. Lec 3, Clinical 6, Cr 6.	Academic
PFPB 1306	Blueprint Reading for Plumbers	Introduction to reading and interpreting working drawings. Includes symbols and abbreviation and the use of sketching techniques to create isometric drawings and multiview drawings of drain, waste, vent, hot and cold water, natural gas piping components. Lec 2, Lab 3, Cr 3.	Technical
PFPB 1321	Plumbing Maintenance and Repair	Instruction in the practices and procedures employed by a plumber in the usual and unusual service work in the field of residential plumbing repairs including relations. Lec 2, Lab 3, Cr 3.	Technical
PFPB 1345	Com Const and Fixture Setting	This course instructs students in the use of practices and procedures employed by a plumber in the common construction of a commercial building including multi-level drain waste vent systems, water systems, and fixture installation. The student will install the drain water vent, potable water and gas systems common to multi-floor buildings and set and install various types of typical plumbing fixtures. Lec 1, Lab 6, Cr 3	Technical
PFPB 1452	Blueprint Reading Plumbers	This course covers blueprint reading, sketching, layout/ design, isometric drawings, and material take-off sheets of residential and light commercial plumbing systems. Lec 3, Lab 4, Cr 4.	Technical
PFPB 2307	Pipe Fabrication and Installation I	Pipe fabrication procedures of threaded, socketweld, and buttweld pipe joints. Pipe and tube bending with hand benders, saddling in/on pipe braces to pipe headers, and fabrication and installation of pipe supports. Lec 2, Lab 4, Cr 3.	Technical
PFPB 2308	Piping Standards and Materials	Identification, description, and application of piping standards and specifications. Includes identification and use of various metallic and non-metallic piping materials, identification and installation of valves, and material take-offs. Lec 2, Lab 3, Cr 3.	Technical
PFPB 2309	Residential Construction Plumbing I	Skill development in the procedures and techniques employed by a plumber in the rough-in and top-out stages of a new home or the remodeling of an older home. Lec 2, Lab 3, Cr 3.	Technical
PFPB 2336	Commercial Construction and Fixture Setting	Practices and procedures employed by a plumber in the common construction of a commercial building multilevel drain waste vent systems, water systems, and fixture installations. Lec 2, Lab 4, Cr 3.	Technical
PHIL 1301	Introduction to Philosophy	Introduction to Philosophy is designed to acquaint students with the range of topics within philosophy and to provide them with general notions of the history of ideas. More specifically, the course will stress critical thinking as the foundation for all philosophical analysis. Topics include epistemology, metaphysics, ethics, and logic. Lec 3, Cr 3	Academic
PHIL 2303	Introduction to Logic/Critical Thinking	The course concentrates on syllogistic logic to help the students better understand and critically evaluate arguments. Lec 3, Cr 3.	Academic
PHIL 2306	Introduction to Ethics	Analysis of basic principles and methods of evaluating human behavior, including critical examination of both classical and contemporary ethical theories, with emphasis upon their application to personal decision making and contemporary moral issues. Lec 3, Cr 3	Academic
PHIL 3304	Introduction to World Religions	This course introduces the student in a non-sectarian way to the basic principles of many of the world religions: Christianity, Judaism, Islam, Buddhism, Hinduism, and new religious movements and spiritualities. Lec 3, Cr 3.	Academic
PHIL 4301	Special Topics in Philosophy	This course is an in-depth study of significant philosophical topics or the views of selected philosophers. It may be repeated two times for credit (maximal 6 credit hours) if the topic varies. Lec 3, Cr 3.	Academic
PHYS 1101	General Physics I Lab	Laboratory experiments in classical mechanics, heat, and wave motion. Lab 3, Cr 1	Academic
PHYS 1102	General Physics Laboratory II	Laboratory experiments in electricity, magnetism, light, and modern physics. Lab 3, Cr 1.	Academic
PHYS 1105	Elementary Physics and Acoustics Laboratory	The following lab topics will be treated: nature of vibrations, relation to music, sound waves and characteristics, vibratory sources of sounds used in music, stretched strings, air columns, percussive instruments and voice, noise, musical scales, electronic recording, and synthesis of sound. Lab 3, Cr 1	Academic

PHYS 1110	Conceptual Physics Laboratory	Laboratory experiments in mechanics, heat, electricity and magnetism designed for non-science majors and students in the technology programs. Lab 3, Cr 1.	Academic
PHYS 1111	Introduction to Astronomy Laboratory	Laboratory experiments in introductory astronomy based on observations of stars, planets, and galaxies. Lab 3, Cr 1	Academic
PHYS 1115	21st Century Energy Issues: Physical Science I Laboratory	Laboratory to accompany and support PHYS 1315. Activities include measuring solar and wind resources, generating mechanical, electrical and thermal energy and field trips. Lab 3, Cr 1.	Academic
PHYS 1301	General Physics I	Fundamentals of classical mechanics, heat and thermodynamics, vibratory motion, waves and sound. Lec 3, Cr 3	Academic
PHYS 1302	General Physics II	Fundamentals of electricity, magnetism, electromagnetic interaction, light, and modern physics. Lec 3, Cr 3	Academic
PHYS 1305	Elementary Physics and Acoustics	The following topics will be treated: nature of vibrations, relation to music, sound waves and characteristics, vibratory sources of sounds used in music, stretched strings, air columns, percussive instruments and voice, noise, musical scales, electronic recording, and synthesis of sound. Lec 3, Cr 3.	Academic
PHYS 1310	Conceptual Physics	A course designed primarily for non-science majors and students in the technology programs to explain the basic concepts of matter, mechanics, heat, electricity and magnetism with emphasis on applications and problem solving, and to illustrate the philosophy and methods of science. Lec 3, Cr 3.	Academic
PHYS 1311	Introduction to Astronomy	This course is designed as an introductions to the study of Astronomy. Topics included are the formation of the planetary system, birth, and death of stars. Black holes, neutron stars and supernovas, and the current status of research in astronomy are also presented. Lec 3, Cr 3	Academic
PHYS 1315	21st Century Energy Issues: Physical Science I	A survey of topics from physics, chemistry, astronomy, meteorology, and geology that affect the energy revolution that will shape the geopolitical events of the 21st century. Concepts of energy are explored. Energy source alternatives are presented and studied, including fuel cell, hybrid cars, solar power, wind energy. Lec 3, Cr 3.	Academic
PHYS 1415	21st Century Energy Issues: Physical Science I	A survey of topics from physical sciences and how they relate to 21st century energy issues, including global warning, alternatives fueled vehicles, solar, wind, hydro, and fossil fuel sources of electrical energy economics. Laboratory topics will include measuring solar and wind resources, generating electricity and field trips. Lec 3, Lab 3, Cr 4.	Academic
PHYS 2125	University Physics I Laboratory	Laboratory experiments in classical mechanics, including kinematics, dynamics statics, fluids, oscillation, and waves. Lab 3, Cr 1	Academic
PHYS 2126	University Physics II Laboratory	Laboratory experiments in thermodynamics, electricity and magnetism, light, and optics. Lab 3, Cr 1	Academic
PHYS 2325	University Physics I	This course is the first of a two-semester sequence of course for physics, engineering physics, and computer science majors. The topics addressed will be an introduction to classical mechanics including statics, fluids, oscillation, and waves. Lec 3, Cr 3.	Academic
PHYS 2326	University Physics II	This is the second course in the two-semester introductory sequence for physics, engineering physics, and computer science majors. The topics addressed will be an introduction to thermodynamics, electricity and magnetism, light, and optics. Lec 3, Cr 3	Academic
PHYS 3201	Advanced Physics Laboratory I	A course in experimental physics designed to give the student experience with real world apparatus such as lasers, high field magnets, detectors, radioactive sources, vacuum equipment, and sophisticated electronic devices such as lock-in amplifiers and multichannel scalars. The course also emphasizes writing of reports in the formats of the ATP Style Manual. Lab 6, Cr 2.	Academic
PHYS 3310	Classical Mechanics	This course introduces a rigorous treatment of particle kinematics and dynamics. Topics may include systems of particles and conservation laws, rigid body motion, Lagrangian mechanics, small oscillations and coupled oscillators. Lec 3, Cr 3.	Academic
PHYS 3315	Physics of Biological Systems	This course will teach students how to apply the basics principles of physics to the problems of Life Sciences. Lec 3, Cr 3.	Academic
PHYS 3320	Thermodynamics	This course develops the methods of classical and statistical thermodynamics. Topics treated may include the principles of classical thermodynamics, canonical and grand canonical ensembles, partition functions, classical ideal gases as well as Fermi and Bose gases, and an introduction to simple interacting systems. Lec 3, Cr 3.	Academic

