

DIVISION OF BUSINESS, MATH, SCIENCES AND TECHNOLOGY

Administrative Office Careers	112
▶ Legal Office Specialist (Certificate)	113
▶ Office Specialist (Certificate)	113
▶ Legal Office Management (Associate of Applied Science)	114
▶ Office Management (Associate of Applied Science)	114
Automotive Technology	115
▶ Automotive Technology (Certificate)	116
▶ Ford Maintenance and Light Repair(Certificate)	116
▶ Automotive Technology (Associate of Applied Science)	117
▶ Automotive Technology Specialization: GM-Automotive Service Education Program (Associate of Applied Science)	117
Biology	118
▶ Biology, Field of Study (Associate of Science)	119
Business Administration	120
▶ Accounting Clerk (Certificate)	122
▶ Banking (Certificate)	122
▶ Import/Export (Certificate)	123
▶ Logistics (Certificate)	123
▶ Management (Certificate)	124
▶ Marketing (Certificate)	124
▶ Business Administration Specialization: Accounting (Associate of Applied Science)	125
Specialization: Banking (Associate of Applied Science)	125
Specialization: Import/Export/Logistics (Associate of Applied Science)	126
Specialization: Management (Associate of Applied Science)	126
Specialization: Marketing (Associate of Applied Science)	127
Specialization: Technology Management (Associate of Applied Science)	127
▶ Business Administration-Transfer Plan, Field of Study (Associate of Arts)	128
Business Computer Systems	129
▶ Technology Support Specialist (Certificate)	130
▶ Business Computer Systems Specialization: Computer Specialist (Associate of Applied Science)	131
Specialization: Information Security Specialist (Associate of Applied Science)	132
Specialization: Multimedia Specialist (Associate of Applied Science)	133
Specialization: Networking Specialist (Associate of Applied Science)	134
Specialization: Webmaster Specialist (Associate of Applied Science)	135
Chemistry	136
▶ Chemistry, Field of Study (Associate of Science)	137

Computer Aided Drafting and Design	138
▶ Architectural Drafting (Certificate)	139
▶ Civil Drafting (Certificate).....	139
▶ Digital Imaging (Certificate)	140
▶ Geographic Information Systems (Certificate)	140
▶ Computer Aided Drafting and Design	
Specialization: Architectural Drafting (Associate of Applied Science)	141
Specialization: Civil Drafting (Associate of Applied Science).....	142
Specialization: Digital Imaging (Associate of Applied Science)	143
Specialization: Geographic Information Systems (Associate of Applied Science)	144
Computer Science.....	145
▶ Computer Information Systems, Field of Study (Associate of Science)	146
▶ Computer Science, Field of Study (Associate of Science)	147
Culinary Arts	148
▶ Commercial Cooking (Certificate).....	149
▶ Culinary Arts (Associate of Applied Science).....	149
▶ Culinary Arts	
Specialization: Restaurant Management (Associate of Applied Science).....	150
Diesel Technology.....	151
▶ Diesel Technology (Certificate)	152
▶ Diesel Technology (Associate of Applied Science)	152
Electronic and Computer Maintenance Technology.....	153
▶ Computer Maintenance Specialist (Certificate)	154
▶ Computer Support Specialist (Certificate).....	154
▶ Convergent Technology Specialist (Certificate)	155
▶ Electronics Technology Specialist (Certificate)	155
▶ Electronic and Computer Maintenance Technology	
Specialization: Computer Maintenance Technology (Associate of Applied Science)	156
Specialization: Computer Support Specialist (Associate of Applied Science).....	156
Specialization: Convergent Technology Specialist (Associate of Applied Science)	157
Specialization: Electronics Technology Specialist (Associate of Applied Science).....	157
Engineering.....	158
▶ Engineering, Field of Study (Associate of Science).....	159
Heating, Ventilation, Air Conditioning and Refrigeration Technology	160
▶ Heating, Ventilation, Air Conditioning & Refrigeration Technology (Certificate).....	161
▶ Heating, Ventilation, Air Conditioning & Refrigeration Technology (Associate of Applied Science)	161
Manufacturing Technology.....	162
▶ Industrial Systems Maintenance Technology (Certificate).....	163
▶ Precision Manufacturing Technology (Certificate)	163
▶ Precision Manufacturing Technology (Associate of Applied Science).....	164
Mathematics	165
▶ Mathematics, Field of Study (Associate of Science)	165
Paralegal.....	166
▶ Paralegal (Associate of Applied Science).....	166
Physics	167
▶ Physics, Field of Study (Associate of Science).....	167

Administrative Office Careers

Legal Office Specialist Certificate

The Legal Office Specialist curriculum is a one-year program designed to teach students the skills and abilities essential to law firms, judicial offices, trust departments at financial institutions, and the general administrative career field. The program combines training in the latest technical and computer skills with specialized coursework unique to the legal profession, including exposure to legal practices, preparation and practical application of documents and terminology used in the legal office.