PHYS 3400	Modern Physics	This course introduces concepts of modern physics, including special relativity, the foundations of quantum theory and its application to atomic and molecular structures. Atomic nuclear reactions and an introduction to elementary particles may also be covered. Lec 3, Lab 3, Cr 4.	Academic
PHYS 3490	Mathematics for Scientists and Engineers I	This course studies the application of various mathematical techniques to advanced problems in physics. Topics may include functions of a complex variable, the calculus of residues, integral transformations, the special functions of mathematical physics and partial differential equations with special applications to the heat equation and Schr^dinger's equation. Lec 3, Lab 3, Cr 4.	Academic
PHYS 3492	Mathematics for Scientists and Engineers II	This course is the second of a two semester course that introduces the student to mathematical techniques used in the physical sciences. Topics covered in the second semester include Fourier series, ordinary differential equations, partial differential equations, complex analysis, and integral transforms. Lec 3, Lab 3, Cr 4.	Academic
PHYS 4300	Undergraduate Research Project	A special laboratory research project, to be carried out under the direction of a faculty member, resulting in a written report. Lec 1, Lab 9, Cr 3.	Academic
PHYS 4315	Analysis of Biomolecules by Physical Methods	The course is designed for students in Bachelors of Science in Engineering Physics/ Bioengineering Program and provides basic information on physical methods currently used in bioengineering and biomedical research study physical properties of vitally important macromolecules. Lec 3, Cr 3	Academic
PHYS 4320	Quantum Mechanics	This course introduces the Schr^dinger equation and several solutions in three dimensions. Applications to the harmonic oscillator and the hydrogen atom are presented. Lec 3, Cr 3.	Academic
PHYS 4321	Advanced Quantum Mechanics	The course introduces perturbation theory and other approximation techniques for solving the Schrodinger equation. Topics may include two-level systems, scattering and Bell's theorem. Lec 3, Cr 3.	Academic
PHYS 4330	Electromagnetic Theory	This course covers electrostatics, magnetostatics, and electrodynamics with applications toward electromagnetic waves and wave guides. Lec 3, Cr 3.	Academic
PHYS 4340	Solid State Physics	This course introduces the physics of solids. Topics to be covered may include the structural, thermal, electric, and magnetic properties of crystalline solids and free electron theory of metals, and application of energy bands and elementary semiconductor physics. Lec 3, Cr 3.	Academic
PHYS 4360	Stellar Astrophysics	The course covers the introduction to astrophysical processes governing the structure and evolution of stars. The physics of white dwarfs, neutron stars, and black holes will also be discussed. Lec 3, Cr 3.	Academic
PHYS 4380	Special Topics in Physics	Special topics in physics, arranged for individuals or small groups. May be repeated for credit up to a maximum of six hours. Lec 3, Cr 3.	Academic
PHYS 4390	Computational Methods for Engineers and Physicists	This is an introduction to the techniques and use of computers to solve engineering and physical problems. The topics covered include the study of finite difference methods, the implementation of linear algebra problems to solve systems of equations, and the use of Monte Carlo methods, spectrum analysis and techniques of scientific visualization will be covered. Lec 3, Cr 3	Academic
PLAB 1166	Phlebotomy	This course is a practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Practicum 7, Cr 1.	Technical
PLAB 1223	Phlebotomy	Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skiing puncture, butterfly needles and blood culture, and specimen collection on adults, children and infants. Emphasis on infection prevention, proper patient identification, labeling of specimen and quality assurance, specimen handling, processing, and accession in. Topics include professionalism, ethics, and medical terminology. Lec 5, Cr 2.	Technical
PLAB 1323	Phlebotomy	This course will develop the skills of blood collection methods and standard precautions. Includes vacuum devices, syringes, capillary skin puncture, butterfly and blood culture, and specimen collection on adults, children and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality-assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology. Lec 2, Lab 4, Cr 3.	Technical
POFI 1349	Spreadsheets	This intermediate course provides students with skills in solving business application using spreadsheet software. Lec 3, Lab 1, Cr 3.	Technical
POFI 2301	Word Processing	Word processing software focusing on business applications. Lec 3, Lab 1, Cr 3.	Technical

POFI 2331	Desktop Publishing	This course offers 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. Lec 3, Lab 1, Cr 3.	Technical
POFI 2431	Desktop Publishing for Office	In-depth coverage of desktop publishing terminology editing, and use of design principles to create publishing material using word processing desktop features. Emphasis on layout techniques, graphics, and multiple page displays. Lec 3, Lab 2, Cr 4.	Technical
POFL 1305	Legal Terminology	This course will instruct students in the correct spelling, pronunciation, and definition of legal terms. It includes an overview of the areas of law and legal professions. The students develop a legal vocabulary and explain fundamental legal concepts, procedures, and terminology. Lec 3, Cr 3.	Technical
POFM 1300	Medical Coding Basics	This course covers the presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems. Lec 3, Cr 3.	Technical
POFM 1309	Medical Office Procedures	This course provides an introduction to basic medical office skills including telephone techniques, filling and indexing, mail handling, appointment scheduling, travel arrangements, and correspondence, and business transactions. Emphasis is placed on human relations and customer service skills. Lec 3 , Cr 3.	Technical
POFM 2310	Intermediate Medical Coding	This course covers the assignment and application of ICD, CPT, and HCPCS coding guidelines with emphasis on physician billing and regulatory requirements. Includes code selection for evaluation and Management (E/M)and Medical/ Surgical cases. Lec 3, Cr 3.	Technical
POFM 2380	Coop Education- Medical Admin/ Executive Assistance and Medical Secretary	This course offers 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. Lec 1, Lab 20, Cr 3.	Technical
POFT 1192	Special Topics: Portfolio	This course includes topic addressing recently identified current events, skills, knowledges, 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. Lec 1, Cr 1.	Technical
POFT 1301	Business English	This course will provide students with an introduction to practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. Lec 3, Cr 3.	Technical
POFT 1309	Administrative Office Procedures I	This course covers the study of current office procedures including telephone skills, time management, travel and meeting arrangements, mail processing, and other duties and responsibilities in an office environment. The student will develop time management techniques! manage in-coming and out-going mail! demonstrate appropriate telephone techniques! coordinate travel and meeting arrangements! and identify the basic skills of an office professional. Lec 3, Cr 3.	Technical
POFT 1313	Professional Workforce	This course covers preparation for the work force including business ethics, team work, professional attire, and career advancement. The student will determine necessary skills for seeking and securing employment, apply problem-solving techniques to complete tasks, identify attitudes and values that contribute to effective work habits, demonstrate how to work effectively as part of a team, exhibit business etiquette, and identify professional attire. Lec 3, Cr 3.	Technical
POFT 1319	Records and Information Management I	This course provides an 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 filling. Lec 3, Cr 3.	Technical
POFT 1325	Business Math and Machine Applications	Skill development in the use of electronic calculators and business math functions. Emphasis on business problem-solving skills using spreadsheets software and/or electronic calculator/ keyboard. Lec 3, Cr 3.	Technical

POFT 1329	Beginning Keyboarding	This course will provide skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis is placed on development of acceptable speed and accuracy levels and formatting basic documents. Lec 3, Cr 3.	Technical
POFT 2331	Administrative Systems	This capstone course focuses on the advanced concepts of project management and office procedures utilizing integration of previously learned software skills. Lec 3, Cr 3.	Technical
POFT 2380	Cooperative Education-Administrative Assistant/Secretary Science	This course offers 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. Lec 1, Lab 20, Cr 3.	Technical
POFT 2381	Cooperative Education-Administrative Assistant/Secretary Science	This course offers 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 lecture components. Lec 1, Lab 20, Cr 3.	Technical
PSCI 4210	Physical Sciences for Educators I	This is the first part of hands on physical science course designed for education majors in EC-8 programs. The course will provide the students with basic theoretical background in physical science (properties of matter, mechanics, waves), and will develop skills in physical experimentation. Lec 3, Cr 2.	Academic
PSCI 4220	Physical Science for Educators II	This is one of two parts of a hands-on physical science course designed for education majors in EC-8 programs. The course will provide the students with basic theoretical and experimental background in electricity, magnetism, and electronics. Lec 3, Cr 2.	Academic
PSYC 2301	Introduction to Psychology	A survey of the scope and methods of psychology! cultivation of a scientific attitude toward behavior. Lec 3, Cr 3.	Academic
PSYC 2308	Child Psychology	This course investigates the physical, behavioral, mental, emotional and social changes that accompany growth and development during infancy and childhood. Lec 3, Cr 3.	Academic
PSYC 2314	Lifespan Development	The study of the biological, cognitive and psychosocial changes in development of the individual from conception through maturity to death. Lec 3, Cr 3.	Academic
PSYC 2317	Statistics Methods in Psychology	This course covers measures of central tendency and variability, statistical inference and correlation. Lec 3, Cr 3.	Academic
PSYC 3301	Research Methods in Psychology	Quantitative research methods and techniques used in contemporary psychological research, instruction in the steps involved in the scientific approach to solving problems and in applying the experimental method in the laboratory. Lec 3, Cr 3.	Academic
PSYC 3302	Adolescent Psychology	This course investigates the physical, behavioral, mental, emotional and social changes that accompany growth and development in adolescence. Lec 3, Cr 3.	Academic
PSYC 3303	Adulthood and Aging	This course investigates the physical, behavioral, mental, emotional and social changes that accompany growth and development during the adult years from maturity to old age. Lec 3, Cr 3.	Academic
PSYC 3312	Psychology of Gender	This course asks how biological and cultural factors influence the development of gender roles and identities and stereotypes of masculinity and femininity and how these affect our lives at the personal, social, and institutional levels. Lec 3, Cr 3.	Academic
PSYC 3313	Abnormal Psychology	This course explores the origins, categories and treatments of mental, emotional and behavioral disorders ranging from relatively mild stress and anxiety disorders to the more severe schizophrenias and organic mental disorders. Lec 3, Cr 3.	Academic
PSYC 3318	Theories Learning	This course is the study of how behavior of an individual undergoes enduring changes as a result of exposure to events in the environment. The main focus is on classical operant, and observational learning. Lec 3, Cr 3.	Academic
PSYC 3322	Biopsychology	In this course, psychology will be approached from the perspective of the human being as a living organism and as part of the biological world. Emphasis will be on how the nervous system, especially the brain, is related to various aspects of behaviors and experiences. Lec 3, Cr 3	Academic
PSYC 3324	Health Psychology	This is a relatively new field of psychology that studies mental, emotional and behavioral factors that affect the onset, duration, recovery and prevention of physical illnesses. Lec 3, Cr 3.	Academic