Office Specialist Certificate

The Office Specialist curriculum is a one-year program designed for the student who is interested in gaining entry-level knowledge, skills, and attitudes necessary for a career as an office professional. Students are prepared for administrative office positions in business, public service, and specialized office environments. The program combines traditional office education with microcomputer software applications such as word processing, spreadsheet, database, desktop publishing, records and project management.

Legal Office Management Associate of Applied Science

The Legal Office Management curriculum is a two-year program designed to prepare students to manage functions in the legal office environment. The course work adds administrative systems, advanced computer applications, word and data processing, graphics and presentation software, employee supervision and management, and written and oral communications. Graduates are well prepared to work in the challenging and exciting legal office environment of a diversity of organizations ranging from a one-person law firm to a multiple partnering law firm.

Office Management Associate of Applied Science

The Office Management curriculum is a two-year program designed to prepare students to manage functions in the office environment. The course work adds administrative systems, advanced computer applications, word and data processing, graphics and presentation software, employee supervision and management, and written and oral communications. Graduates are well prepared to work in the challenging and exciting office environment of a diversity of organizations ranging from a one-person professional office to the global corporation.

ADVISORY COMMITTEE

Amanda Elizondo, City of Weslaco; *Julia Ramon*, City of La Joya; *Maria M. Villarreal*, Edinburg Childcare, Inc.; *Mary Munoz*, City of Pharr; *Holly Guerrero*, City of Rio Grande; *Josie Hinojosa*, City of Roma; *Vicki Ramirez*, City of San Juan; *Clarita Cardenas*, City of La Grulla; *Mayra Garza*, City of Edinburg; *Rita Salinas*, Mission Consolidated School District; and *Annette Villarreal*, City of McAllen

LEGAL OFFICE SPECIALST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

LGLA 1307 Introduction to Law and Legal Professions	3
POFI 2301 Word Processing	3
POFL 1305 Legal Terminology.....	3
POFT 1301 Business English	3
POFT 1329 Beginning Keyboarding.....	3

SECOND SEMESTER

POFI 2340 Advanced Word Processing.....	3
POFL 1303 Legal Office Procedures I	3
POFT 1319 Records and Information Management I	3
POFT 1328 Business and Professional Presentations.....	3
POFT 2312 Business Correspondence and Communication.....	3

SUMMER SESSION I

POFL 2301 Legal Document Processing.....	3
POFL 2264 CAPSTONE: Practicum	2

Total Credit Hours: 35

OFFICE SPECIALIST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

POFI 2301 Word Processing	3
POFT 1301 Business English	3
POFT 1309 Administrative Office Procedures I.....	3
POFT 1329 Beginning Keyboarding.....	3

SECOND SEMESTER

POFI 2340 Advanced Word Processing.....	3
POFT 1319 Records and Information Management I.....	3
POFT 1328 Business and Professional Presentations	3
POFT 1349 Administrative Office Procedures II.....	3
POFT 2312 Business Correspondence and Communication	3

SUMMER SESSION

POFI 1349 Spreadsheets.....	3
POFT 2264 CAPSTONE: Practicum	2

Total Credit Hours: 32

LEGAL OFFICE MANAGEMENT

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

LGLA 1307	Introduction to Law and Legal Professions	3
POFI 2301	Word Processing	3
POFL 1305	Legal Terminology	3
POFT 1301	Business English	3
POFT 1329	Beginning Keyboarding.....	3

SECOND SEMESTER

POFI 2340	Advanced Word Processing.....	3
POFL 1303	Legal Office Procedures I	3
POFT 1319	Records and Information Management I	3
POFT 1328	Business and Professional Presentations.....	3
POFT 2312	Business Correspondence & Communication	3

SUMMER SESSION I

POFL 2301	Legal Document Processing.....	3
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THIRD SEMESTER

POFL 1340	Legal Office Procedures II.....	3
POFL 1355	Legal Issues and Medical Records ..	3
POFL 1359	Legal Transcription	3
POFT 2331	Administrative Systems	3
SPCH 1321	Business & Professional Speaking....	3

FOURTH SEMESTER

ENGL 1301	Composition	3
	###Mathematics/Natural Sciences Elective.....	4
POFT 2303	Speed and Accuracy Building	3
PSYC 2301	General Psychology	3
SPAN 2313	Spanish for Spanish Speakers I or ARTS 1301.....	3

SUMMER SESSION II

POFL 2264	CAPSTONE: Practicum	2
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Total Credit Hours: 66

Identifies courses to meet academic, general education requirements, min. 15 Cr. Hrs.

OFFICE MANAGEMENT

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

POFI 2301	Word Processing.....	3
POFT 1301	Business English	3
POFT 1309	Administrative Office Procedures I..	3
POFT 1329	Beginning Keyboarding	3
PSYC 2301	General Psychology	3

SECOND SEMESTER

POFI 2340	Advanced Word Processing.....	3
POFT 1328	Business and Professional Presentations	3
POFT 1349	Administrative Office Procedures II ...	3
POFT 1319	Records and Information Management I	3
POFT 2312	Business Correspondence & Communication	3

SUMMER SESSION I

POFI 1349	Spreadsheets.....	3
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THIRD SEMESTER

ACNT 1303	Introduction to Accounting I	3
POFT 2331	Administrative Systems	3
SPAN 2313	Spanish for Spanish Speakers I or ARTS 1301.....	3
SPCH 1321	Business & Professional Speaking....	3

FOURTH SEMESTER

BMGT 1301	Supervision.....	3
ENGL 1301	Composition	3
POFT 2303	Speed and Accuracy Building	3
	###Mathematics/Natural Sciences Elective.....	4

SUMMER SESSION II

POFT 2264	CAPSTONE: Practicum	2
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Total Credit Hours:..... 60

Identifies courses to meet academic, general education requirements, min. 15 Cr. Hrs.

###Students must take a 4 credit hour course in order to fulfill the MATH / Natural Sciences Elective.

Automotive Technology

Automotive Technology Certificate and Associate of Applied Science

The Automotive Technology program is designed to prepare students for employment in the high technology automotive service industry. Students will gain knowledge in automotive air conditioning, electrical systems, fuel injection, transmissions and transaxles, engine performance, brake systems, steering and suspension systems, and computerized automotive control systems. Emphasis will be placed on hands-on learning in the labs to develop diagnostic and troubleshooting skills, as well as repair procedures. Graduates of the Automotive Technology program are typically placed in dealerships, independent garages and specialty automotive repair facilities. Courses taken for completion of the Certificate Program can be applied toward completion of the Associate of Applied Science Degree in Automotive Technology.

Ford Maintenance and Light Repair Certificate

Ford Certified Maintenance and Light Repair technicians know the skills required to perform regular maintenance, light repairs and parts installation on all types of Ford, Lincoln and Mercury automobiles and light trucks. Successful students in this program will achieve Ford Motor Company's Maintenance and Light Repair certification, which includes:

- Automotive Electrical System
- Automotive Brake Systems
- Automotive Heating and Air Conditioning
- Automotive Suspension and Steering

GM-ASEP (Automotive Service Educational Program)

Associate of Applied Science

What is GM ASEP? ASEP is an educational partnership between South Texas Community College and General Motors Corporation. It is a GM-specific program designed to upgrade the technical competency and professional level of the entry level GM dealership technician. The curriculum reflects current GM technology. ASEP provides classroom and laboratory training that is reinforced by on-the-job experience in a GM dealership. It is a comprehensive, two-year program

ADVISORY COMMITTEES

AUTOMOTIVE TECHNOLOGY

Carl Wiesban, Specialist, Hunter, *Jerry Angulo*, Sales Representative, Napa/Minyard Auto Supply, *Bill Seawell*, Factory Rep., Vetronix Sales Corp., *Jorge Longoria*, Asst. Service Manager, Charles Clark Chevrolet, *Armando Garza*, Auto Instructor, La Joya High School, *Rick Dube*, Owner, Dube Auto Parts & Service, *Daniel Moroles*, Area Manager, Car Quest Parts Center