PSYC 3326	Social Psychology	This course examines how an individual's behaviors and thinking influences and is influenced by the presence of others. Topics include attribution, conformity, persuasion, attitude structure and change, leadership, and prejudice and discrimination. Lec 3, Cr 3.	Academic
PSYC 3333	Theories of Personality	This is an examination of some of the major theories of how we acquire the distinctive behavioral, mental, and emotional characteristics which make us unique individuals. Lec 3, Cr 3.	Academic
PSYC 3343	Tests and Measurements in Psychology	This course looks at theoretical issues and practical problems involved in designing and administering tests and measures such as questionnaires, surveys, aptitude, and achievement tests, personnel selection, and personality inventories. Lec 3, Cr 3.	Academic
PSYC 3363	Human Sexuality	This course explores the multidimensional nature of human sexuality including the physiological, psychological, and sociological aspects of human sexuality. Lec 3, Cr 3.	Academic
PSYC 4302	Advanced Statistics for Psychology	This course reviews and expands on basic principle of statistical analysis with an emphasis on inferential techniques such as analysis of variance and integrated with the use of prepackaged statistical analysis programs such as SPSS. Lec 3, Cr 3.	Academic
PSYC 4305	Behavior Management and Modification	This course explores the application of various techniques derived from learning theories for the treatment of a wide variety of behavioral and emotional problems in clinical settings! decreasing the frequency of undesirable behaviors and increasing the frequency of desirable behaviors in non-clinical settings. Lec 3, Cr 3.	Academic
PSYC 4306	Conflict Resolution	An investigation of the nature of conflict and the methods to resolve conflict with an emphasis on collaborative problem solving and mediation. Lec 3, Cr 3	Academic
PSYC 4319	Cognitive Processes	This course examines mental activities from an information processing perspective. Topics include perception, pattern recognition, attention, memory, decision making, and problem solving. Lec 3, Cr 3	Academic
PSYC 4322	Sensation and Perception	This course looks at how the sensory nervous system monitors the internal and external environments and how the central nervous system organizes, evaluates and acts on incoming sensory information. Lec 3, Cr 3.	Academic
PSYC 4324	Health Psychology	This is a relatively new field of psychology that studies mental, emotional and behavioral factors that affect the onset, duration, recovery and prevention of physical illnesses. Lec 3, Cr 3.	Academic
PSYC 4330	Psychology and the Legal Systems	This course provides an interdisciplinary introduction to the field of Forensic Psychology, including basic concepts of the American legal process in civil and criminal cases and application of the science of Psychology in the legal system for the development and implementation of law and policy. Lec 3, Cr 3.	Academic
PSYC 4356	Industrial and Organizational Psychology	This course explores psychological and behavioral factors involved with organizational design and effectiveness! leadership, personnel selection, placement, training, promotion retention! morale, job satisfaction and productivity. Lec 3, Cr 3.	Academic
PSYC 4360	Clinical and Counseling Psychology	This course introduces the methods of applying psychological principles to the diagnosis and treatment of emotional and behavioral problems and providing help with problems of social adjustment and vocational and educational goals. Lec 3, Cr 3.	Academic
PSYC 4363	Systems and Theories in Psychology	This course chronicles the development of psychological thought from the ancient Greeks into modern era in terms of the most influential people and the ideas and theories that they have proposed. This is a capstone course required of psychology majors. Lec 3, Cr 3	Academic
PSYC 4374	Topics in Psychology	This course is designed to address contemporary developments in psychology. The topics may vary and the course may be repeated twice for credit. Lec 3, Cr 3.	Academic
PSYC 4380	Independent Study	This course allows students to arrange a personalized study schedule on a topic of their interest. The topic may be one which is not covered in the above courses or one which goes into more depth than is usually the case. Lec 3, Cr 3.	Academic
PSYCU 2102	Orientation for Psychology Majors	This course prepares students for success and services within the psychology major. Topics include: research, ethics, APA style, critical thinking, study skills, civic engagement and professional development. This course is required of all majors. Lec 1, Cr 1.	Academic

RADR 1166	Practicum I - Medical Radiologic Technology	Practical 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 technical course of study. This course may be repeated if topics and learning outcomes vary. Lab 21, Cr 1.	Technical
RADR 1167	Practicum II - Medical Radiologic Technology	Practical general training and experiences in the workplace. The college with the employer develops and documents individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Lab 21, Cr 1.	Technical
RADR 1201	Introduction to Radiography	This course includes the historical development of radiography, basic radiation protection, an introduction to medical terminology, ethical and legal issues for care professionals, and an orientation to the program and the health care system. Lec 2, Cr 2.	Technical
RADR 1213	Principles Radiography Imagines I	This course will analyze radiographic image qualities and the effects of exposure variables upon these qualities. Lec 1, Lab 2, Cr 2.	Technical
RADR 1267	Practicum-Medical Radiologic Technician	Practical general training and experience 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. This course may be repeated if topics and learning outcomes vary. Lab 20, Cr 2.	Technical
RADR 1411	Basic Radiographic Procedures	This course includes 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 and related pathology. Lec 3, Lab 3, Cr 4.	Technical
RADR 2166	Practicum V - Medical Radiologic Technologic	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 student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Lab 21, Cr 1.	Technical
RADR 2167	Practicum IV - Medical Radiologic Technologic	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. This course may be repeated if topics and learning outcomes vary. Lab 21, Cr 1.	Technical
RADR 2217	Radiographic Pathology	An overview of the disease process and common diseases and their appearance on medical images. Lec 2, Cr 2.	Technical
RADR 2233	Advanced Medical Imaging	An introduction to the use of computers in medical imaging and survey of specialized imaging modalities. Lec 2, Cr 2.	Technical
RADR 2266	Practicum IV - Medical Radiologic Tech	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 student's general and technical course of study. This course may be repeated if topics and learning outcomes vary. Lab 20, Cr 2.	Technical
RADR 2267	Practicum VII- Medical Radiologic Tech	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. This course may be repeated if topics and learning outcomes vary. Lab 20, Cr 2.	Technical
RADR 2305	Principles Radiographic Imaging II	A continuation of the study of radiographic imagining technique formulation, image quality assurance, and the synthesis of all variables in image production. Lec 2, Lab 3, Cr 3	Technical
RADR 2309	Radiographic Imaging Equipment	A study of the equipment and physics of x-ray production, basic x-ray circuits, and relate equipment components to the imaging process. Lec 3, Lab 1, Cr 3.	Technical
RADR 2313	Radiation Biology and Protection	A study of effects of radiation exposure on biological system, typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Lec 3, Cr 3.	Technical
RADR 2331	Advanced Radiographic Procedures	An advance course including the proper manipulation of equipment positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of advanced anatomy and related pathology. Lec 3, Cr 3.	Technical