GM-ASEP TECHNOLOGY

Pete Garza, Service Manager, Bert Odgen-Mission, *Chris Hatzold*, Service Manager, Bert Odgen-Edinburg, *Joe Ochoa*, Service Manager, Clark Chevrolet, *Carlos Yañez*, Service Manager, Kent Biel Buick GMC, *Jim Murer*, Service Manager, Roberts Chevrolet, *Pasqual Rodriguez*, Service Manager, Tipotex Chevrolet Brownsville, *Tommy Taylor*, Service Manager, Weslaco Motors, *Chris Cisneros*, Service Manager, Luke Fruia Brownsville

FORD-MLR TECHNOLOGY

Larry Emanuel, Service Manager, Boggus Ford, *Noe Guerra*, Service Mgr/Shop Foreman, Spikes Ford, *Rolando Garza*, Service Manager, Spikes Ford, *Doug Plank*, Shop Foreman, Payne Weslaco Ford, *Warren Barber*, Foreman/Technician, Hacienda Ford, *Tony Aguirre*, Service Manager, Mid-Valley Ford, *Baylor Vaughn*, Service Manager, Payne Weslaco Ford

AUTOMOTIVE TECHNOLOGY **CERTIFICATE**

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

AUMT 1305	Introduction to Automotive Technology.....	3
AUMT 1407	Automotive Electrical Systems....	4
AUMT 1416	Suspension & Steering	4
AUMT 1410	Automotive Brake Systems	4

SECOND SEMESTER

AUMT 1345	Automotive Heating and Air Conditioning	3
AUMT 1419	Automotive Engine Repair	4
AUMT 2417	Automotive Engine Performance Analysis I	4
TECM 1303	Technical Mathematics.....	3

THIRD SEMESTER

AUMT 2425	Automatic Transmission and Transaxle	4
AUMT 2313	Automotive Manual Drive Train and Axles	3
AUMT 2434	Automotive Engine Performance Analysis II	4
AUMT 1266	CAPSTONE: Practicum	2

Total Credit Hours: 42

FORD MAINTENANCE AND **LIGHT REPAIR**

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

AUMT 1305	Introduction to Automotive Technology.....	3
AUMT 1410	Automotive Brake Systems	4
AUMT 1416	Suspension & Steering	4
AUMT 1407	Automotive Electrical Systems ...	4

SECOND SEMESTER

TECM 1303	Technical Mathematics.....	3
AUMT 1345	Automotive Heating and Air Conditioning	3
AUMT 2417	Engine Performance Analysis I....	4
AUMT 2421	Automotive Electrical Lighting and Accessories.....	4
CSIR 1355	Industry Certification	3

THIRD SEMESTER

AUMT 2366	Practicum I-Ford MLR.....	3
AUMT 2367	CAPSTONE: Practicum II-Ford MLR.....	3

Total Credit Hours: 38

AUTOMOTIVE TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

AUMT 1305	Introduction to Automotive Technology.....	3
AUMT 1407	Automotive Electrical Systems....	4
AUMT 1410	Automotive Brake Systems	4
AUMT 1416	Suspension & Steering	4
<u>SPCH 1311</u>	<u>Introduction to Speech Communication</u>	3

SECOND SEMESTER

AUMT 1345	Automotive Heating & Air Conditioning	3
AUMT 1419	Automotive Engine Repair	4
AUMT 2417	Automotive Engine Performance Analysis I.....	4
TECM 1303	Technical Mathematics.....	3

SUMMER SESSION

<u>ENGL 1301</u>	<u>Composition</u>	3
	<u>Humanities Elective</u>	3

THIRD SEMESTER

AUMT 2313	Automotive Drive Train & Axles ..	3
AUMT 2425	Automotive Automatic Transmission & Transaxle	4
AUMT 2434	Automotive Engine Performance Analysis II	4
<u>PSYC 2301</u>	<u>General Psychology</u>	3

FOURTH SEMESTER

CSIR 1355	Industry Certifications.....	3
AUMT 2301	Automotive Management.....	3
AUMT 2421	Automotive Electrical Lighting and Accessories.....	4
<u>PHYS 1415</u>	<u>Physical Science I</u>	4
AUMT 1266	CAPSTONE: Practicum I.....	2

Total Credit Hours: 68

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Automotive Technology

SPECIALIZATION:

GM-ASEP (AUTOMOTIVE SERVICE EDUCATIONAL PROGRAM)

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

AUMT 1305	Introduction to Automotive Technology	3
AUMT 1407	Automotive Electrical Systems....	4
TECM 1303	Technical Mathematics.....	3
<u>SPCH 1311</u>	<u>Introduction to Speech Communication</u>	3

SECOND SEMESTER

AUMT 1345	Automotive Heating & Air Conditioning	3
AUMT 1419	Automotive Engine Repair	4
	<u>Humanities Elective</u>	3
AUMT 1266	Practicum I.....	2

SUMMER SESSION I

AUMT 2417	Automotive Engine Performance Analysis I	4
AUMT 2421	Automotive Electrical Lighting and Accessories.....	4
<u>PSYC 2301</u>	<u>General Psychology</u>	3
AUMT 1267	Practicum II.....	2

THIRD SEMESTER

CSIR 1355	Industry Certifications.....	3
AUMT 2313	Automotive Drive Train & Axles ..	3
AUMT 2425	Automotive Automatic Transmission & Transaxle	4
AUMT 2266	Practicum III.....	2

FOURTH SEMESTER

AUMT 1410	Automotive Brake Systems	4
<u>PHYS 1415</u>	<u>Physical Science I</u>	4
<u>ENGL 1301</u>	<u>Composition</u>	3
AUMT 2267	CAPSTONE: Practicum IV.....	2

SUMMER SESSION II

AUMT 1416	Suspension & Steering	4
AUMT 2434	Automotive Engine Performance Analysis II	4

Total Credit Hours: 71

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Biology

Biology, Field of Study

Associate of Science

The Associate of Science Degree with a field of study in Biology offers students the opportunity to take a core curriculum of general education courses with an emphasis in Biology. Many exciting career opportunities are available in the biological sciences. Students should bear in mind that many of the career areas listed require training beyond the Associate of Science degree and some will require a post-graduate degree.

- Agriculture
- Biotechnology
- Dentistry
- Dietary Research
- Environmental Science
- Genetic Engineering
- Health Sciences
- Marine Science
- Medicine
- Medical Research
- Microbiological Research
- Pharmacology
- Physical Therapy
- Science Education
- Toxicology
- Veterinary Science
- Wildlife Biology

BIOLOGY *Field of Study*

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY

15-17 Credits minimum

The student is required to take the following two courses (8 credit hours):

- *BIOL 1408 General Biology I
- *BIOL 1409 General Biology II

The student is required to take a minimum of 7 credit hours from the following list of courses:

- *BIOL 1411 General Botany
- *BIOL 1413 General Zoology
- *BIOL 2306 Environmental Biology
- *BIOL 2389 Academic Cooperative in the Biological Life Sciences
- *BIOL 2401 Anatomy & Physiology I
- *BIOL 2402 Anatomy & Physiology II
- *BIOL 2416 Genetics
- *BIOL 2421 Microbiology
- *BIOL 2428 Comparative Vertebrate Anatomy

STC CORE CURRICULUM 45 Credits

In addition to the courses in the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 of the catalog.

Biology majors must take CHEM 1411 - General Chemistry I and CHEM 1412 - General Chemistry II in order to satisfy the Natural Sciences requirements of the core curriculum.

Field of Study: 15-17

STC Core Curriculum: 45

Total Credit Hours: 60-62

Biology

Recommended Course Sequence

FIRST SEMESTER **Credit Hours**

ENGL 1301	Composition	3
MATH 1414	College Algebra or MATH 2412 or MATH 2413	4
BIOL 1408	General Biology I	4
CHEM 1411	General Chemistry I	4

SECOND SEMESTER

ENGL 1302	Composition II - Rhetoric	3
COSC 1301	Microcomputer Applications	3
BIOL 1409	General Biology II	4
CHEM 1412	General Chemistry II	4
SPCH 1311	Introduction to Speech Communication or SPCH 1315 or SPCH 1318 or SPCH 1321	3

THIRD SEMESTER

HIST 1301	United States History I or HIST 2327	3
GOVT 2301	American Government I	3
	Visual & Performing Arts Elective- Core Curriculum	3
	Social & Behavioral Science Elective - Core Curriculum	3
	*Biology Elective - Field of Study	4

FOURTH SEMESTER

HIST 1302	United States History II or HIST 2328	3
GOVT 2302	American Government II	3
	Humanities Elective - Core Curriculum	3
	*Biology Elective - Field of Study	3 or 4

*Course to be chosen from Field of Study

Business Administration

Accounting Clerk Certificate

This program is designed to prepare students for an entry-level position in the field of Accounting. Graduates of this program will have the skills, knowledge, and abilities to perform general accounting duties.