RADR 2335	Radiologic Technology Seminar	This is a capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning. Lec 3, Cr 3.	Technical
RBPT 2320	Residential Energy Conservation Codes	This course covers the use of computer software and code documents to determine compliance with residential energy conservation codes through the gathering of data from building plans and manufactures' specifications. Lec 2, Lab 2, Cr 3.	Technical
RBPT 2345	Onsite Power Generation and Renewable Energy	Study in the application of residential onsite power generation with an emphasis on renewable energy, this course include systems that produce electrical energy and thermal energy, as well as determination of residential energy loads and their comparison to onsite power generation and an exploration of off-grid, on-grid, net-zero, and distributed applications. Lec 2, Lab 3, Cr 3.	Technical
RBTC 1405	Robotic Fundamentals	An introduction to flexible automation, topics include installation, repair, maintenance, and development of flexible robotic manufacturing systems. Lec 3, Lab 3, Cr 4.	Technical
RBTC 1451	Robotic Mechanisms	The application of principles and the calculation of practical problems involving four bar linkages, cams, gears, and gear trains are examined. Topics include vector quantities, angular displacement, motion concepts, velocities, and motions. Lec 3, Lab 3, Cr 3.	Technical
READ 0320	College Reading I	The primary purpose of this reading course is to improve basic reading and comprehensive skills through a combination of classroom-based and computer-assisted instruction. Primary emphasis will be in the areas of vocabulary and comprehension development, which will be enhanced through the use of selected literary material. Lec 3, Cr 3.	Academic
READ 0321	College Reading II	This course is an intermediate college reading course that emphasizes instruction and practice of vocabulary and comprehension skills essential for college level reading. Lec 3, Cr 3.	Academic
READ 0322	College Reading III	This course is an advanced college reading course emphasizing the instruction and application of study skills and critical reading across various disciplines. This exit-level course is designed to prepare students for reading intensive college level courses. Lec 3, Cr 3.	Academic
RNSG 1108	Dosage Calculation for Nursing	This course offers reading, interpreting, and solving calculation problems encountered in the preparation of medications. Includes conversion of measurements within the apothecary, avoirdupois, and metric system. This course lends itself to either a blocked or integrated approach. Lab 4, Cr 1.	Technical
RNSG 1110	Introduction to Community Based-Nursing	This course offers an overview of the delivery of nursing care in a variety of community-based settings! application of systematic problem-solving processes and critical thinking skills, focusing on the examination of concepts and theories relevant to community-based nursing! and development of judgment, skills, and professional values within legal/ethical framework. This course lends itself to either a blocked or integrated approach. Lec 1, Cr 1.	Technical
RNSG 1160	Foundations Nursing Practice	This course offers a health-related work-based learning experience that enables the students to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical 3, Cr 1.	Technical
RNSG 1201	Pharmacology	This course offers an introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications with a legal/ethical framework. This course leads itself to either a blocked or integrated approach. Lec 2, Cr 3.	Technical
RNSG 1205	Nursing Skills	This course offers a study of the 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. Lab 5, Cr 2.	Technical
RNSG 1215	Health Assessment	This course offers development of skills and techniques required for a comprehensive health assessment within a legal/ethical framework. This course lends itself to a blocked approach. Lec 1, Lab 3, Cr 2.	Technical
RNSG 1251	Care of Childbearing Family	This course offers study of concepts related to the provision of nursing care of childbearing families. Topics may include selected complications. Topics include knowledge judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Lec 2, Cr 2.	Technical

RNSG 1260	Clinical: Nursing RN: Introduction to Nursing	This course offers a health-related work-based learning experience that enables the students to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical 8, Cr 2.	Technical
RNSG 1261	Clinical :nursing R.N: Principles of Clinical Decision Making	This course offers 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. Clinical 6, Cr 2.	Technical
RNSG 1262	Clinical Nursing R.N: Concepts of Clinical Decision Making	This course offers 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. Clinical 6, Cr 2.	Technical
RNSG 1301	Pharmacology	This course offers an introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. This course lends itself to either a blocked or integrated approach. Lec 3, Cr 3.	Technical
RNSG 1327	Transition From Vocational to Professional Nursing	This course includes 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. This course lends itself to either a blocked or integrated approach. Lec 3, Cr 3.	Technical
RNSG 1331	Principles of Clinical Decision-Making	This course offers an examination of selected principles related to the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision-making for clients in medical-surgical setting experiencing health problems involving fluid and electrolytes! preoperative care! pain! respiratory disorders! peripheral vascular disorder! immunologic disorder! and infectious disorders. Discussion of knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to either a blocked or integrated approach. Lec 3, Cr 3.	Technical
RNSG 1347	Concepts of Clinical Decision-Making	This course offers an integration of previous knowledge and skills into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision-making for clients in medical-surgical settings experiencing health problems involving gastrointestinal disorders, endocrine and metabolic disorders, reproductive and sexual disorders, musculoskeletal disorders, eye-ear-throat disorders, and integumentary disorders. Discussion of knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Lec 3, Cr 3.	Technical
RNSG 1413	Foundations for Nursing Practice	This course offers an introduction to the role of the professional nurse as provider of care, coordinator of care and member of a profession. Topics include but are not limited to the fundamental concepts of nursing practice, history 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 leads itself to a blocked approach. Lec 3, Lab 3, Cr 4.	Technical
RNSG 2121	Management of Client Care	This course offers exploration of leadership and management principles applicable to the role of the nurse as provider of care, coordinator of care, and member of the profession as they apply to the management of care for all types of clients (i.e. neonatal, pediatrics, obstetric, psychiatric and medical-surgical). It includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. (Course is 10 weeks.) Lec 1, Cr 1.	Technical
RNSG 2160	Clinical Nursing R.N: Mental Health Nursing	This course offers 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. Clinical 3, Cr 1.	Technical
RNSG 2161	Clinical: RN: Care of Childbearing Family	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. Clinical 6, Cr 1.	Technical

RNSG 2162	Clinical:RN: Care of Child and Families	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. Clinical 6, Cr 1.	Technical
RNSG 2163	Clinical: RN: Mental Health Nursing	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. Clinical 6, Cr 1.	Technical
RNSG 2166	Practicum	Practical, general workplace training supported by an individual learning plan developed by the employer, college, and student. Clinical 8, Cr 1.	Technical
RNSG 2201	Care of Children and Families	This course offers a study of concepts related to the provision of nursing care for children and families emphasizing judgment, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Lec 2, Cr 2.	Technical
RNSG 2207	Transition to Nursing Practice	This course offers an introduction to selected concepts related to the role of the professional nurse as provider of care, coordinator of care, and member of the profession. Reviews trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Lec 2, Cr 2.	Technical
RNSG 2208	Maternal/ Newborn Nursing and Women's He		Technical
RNSG 2213	Mental Health Nursing	This course offers principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of client and their families. This course leads itself to a blocked approach. Lec 2, Cr 2.	Technical
RNSG 2260	Clinical: Nursing RN: Transitional from Vocational to Professional Nursing Practice	This course offers 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. Clinical 8, Cr 2.	Technical
RNSG 2261	Clinical: Nursing R.N: Maternal Newborn Nursing and Women's Health	This course offers 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. Clinical 6, Cr 2.	Technical
RNSG 2262	Clinical: Nursing R.N: Care of Children and Family	This course offers 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. Clinical 6, Cr 2.	Technical
RNSG 2263	Clinical: Nursing R.N: Advanced Concepts Of Clinical Decision Making	This course offers 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. Clinical 6, Cr 2.	Technical
RNSG 2341	Advanced Concepts of Clinical Decision-Making	This course offers application of advanced concepts and skills for development of the professional nurse's roles in complex client/nursing situations. Emphasis on clinical decision-making for clients in medical-surgical settings experiencing health problems involving cardiovascular disorders! neurologic disorders! liver, biliary and pancreatic disorders! renal and urinary disorders! hematologic disorders! and cancer. Focus given to knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Lec 3, Cr 3.	Technical
RNSG 2361	Clinical: Nursing R.N.: Preceptor	This course offers 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. Clinical 9, Cr 3.	Technical
ROTC 3201	Basic Army Physical Development	An in-depth study of the Army's physical fitness program. From this curriculum, a student can develop a physical fitness program that best suits one's ability or physical desire. One can learn to perform individual physical assessments. Lec 2, Cr 2.	Academic
ROTC 3202	Advance Army Physical Training	A practicum is physical development where a student applies the physical development skills learned in Basic Army Physical Development and applies them to a program that best suits the individual. Lec 2, Cr 2.	Academic
ROTC 3401	Adaptive Team Leadership	This course challenges cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Lec 3, Lab 1, Cr 4.	Academic

ROTC 3402	Leadership in Changing Environments	This course uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading small units. Skills in decision-making, persuading and motivating team members when under fire are explored, evaluated, and developed. Lec 3, Lab 1, Cr 4.	Academic
ROTC 4401	Developing Adaptive Leaders	This course develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow ROTC cadets. Lec 3, Lab 1, Cr 4.	Academic
ROTC 4403	Leadership in a Complex World	This course explores the dynamics of leading in the complex situations of current military operations in the COE. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Lec 4, Cr 4.	Academic
ROTCU 1201	Leadership and Personal Development	This course introduces cadets to the personal challenges and competencies that are critical for effective leadership. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness, and stress management relate to Army. Lec 2, Lab 1, Cr 2.	Academic
ROTCU 1202	Introduction to Tactical Leadership	This course overviews leadership fundamentals such as setting direction, problem-solving, presenting briefs, providing feedback, and using effective writing skills. Cadets will explore dimensions of leadership values, attributes, and actions in the context of practical, hands-on, and interactive exercises. Lec 2, Lab 1, Cr 2.	Academic
ROTCU 2201	Innovative Team Leadership	Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of leadership values and attributes through an understanding of Army rank, structure, and duties. Lec 2, Lab 1, Cr 2.	Academic
ROTCU 2202	Foundations of Tactical Leadership	This course examines the challenges of leading tactical teams in the COE. The course highlights dimensions of terrain analysis, patrolling, and operation orders. This course provides a smooth transition into ROTC 3401. Lec 2, Lab 1, Cr 2.	Academic
RSPT 1161	Clinical II- Respiratory Care Therapy/ Therapist	This course provides a health-related work-based learning experience that enables the student to apply specializes occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Lab 6, Cr 1.	Technical
RSPT 1260	Clinical I- Respiratory Care Therapy/ Therapist	This course provides 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. Lab 12, Cr 2.	Technical
RSPT 1310	Respiratory Care Procedures I	This course provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are discussed in-depth: oxygen therapy, humidity, and aerosol therapy, hyperinflation therapy, chest physiotherapy, pulse oximetry, arterial puncture, and interpretation. Lec 2, Lab 4, Cr 3.	Technical
RSPT 1311	Respiratory Care Procedures II	This course provides the student with 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. Lec 2, Lab 4, Cr 3.	Technical
RSPT 2133	Respiratory Care Case Management	Preparation and presentation of the case study. Instruction in the investigation, organization, and presentation of the material, including preparation of questions for group discussion. Lec 1, Cr 1.	Technical
RSPT 2135	Pediatric Advanced Life Support	This is a comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the infant and child. It includes strategies for preventing cardiopulmonary arrest and identification of high risk infants and children. May include certification. Lab 3, Cr 1.	Technical
RSPT 2139	Advanced Cardiac Life Support	This is comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of adult. It includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification. Lab 3, Cr 1.	Technical