Banking Certificate

The Banking Certificate is designed to prepare students in the field of financial services industry. Graduates of this program will have the basic knowledge to perform general banking duties.

Import/Export Certificate

The Import/Export certificate prepares students for an entry-level position with import/export businesses such as custom brokers, freight forwarders, commercial carriers, and international businesses. The graduates of this program will have the basic knowledge to take the custom broker exam.

Logistics Certificate

The Logistics Management Certificate prepares students for entry-level positions in the growing field of warehousing/logistics. The graduates of this program will have the basic knowledge to perform general support services in warehousing/logistics operations.

Management Certificate

This program will prepare students for an entry-level position in the private or public sector. Graduates of this program will have the skills, knowledge, and abilities to perform general managerial duties.

Marketing Certificate

This program will prepare students for an entry-level position in the field of marketing and sales. Graduates of this program will have the skills, knowledge, and abilities to perform general marketing duties.

Specialization: Accounting Associate of Applied Science

This program will prepare students for entry into the accounting profession. The two-year program emphasizes internal accounting procedures and generally accepted principles as they apply to external reporting.

Specialization: Banking Associate of Applied Science

This program will prepare students for entry into the financial services industry. It is designed to offer continuing professional education for individuals already employed in the financial services industry.

Specialization: Import/Export/Logistics Associate of Applied Science

This program will prepare students for entry into the import/export/logistics profession. It is designed to update and expand the skills of those already working in the field, as well as assist those individuals who are considering the import/export/logistics field as a profession. The graduates of this program will have the basic knowledge to take the custom broker exam.

Specialization: Management Associate of Applied Science

This program will prepare students for various managerial positions such as entry-level management trainee. The program will prepare students in areas such as communication skills, accounting, human resource management, marketing, problem solving and decision-making.

Specialization: Management for the Bachelor of Applied Technology Degree Associate of Applied Science

This program will prepare students for a various entry level managerial positions. The program will prepare students in areas such as communication skills, accounting, human resource management, marketing, problem solving and decision-making.

Specialization: Marketing Associate of Applied Science

This program will prepare students for an entry level position in marketing and sales. The program will prepare students in areas such as communication skills, sales, product design, advertisement, and public relations.

Business Administration (Transfer Plan) Field of Study Associate of Arts

This degree designed for those students who plan to transfer to a four-year college or university to earn a Bachelor of Business Administration, a Bachelor of Arts, or a Bachelor of Science Degree. Students take classes to complete state general education requirements and a combination of business classes in accounting, computers, and economics which fulfill the Associate of Art Degree in Business Administration. Upon transferring to a four-year college or university, students may choose a concentration in Accounting, Economics, General Business, Finance, International Business, Information Systems, Management, or Marketing.

ADVISORY COMMITTEES

ACCOUNTING

David Carrales, Chair, Carrales & Company, LLP; *Dr. Wig De Merville*, UTPA College of Business; *Virginia Garza*, McAllen Housing Authority; *Rumalda Torres*, McAllen ISD; *Guillermo Garza*, Garza & Morales; *Rey Jaquez*, McAllen Affordable Homes; *Juan Carlos Velez*, Juan C. Velez, CPA

BANKING

Craig Lewis, Chair, Texas State Bank; *Robert Almendarez*, Texas State Bank; *Roy Cantu*, International Bank of Commerce; *Arden Peterson*, First National Bank; *Jose Rangel*, First National Bank; *Elena Gonzalez*, International Bank of Commerce/ First Data

IMPORT / EXPORT / LOGISTICS

Mark Garcia, Chair, McAllen Economic Development Corp.; *Ruben Garza*, Daniel B. Hastings Inc.; *Matilde Gutierrez*, Vanity Fair Intimates, Inc.; *Randy O. Main*, Dulces Famosos de Mexico/Famous Candy, Ltd.; *Dianne Vlasik*, US Customs & Border Protection; *Sylvia Garces Soria*, Socios En Ekcelencia; *Jose A. Andrade*, RGCX Rio Grande Chemical, Ltd.

MANAGEMENT

Alida Hernandez, AAA Personal Agency Inc.; *Ana Escobar*, Copy Graphics Inc.; *Irene Morin*, Sharyland School District; *Victor Huerta*, University of Texas-Pan American; *Joe Vasquez*, KNAPP Medical Center; *Perla Zamora Lara*, City of McAllen

MARKETING

Juan Duran, Verizon Wireless; *Grace Rodriguez*, GAP Store; *Dee Silva*, GAP Store; *Rita Harrison Torres*, Office Depot; *Marc Fantich*, The Fantich Media Group; *Isabel Torres*, Sears Roebuck; *Melanie Meyers*, QuikDrop

ACCOUNTING CLERK

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
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ACNT 1303 Introduction to Accounting I.....	3
ITSC 1409 Integrated Software Applications I or COSC 1301.....	4
BUSI 1301 Business Principles	3
ENGL 1312 Business Writing	3
BNKG 1340 Money and Banking	3

SECOND SEMESTER

ACNT 1304 Introduction to Accounting II or ACCT 2401	3
ACNT 1311 Introduction to Computerized Accounting.....	3
ACNT 1329 Payroll & Business Tax Accounting	3
BMGT 1301 Supervision	3

THIRD SEMESTER

BMGT 2168 CAPSTONE: Business Administration Practicum.....	1
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Total Credit Hours: 29

BANKING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
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ACNT 1303 Introduction to Accounting I.....	3
ITSC 1409 Integrated Software Applications I or COSC 1301	4
BUSI 1301 Business Principles	3
BNKG 1340 Money and Banking	3
BNKG 1303 Principles of Bank Operation.....	3

SECOND SEMESTER

BMGT 1391 Business Conduct	3
BMGT 1305 Communication in Management	3
ENGL 1312 Business Writing	3
BNKG 1347 Bank Marketing.....	3
BMGT 2168 CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours: 29

IMPORT/EXPORT

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
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ACNT 1303	Introduction to Accounting I.....3
ITSC 1409	Integrated Software Applications I or COSC 1301.....4
BMGT 1391	Business Conduct .....3
IBUS 1301	Principles of Exports.....3

SECOND SEMESTER

BMGT 1305	Communications in Management .....3
BNKG 1340	Money and Banking.....3
IBUS 1305	Introduction to International Business/Trade .....3
IBUS 2345	Import Customs Regulations I....3

THIRD SEMESTER

IBUS 2371	Import Customs Regulations II...3
BMGT 2168	CAPSTONE: Business Administration Practicum.....1

Total Credit Hours: 29

LOGISTICS

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
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ACNT 1303	Introduction to Accounting I.....3
ITSC 1409	Integrated Software Applications I or COSC 1301.....4
BMGT 1391	Business Conduct .....3
LMGT 1319	Introduction to Business Logistics .....3

SECOND SEMESTER

BNKG 1340	Money and Banking.....3
BMGT 1305	Communications in Management .....3
LMGT 1321	Principles of Material Management.....3
LMGT 1325	Warehouse and Distribution Center Management.....3

SUMMER SESSION

BMGT 2168	CAPSTONE: Business Administration Practicum.....1
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Total Credit Hours: 26

MANAGEMENT

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

ACNT 1303	Introduction to Accounting I	.....3
ITSC 1409	Integrated Software Applications I or COSC 1301	.....4
BUSI 1301	Business Principles	.....3
BMGT 1301	Supervision	.....3
BMGT 1391	Business Conduct	.....3

SECOND SEMESTER

POFI 2301	Word Processing	.....3
BMGT 1305	Communications in Management	.....3
ACNT 1329	Payroll & Business Tax Accounting	.....3
HRPO 2301	Human Resources Management	.....3
BUSG 2309	Small Business Management	.....3
BMGT 2168	CAPSTONE: Business Administration Practicum	.....1

Total Credit Hours: 32

MARKETING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

ACNT 1303	Introduction to Accounting I	.....3
ITSC 1409	Integrated Software Applications I or COSC 1301	.....4
BMGT 1301	Supervision	.....3
BMGT 1391	Business Conduct	.....3
MRKG 1311	Principles of Marketing	.....3

SECOND SEMESTER

BUSI 1301	Business Principles	.....3
BMGT 1305	Communications in Management	.....3
MRKG 1301	Customer Service	.....3
POFI 2431	Desktop Publishing for the Office	.....4
BMGT 2168	CAPSTONE: Business Administration Practicum	.....1