RSPT 2217	Respiratory Care Pharmacology	This course focuses on the study of pharmacological principles/ practices of drugs which affect the cardiopulmonary systems. Emphasis will be places on classification, route of administration, dosages/calculations, and physiological interactions of cardiopulmonary drugs. Lec 2, Cr 2.	Technical
RSPT 2230	Examination Preparation	Comprehensive review for selected respiratory care credentialing examinations. Test matrices and exam content areas for selected exams will be presented. Lec 2, Cr 2.	Technical
RSPT 2231	Simulations in Respiratory Care	This course is a study of the theory of clinical simulation examinations including the construction type, the scoring, and mechanics of taking the computerized simulation examination. Lec 1, Lab 2, CR 2.	Technical
RSPT 2233	Respiratory Care Case Mngmnt	This course challenges students to utilize their written and communication skills to investigate, organize, and present case studies. Lec 2, Cr 2.	Technical
RSPT 2258	Respiratory Care Patient Assessment	This course provides instruction in the integration of patient examination techniques, clinical lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and non-invasive hemodynamics results in patient assessment. Lec 1, Lab 4, Cr 2.	Technical
RSPT 2262	Clinical Iii- Respiratory Care Therapy/ Therapist	This course is 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. Lab 12, Cr 2.	Technical
RSPT 2305	Pulmonary Diagnostics	The theory and techniques involved in pulmonary function testing, diagnostics with emphasis on blood gas theory and analysis, quality control, oximetry, and capnography, Lec 2, Lab 4, Cr 3.	Technical
RSPT 2310	Cardiopulmonary Disease	A discussion of the pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment and detection of cardiopulmonary disease. Lec 3, Cr 3	Technical
RSPT 2314	Mechanical Ventilation	This course provides an In-depth coverage and application of therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. It includes indications, complications, and physiologic effects/principles of mechanical ventilation. It emphasizes initiation, management, and wearing of ventilatory support. Lec 2, Lab 4, Cr 3.	Technical
RSPT 2353	Neonatal/Pediatric Cardiopulmonary Care	In this course the student will learn of advanced concepts of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Lec 2, Lab 4, Cr 3.	Technical
RSPT 2363	Clinical- Respiratory Therapy Technician IV	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. Lec 18, Cr 3.	Technical
RSPT 2453	Neonatal/ Pediatric Cardiopulmonary Care	This course is a study of acute care, monitoring, and management of neonatal/ pediatric patient. Lec 3, Lab 3, Cr 4.	Technical
RSPT 3333	Respiratory Care Case Management	Introduction to the role of case manager of the care of cardiopulmonary disorders. Specific practice will be provided in developing case manager skills in the management of asthma and COPD. Lec 1, Lab 6, Cr 3.	Academic
RSPT 4210	Polysomnography Instrumentation I	This course is designed to teach the function, operation and design of electroneuro diagnostic equipment. Monitoring devices, electrode application and patient connection will be covered in detail. Lec 2, Cr 2.	Academic
RSPT 4215	P.S.G. Instr II	This course will provide an advanced study of waveform characteristics and montage development, filters and PSG electronics. Signal pathways, reference electrodes, impedance checking and filter settings in calibration waves will be covered. Lec 2, Cr 2.	Academic
RSPT 4221	Clinical Polysomnography-Sleep Staging I	Direct patient diagnostic monitoring will be performed under close supervision in a sleep lab. Differential amplifiers, amplifier calibration, artifact correction and the professional role of the sleep technician will be demonstrated. Lec 16, Cr 2.	Academic
RSPT 4314	Mechanical Ventilation for Non RCPs	Understanding ventilator concepts and technology including indications, complications, and troubleshooting. The learner will be required to write a significant paper as part of this course. Lec 3, Cr 3.	Academic
RSPT 4319	Mechanical Ventilation of the Neonatal/ Pediatric Patient	Preparation to conduct the therapeutic procedures to achieve to achieve adequate spontaneous and artificial ventilation of the neonatal and pediatric patient. Topics include volume, pressure, and fluid ventilation and the indications, complications, and physiological effects ventilator support. Lec 3, Cr 3.	Academic

RSPT 4320	Fundamentals of Polysomnography	This course will offer and introduction to the physiology of sleep including sleep neurology, sleep architecture, classification of sleep disorders. There will be a review of basic cardiac physiology and ECG arrhythmia recognition. Sleep pathologies will be discussed according to etiology, pathophysiology, symptoms, diagnosis, treatment and prognosis. Lec 3, Cr 3.	Academic
RSPT 4323	Clinical Polysomnography-Sleep Staging II	This is an advanced clinical education in sleep staging rules light, delta and REM sleep scoring and analysis. EEG, EMG, ECG and respiratory events will be discussed in depth with the components of the polysomnogram reports. Lec 16, Cr 3.	Academic
RSPT 4325	Clinical Simulations in Respiratory Care	A review of the National Board for Respiratory Care Clinical Simulation Examination matrix and practices. The learner will learn techniques used to take this exam and have practice in multiple patient care scenarios. Lec 3, Cr 3.	Academic
RSPT 4330	Polysomongraphy Therapeutic Intervention	In-depth study of the treatments available for sleep apnea will be performed, including CPAP, BIPAP, oxygen therapy, patient adjunctive fitting, surgical intervention and the role of the sleep technician in titration. Special attention will be given to titration algorithms, nocturnal seizure disorder studies, MSLT's and MWT's. Lec 3, Cr 3.	Academic
RSPT 4333	Issues and Trends in Respiratory Care	Students will discuss current trends in the application of respiratory care with particular attention to procedures that have evidence of improved patient outcomes. Issues concerning the practice of respiratory care will be researched and discussed. Lec 3, Cr 3.	Academic
RSPT 4358	Advanced Respiratory Care Patient Assessment	Instruction in the integration of patient examination techniques, clinical lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and no-invasive hemodynamics results in patient assessment. Lec 2, Lab 4, Cr 3.	Academic
SGNL 1301	Beginning American Sign Language I	This course is an introduction to the basic skills needed in the production and comprehension of America Sign Language (ASL), focusing on the manual alphabet, numbers, conversational skills, culturally appropriate behaviors, and ASL grammar. Lec 3, Cr 3.	Academic
SGNL 1302	Beginning American Sign Language II	Beginning American Sign Language II develops receptive and expressive ability and allows for recognition and demonstration of more sophisticated grammatical features. Increased fluency and accuracy in finger spelling and numbers is emphasized, along with providing opportunities for interaction within the Deaf community. Lec 3, Cr 3.	Academic
SOCI 1301	Introduction to Sociology	The study of human society! relationship of culture, social interaction, and group life to personality and human behavior! analysis of group structure, social organization, and social process. Lec 3, Cr 3.	Academic
SOCI 1306	Social Problems	A survey and analysis of contemporary social problems, their likely causes and how they affect us with consideration of possible solutions that work toward social improvement. Particular attention is given to local problems. Lec 3, Cr 3.	Academic
SOCI 2301	Marriage and Family	A functional analysis of the contemporary American family! basic sociological in sights, including a brief historical and cross-cultural perspective as well as intensive study of American courtship, marriage, and family institutions. Lec 3, Cr 3.	Academic
SOCI 2317	Statistical Methods in Sociology	Measures of central tendency and variability! statistical inference! correlation and regression. Lec 3, Cr 3.	Academic
SOCI 2319	Mexican-American Experience	An introduction to the study of social, political and cultural processes which have shaped the Mexican American community in the United States with emphasis on the experience of Mexican American people in the Rio Grande Valley of Texas. Lec 3, Cr 3	Academic
SOCI 3313	Criminology	A study of crime, its causes, and its social treatment. Lec 3, Cr 3	Academic
SOCI 3323	Hispanics in Global Society	An examination of social, political and cultural processes which have shaped the Mexican American community in the United States! an analysis of its relations with other groups in society, its status, aspirations and power. An assessment of present opportunities and prospects for the future. Emphases will be placed on the development and status the development and status of Mexican American in Texas. Lec 3, Cr 3.	Academic
SOCI 3324	Sociology of Health	Analysis of basic problems in the maintenance and preservation of health and delivery of health care services by social class. Focus is on environmental course of disease, social-psychological response to illness and family cohesion! strain and resources as affected by illness. Lec 3, Cr 3.	Academic

SOCI 3333	American Communities	This course analyzes the patterns of growth and development of American cities, suburbs, towns, edge cities, and planned communities. Consideration will be given to the demographic, ecological, political, cultural, and technological factors affecting urban communities. Lec 3, Cr 3.	Academic
SOCI 3335	Social Theory	This course surveys the major theorists of Sociology's classical era, as a well as modern theoretical approaches such as functionalism, neo-Marxism, symbolic interactionism, ethnomethodology, as an exchange network, and feminist theories. Students are encouraged to take this course as soon as possible after choosing Sociology as a major. Lec 3, Cr 3.	Academic
SOCI 3363	Gender	This course will survey and analyze the social construction of gender in American society today. The historical and contemporary cultural linking of human traits to a particular sex, the resulting inequality of power between the sexes, and the effects of this on the occupational structure of the family are areas considered in this course. Lec 3, Cr 3.	Academic
SOCI 3364	Minorities	This course examines inter-group relations that produce status and power differences for groups defined as minorities. The main focus of the course will be the social and cultural processes that place and maintain American minorities in disadvantaged statuses. Various historical experiences involving African Americans, Mexican Americans, and others, will be surveyed. Notable situations of inter-group conflict in various parts of the world will be reviewed. Lec 3, Cr 3	Academic
SOCI 3373	Mass Communications and Culture	The course provides an overview of media theory and research, and analyzes the ways in which media organization and environmental influences shape mass cultural products. Specific areas of attention include television, movies, books publishing, newspapers, and the internet. Lec 3, Cr 3	Academic
SOCI 3374	Religion in Society	This course will survey and analyze religion in contemporary society. Religion will be examined as an institution that provides a variety of functions for social solidarity and differentiation as well as personal and ethnic identify. Varieties of organizational structure linked to historical factors and social structure will also be analyzed. The adaptation of religious belief to modernity will be assessed within the context of various cultural traditions. Lec 3, Cr 3	Academic
SOCI 3393	Aging	The course considers the social meaning of age and analysis of the basic problems faced by the aged. Issues of health, income, work, religion, leisure, and interpersonal relationships of the aged are addressed. Lec 3, Cr 3.	Academic
SOCI 4305	Methods of Social Research	An overview of the use of scientific methods in social research, formulation of research designs, hypothesis testing, sampling, interviewing, observation, coding, use of documents, questionnaires and scales. Emphasis is on interpretation of social data. This is a capstone course for majors. Non-majors are discouraged from enrolling in this course. Lec 3, Cr 3.	Academic
SOCI 4314	Sociology of Deviance	This course provides a review of theory and research on the nature and extent of deviant behavior. Particular types of individual and subcultural deviance will be addressed. Lec 3, Cr 3	Academic
SOCI 4325	Population and Migration	An introduction to the study of human population and migration and their impact on economic resources, the environment, education, health, and social services. An analysis of factors that affect reproduction, life chances, and migration, present trends and prospects for the future. Lec 3, Cr 3.	Academic
SOCI 4352	Social Inequality	This course addresses research, concepts and theory related to the causes and consequences of inequality in social life. It examines how inequality is built into the structure and culture of major social institutions! government, economy, religion, family, education. Lec 3, Cr 3	Academic
SOCI 4374	Special Topics in Sociology	This course covers topics of special interest within Sociology. This course may be repeated twice for a total of six hours, as topics vary. Lec 3, Cr 3.	Academic
SOCI 4375	Organizations and Work	This course examines our organizationally-dominated world through the lens of organization theory. The transformation of world and the major schools of management theory during this century are considered. Lec 3, Cr 3	Academic
SOCI 4383	Independent Studies	Designed to offer students the opportunity to gain experience in research or in-depth theoretical/ empirical readings in a substantive area not normally covered within standard courses. Research projects or advanced readings will vary according to student interest and faculty availability. Sequential registration for up to nine hours is permitted as topics vary. Lec 3, Cr 3	Academic

SOCW 2361	Introduction to Social Welfare	This course traces the philosophy and historical development of social welfare as an institution in Europe and America. Included is general overview of social welfare institution, structures and functions including social work concepts, ethics, and practice. A service learning activity of 35 volunteer hours with a social agency is required. Lec 3, Cr 3.	Academic
SOCW 2362	Social Welfare Institution and Legislation	The development of social welfare institutions in the United States. Pays particular attention is to the structures and the functions of social welfare as an institution, social welfare organizations, historic and current social welfare legislation, gaps in the social welfare systems, and problems of social reforms. Lec 3, Cr 3.	Academic
SPAN 1311	Elementary Spanish I	An introduction to the basic principles of grammar, emphasizing pronunciation, oral practice, conversation, and dictation. Also includes simple exercises in composition and easy reading within a cultural framework. Lec 3, Cr 3.	Academic
SPAN 1312	Elementary Spanish II	This course is the continuation of SPAN 1311. Lec 3, Cr 3.	Academic
SPAN 2311	Intermediate Spanish I	A comprehensive review of Spanish grammar. Lec 3, Cr 3	Academic
SPAN 2312	Intermediate Spanish II	Continuation of SPAN 2311. Lec 3, Cr 3	Academic
SPAN 2313	Basic Spanish for Bilinguals I	An introductory course for students who possess a spoken knowledge of Southwestern U.S. Spanish and who wish to develop competency in reading and writing standard Spanish. Lec 3, Cr 3.	Academic
SPAN 2315	Basic Spanish Bilinguals II	This course is a continuation of SPAN 2313. It is not for Spanish and Bilingual Education majors of minors. Lec 3, Cr 3.	Academic
SPAN 2316	Career Spanish	This course is a study of Spanish language skills designed to meet the interest and needs of students pursuing careers in fields such as education, medicine, and technology. Taught in Spanish. Lec 3, Cr 3.	Academic
SPAN 2317	Business Spanish	An introduction to Spanish business correspondence and the translation of commercial documents from English to Spanish. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 2321	Hispanic Language and Culture I	An introduction to the language, culture, and literature, of the Hispanic world. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 2322	Hispanic Language and Culture II	A continuation of SPAN 2321. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3301	Spanish Literature (1100 - 1750)	A survey of the literature of Spain from the beginning to 1750. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3302	Spanish Literature (1750-Present)	A survey of the literature of Spain from the mid-18th century to present. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3303	Advanced Spanish Composition	Intensive training in Spanish composition, including class publications of material in Spanish. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3310	Masterpieces of Spanish American Literature I	An investigation of the literary works of the principal narrators, poets and dramatists of Spanish America from the beginning of Spanish Colonialism to Modernism. Analysis of form and content and study of the historical background and literary currents in each work. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3311	Masterpieces of Spanish American Literature II	An investigation of the literary works of the principal narrators, poets and dramatists of Spanish America from Modernism to the present. Analysis of form and content and study of the historical background and literary currents in each work. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3330	Advanced Spanish Grammar	A study of grammatical concepts with concentration on basic sentence structure, the paragraph, principles of punctuation, and functional grammar. Course designed for Spanish majors and minors as well as Education Minors in bilingual education. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 3332	Spanish/ English Translation	This course is an orientation in the theory and professional practice of translating a text from Spanish to English, including consideration of both cultural and morphosyntactical problems. Lec 3, Cr 3	Academic
SPAN 3333	English/ Spanish Translation	This course is an orientation in the theory and professional practice of translating a text from English to Spanish, including consideration of cultural and morpho-syntactical problems. Lec 3, Cr 3.	Academic
SPAN 3334	Translation Technologies	This course is an overview of practical software and computational methodologies for the professional practice of translation, including advanced word-processing, terminological database management and translation memory use. Lec 3, Cr 3.	Academic
SPAN 3335	Topics in Translation	This course studies topics in the theory and practice of Spanish and English Translation in areas other than business and legal texts, including but not limited to the following: education, medical specialties, and technology. May be repeated two times for a total of 9 hours. Lec 3, Cr 3.	Academic
SPAN 3340	The Hispanic World	This course introduces students to the diverse cultures of the Hispanic world. Lec 3, Cr 3.	Academic

SPAN 4303	Hispanic Civilization	A panoramic view of the political, literary, and cultural history of Spain and the Spanish-speaking countries of America. Recommended as a review for the ExCet examination in Spanish. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4304	Spanish Lyric Poetry	A survey of lyric poetry from its beginning to the present. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4305	Cervantes	A study of the principal works of Miguel de Cervantes with emphasis on Don Quijote. Given in Spanish. All readings, examinations, and papers in Spanish. Lec 3, Cr 3	Academic
SPAN 4307	Spanish American Novel	An investigation of the Spanish American novel of the 19th and 20th centuries. Students will become knowledgeable of the literary currents associated with the genre within their historical and social contexts! become aware of the key elements of the novel! develop the ability to analyze the key elements, identify literary techniques and devices, and develop the ability to articulate the findings of his/her own analysis and criticism. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4309	Contemporary Spanish Literature	A study of the principal literary works of Spanish from the generation of 1898 to the present. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4310	Spanish Phonology and Phonetics	An analysis of the phonetic and phonological systems of the Spanish language. Presentation of the articulatory description of the sounds of the language and introduction to the phonological processes that exist in the language, including stress assignment, syllabification and intonation. Description and analysis of some phonological processes that occur in the major varieties of the language. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4311	The Mexican Novel	The study of the major novels of Mexico from beginning to the present. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4312	Structure of the Spanish Language	An analysis of sentence structure in Modern Spanish from a generative perspective. Introduction to the goals and methods of generative grammar and a presentation of their relevance to the syntax of Spanish. Topics covered include pronominal deletion, sentence embedding, and sentence topicalization. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4316	Acquisition of the Spanish Language	A review of the basic principles of Spanish grammar. Emphasis on orthography and the acquisition of a formal writing style. Basic orientation in the theory and acquisition of the Spanish language among bilingual Spanish-speaking children. Introduction to the historical evolution of the Spanish language and the role of dialect and register. Discussion of modern techniques and methodologies used in the teaching of Spanish. Taught in Spanish. Lec 3, Cr 3.	Academic
SPAN 4317	Spanish Language in Social Context	An analysis of language variation in the Spanish-speaking world. Correlation of social variables and specific linguistic variables. Language attitudes in some Spanish-speaking communities and their ramifications in the processes of language maintenance and shift. Linguistic and social manifestations of language contact, such as, direct transfer and code-switching. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4332	English/Spanish Commercial Translation	Intensive practice in translation from English to Spanish and Spanish to English of commercial, financial, and marketing texts, as well as shipping, insurance, and customs house documents. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4334	English/Spanish Legal Translation	An analysis of legal language in English and Spanish. Intensive practice in the translation from English to Spanish and Spanish to English of contracts and government regulations, as well as texts relating to international organizations, civil law, and criminal law. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4368	Children's Literature in Spanish	A broad survey of literary works in Spanish appropriate for the young reader by the principal narrators, poets, and dramatists of the Hispanic World. Given in Spanish. Lec 3, Cr 3	Academic
SPAN 4369	Hispanic Theater	A study of selected dramatic works of representative Hispanic authors from a variety of geographical locales and cultures within the Spanish-speaking world. Interpretation and analysis of the aesthetic and ethical dimensions of the works, as well as the creative process that brought them to life on the stage. Given in Spanish. Lec 3, Cr 3.	Academic
SPAN 4371	Chicano Narrative	A general introduction to short stories and novels written in Spanish by U.S. citizens of Mexican descent. This survey begins with a picaresque novel considered to be a forerunner of today's Chicano novel, continues with post WWII male writers, and ends with a more recent novel by a woman writer exploring feminist issues. Given in Spanish. Lec 3, Cr 3.	Academic

SPAN 4373	Topic Studies in Hispanic Culture	This course is an advanced study of topics in Hispanic culture, civilization, languages, or literature in areas not generally available as part of regular course offerings. May be repeated three times for a total of 9 hours, as topics change. Lec 3, Cr 3.	Academic
SPAN 4392	Senior Seminar	Integration, synthesis, and evaluation of the graduating senior's cumulative studies of Hispanic Letters and the Spanish language. Portfolio preparation and evaluation! the planning, preparation and writing of a Senior Mini-thesis! and a Capstone Examination. Lec 3, Lab 3, Cr 3.	Academic
SPANU 2318	Basic Spanish to English Translation	This course is an introduction for bilingual students to the fundamental nature of translation, the formal and morhpo-syntactical differences between English and Spanish and practical translation procedure. Close attention given to language interference. Lec 3, Cr 3.	Academic
SPANU 2319	Basic English to Spanish Translation	This course is an introduction for bilingual students to the fundamental nature of translation, the formal and morhpo-syntactical differences between English and Spanish and practical translation procedure. Close attention given to Spanish spelling norms as well as language interference. Lec 3, Cr 3.	Academic
SPCH 1315	Applied Communication	The focus of this course is the promotion of the student success- in college and life after college- through the adoption of effective communication skills. Special emphasis will be placed on developing skills in listening, interviewing, small group interaction, and public speaking and how those skills enhance student success. Lec 3, Cr 3.	Academic
SPCH 1318	Interpersonal Communication	Designed to study communication barriers between individuals based on cultural, physical, and psychological differences. Emphasis will be placed on improving one-to-one communication and small group interaction. Lec 3, Cr 3.	Academic
SPCH 1342	Speech for the Bilingual Student	Designed for bilingual students who want to improve their English. A study of the sound system, stress patterns, timing, melody, and phraseology of American English. Practice in presenting ideas to an audience. Lec 3, Cr 3.	Academic
SPCH 2333	Group Communications and Discussion	This course is design to provide students with the necessary skills to participate in decision-making, problem solving, and group discussion effectively. Lec 3, Cr 3.	Academic
SPEA 3390	Introduction to Exceptional Children - A.C.P.	This course examines the philosophical, historical and legal foundations of special education. Emphasis is placed on the characteristics and needs of individuals with disabilities from early childhood through the transition into adulthood. Specific needs for individualization such as assistive technology and related services are addressed. Lec 3, Cr 3	Academic
SPEA 4320	Legal Roles of Special Education -A.C.P	This course examines legal and ethical issues of special education. Roles and responsibilities of special educators, administrators and related support personnel are discussed in addition to the relationship between assessment and instructional planning for students at different levels (EC-12). An emphasis is placed on collaboration during key transition periods. Lec 3, Cr 3	Academic
SPEA 4330	Problems in Language and Literacy for Individuals With Special Needs- A.C.P	This course examines monolingual and bilingual language development and literacy acquisition for students at different levels (EC-12), with emphasis on common communication disorders. Emphasis will be placed on assessment of culturally and linguistically diverse populations, the need for assistive technology and social skills interventions. Lec 3, Cr 3.	Academic
SPEA 4380	Classroom Instruction for Individuals With Special Needs- A.C.P	This course will examine assessment and instructional methods, techniques and strategies used in special education to promote academic performance in all content areas including math, language arts and reading. Emphasis is placed on facilitating achievement in a variety of settings and situations for students at different levels (EC-12). Lec 3, Cr 3.	Academic
SPED 3390	Introduction to Exceptional Children	This course is an introduction to the physical and psychological characteristics of the exceptional child. Emphasis is on the theory, characteristics, and educational planning for learners with special needs. Lec 3, Cr 3.	Academic
SPED 4313	Directed Teaching - Generic Special Education	This course must be taken by all undergraduate students working toward special education certification. The course requires observing and teaching in a public school special education classroom all day, Monday through Friday, for six weeks. This work is done under the direction of a fully certified teacher of the class to which the student is assigned and under the supervision of a college professor who observes and evaluates the student's process. Seminars and individual conferences are a required part of the course. Lec 3, Cr 3	Academic

SPED 4320	Legal Roles and Responsibilities of the Special Educator	This course examines the legal and ethical issues of special education. The roles and responsibilities of special educators, administrators, and related support personnel are discussed in addition to the relationship between assessment and instructional planning for students at different levels (EC- 12). An emphasis is placed on the need for collaboration during key transition periods in an individual's life. Lec 3, Cr 3.	Academic
SPED 4330	Problems in Language and Literacy for Individuals With Special Needs	This course examines monolingual and bilingual language development and literacy acquisition for students at different levels (EC-12), with an emphasis on common communication disorders. Issues related to assessment, such as the needs of culturally and linguistically diverse populations, will be addressed. Related issues and common problems such as the need for assistive technology or social skills interventions will also be addressed. Lec 3, Cr 3.	Academic
SPED 4350	Teaching Struggling Learners Inclusive Classrooms	This course will explore response to intervention (RTI) models of service delivery for struggling learners in inclusive classrooms. Curriculum-based measurement and skills for effective collaboration will be major emphases of the course. Lec 3, Cr 3.	Academic
SPED 4380	Classroom Instruction for Individuals with Special Needs	This course will examine the assessment and instructional methods, techniques and strategies used in special education to promote an individual's academic performance in all content areas including math, language arts, and reading. An emphasis is placed on facilitating achievement in a variety of settings and situations for students at different levels (EC-12). Lec 3, Cr 3.	Academic
SPED 4386	Modifications Inclusive Setting	For General Education Teachers. This course focuses on instructional and behavioral strategies for teaching students with mild/mode rate disabilities in inclusive settings. Emphasis is placed on techniques and strategies that enhance language and literacy development. Modifications related to language arts, mathematics, and science instruction, as well as various behavior management strategies, are addressed. Lec 3, Cr 3.	Academic
SPED 4395	Practicum in Generic Special Education	This course will examine the special education methods, techniques and strategies used with individuals with disabilities in a variety of school settings for students at different levels (EC-12). Classroom practice with behavior management, assessment techniques and instructional planning for individuals with disabilities will be emphasized. Field experience with collaboration and consultation models will also be included. Lec 3, Cr 3.	Academic
SRVY 2348	Plane Surveying	This course covers the use of surveying instruments and filed books, basic measuring procedures, vertical and horizontal control, traverse closure, and surveying terminology and calculations. Students will gain familiarity with history of land owners in Texas. Lec 2, Lab 3, Cr 3.	Technical
TECT 3301	Foundations of Technology Training	Study of principles and methods of classroom and laboratory control, teaching and integrating career oriented into educational goals. Lec 3, Cr 3.	Academic
TECT 3302	Technology Training Methods and Strategies	In this course, students will apply adult learning theories, training strategies and methods, and innovative technologies to design and deliver effective training that correspond to the way adults learn. Lec 3, Cr 3.	Academic
TECT 3303	Training Methods in Industry	An organized course designed to provide instruction and guidance by trained resource persons in selected topics related to technology. The course may be repeated with different topics. Six hours may be applied to an undergraduate degree. Lec 3, Cr 3.	Academic
TECT 4304	Consulting Practice in Technology Training	The course is designed to allow students to apply professional experiences, previously applied education principles, and knowledge along with skills acquired in the BAT and BAAS, to the consultancy process by identifying an instructional need, developing a training plan and implementing training solutions. Lec 3, Cr 3.	Academic
TECT 4305	Current Issues in Technology Training	This course introduces learners to a framework for the study of issues in technology training. Students will utilize innovative learning and presentation technologies to identify, analyze, and evaluate issues that impact adult learning and performance in the workplace. Lec 3, Cr 3.	Academic
TECT 4306	Multicultural Technology Training	This course provides students with an understanding of learner diversity and its effect on technology training and adult learning. Students will learn how to design and deliver trainings that create inclusive learning environments and incorporate learners' milticultural learning and communication styles. Lec 3, Cr 3.	Academic

TRSP 3332	Spanish/English Translation	This course is an orientation in the theory and professional practice of translating a text from Spanish to English, including consideration of both cultural and morphosyntactical problems. Lec 3, Cr 3	Academic
TRSP 3333	English/ Spanish Translation	This course is an orientation in the theory and professional practice of translating a text from English to Spanish, including consideration of cultural and morpho-syntactical problems. Lec 3, Cr 3.	Academic
TRSP 3334	Translation Technologies	This course is an overview of practical software and computational methodologies for the professional practice of translation, including advanced word-processing, terminological database management and translation memory use. Lec 3, Cr 3.	Academic
TRSP 3335	Topics in Translation	This course studies topics in the theory and practice of Spanish and English Translation in areas other than business and legal texts, including but not limited to the following: education, medical, specialties, and technology. It may be repeated for a total of 9 credit hours as the topics change. Lec 3, Cr 3.	Academic
TRSP 4332	Commercial Translation	Intensive practice in translation from English to Spanish and Spanish to English of commercial, financial, and marketing texts, as well as shipping, insurance, and customs house documents. Lec 3, Cr 3	Academic
TRSP 4334	Legal Translation	An analysis of legal language in English and Spanish. Intensive practice in the translation from English to Spanish and Spanish to English of contracts and government regulations, as well as texts relating to international organizations, civil law and criminal law. Lec 3, Cr 3	Academic
TRSP 4366	Interpreting I	A basic orientation in the theory and practice of interpreting English to Spanish and Spanish to English on sight translation and short consecutive interpreting, and also preparation for simultaneous interpreting. Lec 3, Cr 3	Academic
TRSP 4367	Interpreting II	Advanced practice in English to Spanish and Spanish to English consecutive and simultaneous interpreting with close attention to terminology and documentation. Conference interpretation. Lec 3, Cr 3	Academic
TRSPU 2318	Basic Spanish to English Translation	This course is an introduction for bilingual students to the fundamental nature of translation, the formal and morhpo-syntactical differences between English and Spanish and practical translation procedure. Close attention given to language interference. Lec 3, Cr 3.	Academic
TRSPU 2319	Basic English to Spanish Translation	This course is an introduction for bilingual students to the fundamental nature of translation, the formal and morhpo-syntactical differences between English and Spanish and practical translation procedure. Close attention is given to Spanish spelling norms as well as language interference. Lec 3, Cr 3.	Academic
TRVM 1345	Travel and Tourism Sales and Marketing Techniques		Technical
VHPA 1301	Auto Parts Nomenclature	This course is an overview of automotive parts, principles of operation, and location on the vehicle. Lec 3, Cr 3.	Technical
VHPA 1391	Special Topics	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. Lec 3, Cr 3	Technical
VHPA 1441	Auto Parts Counter Sales	Skill development in communication, sale and merchandising of auto parts to vehicle owners and repair technicians with an emphasis on customer relations, communication, sales, and merchandising skills are course topics. Lec 4, Cr 4.	Technical
VHPA 2331	Auto Parts Management	This course is a study in managing the inventory of a parts department using manual and computerized programs. Topics include store orders, inventory control practices, database management, and physical inventory. Lec 3, Cr 3	Technical
VNSG 1119	Leadership and Professional Development	This course offers a study of the importance of professional growth. Covered topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations and continuing education. Lec 1, Cr 1.	Technical
VNSG 1160	Clinical I-B	This course offers a health-related work-based learning experience that enables that the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Clinical 6, Cr 1.	Technical
VNSG 1161	Clinical II	This course offers a health-related work based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervisions is provided by the clinical professional. Clinical 6, Cr 2.	Technical

VNSG 1162	Clinical III	This course offers a health-related work based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervisions is provided by the clinical professional. Clinical 6, Cr 1.	Technical
VNSG 1226	Gerontology	This course offers an overview of the normal physical, psychosocial and cultural aspects of the aging process. This course addresses common disease processes of aging, and offers exploration of attitudes toward care of the older adult. Lec 2, Cr 2.	Technical
VNSG 1227	Essentials of Medication Administration	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. Lec 2, Cr 2.	Technical
VNSG 1238	Mental Illness	Study of human behavior with emphasis on emotional and mental abnormalities and mode of treatment incorporating the nursing process. Lec 2, Cr 2.	Technical
VNSG 1260	Clinical I-A	This course offers 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. Clinical 7.5, Cr 2.	Technical
VNSG 1304	Foundations of Nursing	This course offers an introduction to the nursing profession including history, standards of practice, legal and ethical issues, and role of the vocational nurse. Covered topics include mental health, therapeutic communication, cultural and spiritual diversity, nursing process and holistic awareness. Lec 3, Cr 3.	Technical
VNSG 1330	Maternal-Neonatal Nursing	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. Lec 3, Cr 3.	Technical
VNSG 1331	Pharmacology	This course offers the fundamentals of medication and their diagnostic, therapeutic, and curative effects. It also includes nursing interventions utilizing the nursing process. Lec 3, Cr 3.	Technical
VNSG 1334	Pediatrics	Study of childhood diseases and childcare from infancy through adolescence incorporating basic aspects of normal growth and development. Focus on the care of the well and ill child utilizing the nursing process. Lec 3, Cr 3.	Technical
VNSG 1360	Clinical I-A	This course offers 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. Clinical 10, Cr 3.	Technical
VNSG 1402	Applied Nursing Skills I	This course offers an introduction to and application of primary nursing skills. The emphasis is on utilization of nursing process and related scientific principles of safety, body mechanics, infection-control, asepsis and sterile technique. Lec 7, Lab 2, Cr 4.	Technical
VNSG 1429	Medical/Surgical Nursing I	This course covers the application of the nursing process to the care of adult patients experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Lec 4, Cr 4.	Technical
VNSG 1432	Medical/Surgical Nursing II	This course is a continuation of Medical-Surgical Nursing I with application of the nursing process to the care of the adult patient experiencing medical-surgical conditions along the health-illness continuum in a variety of health care settings. Lec 4, Cr 4.	Technical
VNSG 2261	Clinical IV	This course offers 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. Clinical 11, Cr 2.	Technical
VNSG 2262	Clinical V	This course offers 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. Clinical 10, Cr 3.	Technical
VNSG 2461	Clinical IV	This course offers 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. Clinical 13, Cr 4.	Technical

VNSG 2462	Clinical V	This course offers 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. Clinical 13, Cr 4.	Technical
WDWK 1313	Cabinet Making	This course covers basic design, construction, and installation of base and wall cabinets for residential kitchens and bathrooms and safety in the use of hand and power tools (portable and stationary) typical to cabinet construction and installation. The course will provide for proper finish-work skill development in sanding, sealing, staining, and other techniques. Lec 2, Lab 3, Cr 3.	Technical
WLDG 1307	Introduction to Welding Using Multiple Processes	A study of basic welding processes, this course includes oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). Lec 2, Lab 3, Cr 3.	Technical
WMGT 1166	Practicum	This course entails practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Pr 10, Cr 1.	Technical
WMGT 2166	Practicum	This course entails practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Pr 10, Cr 1.	Technical