Total Credit Hours: 30

Business Administration

Specialization: ACCOUNTING
ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>ENGL 1301</u> <u>Composition</u>	3
BNKG 1340 Money and Banking.....	3
ACNT 1303 Introduction to Accounting I.....	3
ITSC 1409 Integrated Software Applications I or COSC 1301.....	4
BMGT 1301 Supervision	3
BMGT 1391 Business Conduct	3

SECOND SEMESTER

BMGT 1305 Communications in Management....	3
ACCT 2401 Principles of Financial Accounting...	4
ACNT 1329 Payroll & Business Tax Accounting..	3
ACNT 1311 Introduction to Computerized Accounting	3
<u>SPCH 1321</u> <u>Business & Professional Speaking</u>	3

THIRD SEMESTER

<u>Humanities Elective</u>	3
BUSI 1301 Business Principles	3
<u>Mathematics/Natural Sciences</u> <u>Elective</u>	4
ACCT 2402 Principles of Managerial Accounting	4

FOURTH SEMESTER

ACNT 2309 Cost Accounting.....	3
###Accounting Elective	3
ACNT 2330 Government & Not-for-Profit Accounting	3
<u>ECON 2301</u> <u>Principles of Economics I-Macro</u> ..	3
BUSI 2301 Business Law	3
BMGT 2168 CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours:..... 65

###ACCOUNTING ELECTIVES

ACNT 1331 Federal Income Tax: Individual..	3
ACNT 2331 Internal Control and Auditing....	3

Identifies courses to fulfill minimum 15 hour General
Education Requirement

Business Administration

Specialization: BANKING
ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>ENGL 1301</u> <u>Composition</u>	3
ITSC 1409 Integrated Software Applications I or COSC 1301.....	4
BMGT 1301 Supervision	3
BMGT 1391 Business Conduct	3
BNKG 1340 Money & Banking	3
BNKG 1303 Principles of Bank Operation.....	3

SECOND SEMESTER

SPCH 1321 Business & Professional Speaking....	3
ACNT 1303 Introduction to Accounting I.....	3
BUSI 1301 Business Principles	3
BMGT 1305 Communications in Management....	3
BNKG 1343 Law & Banking or BUSI 2301	3
BNKG 1347 Bank Marketing.....	3

THIRD SEMESTER

<u>Social/Behavioral Sciences Elective</u> ..	3
MRKG 1301 Customer Service.....	3
<u>Mathematics/Natural Sciences</u> <u>Elective</u>	4
BNKG 1345 Consumer Lending	3
BUSG 1303 Principles of Finance	3

FOURTH SEMESTER

<u>Humanities Elective</u>	3
<u>ECON 2301</u> <u>Principles of Economics I-Macro</u> ..	3
BNKG 1349 Commercial Lending	3
BNKG 1356 Analyzing Financial Statements..	3
BMGT 2168 CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours:..... 66

Identifies courses to fulfill minimum 15 hour General
Education Requirement

Business Administration

Specialization: IMPORT/EXPORT/ LOGISTICS

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

ENGL 1301	Composition	3
ITSC 1409	Integrated Software Applications I or COSC 1301.....	4
IBUS 1301	Principles of Exports	3
IBUS 1305	Introduction to International Business/Trade	3
BMGT1301	Supervision	3

SECOND SEMESTER

ACNT 1303	Introduction to Accounting I	3
BNKG 1340	Money and Banking	3
BMGT 1305	Communications in Management	3
BMGT 1391	Business Conduct	3
LMGT 1319	Introduction to Business Logistics	3

THIRD SEMESTER

	Import/Export/Logistics Elective***	3
MATH 1332	Contemporary Mathematics	3
BUSI 2301	Business Law	3
SPCH 1321	Business & Professional Speaking	3
MRKG 1301	Customer Service.....	3

FOURTH SEMESTER

	Import/Export/Logistics Elective***	3
ECON 2301	Principles of Economics I-Macro.....	3
	Social/Behavioral Sciences Elective	3
	Humanities Elective.....	3
BMGT 1309	Information and Project Management	3
BMGT 2168	CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours: 62

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

*****Import/Export/Logistics Elective Options**

IBUS 2345	Import Customs Regulations I....	3
IBUS 2371	Import Customs Regulations II...	3
LMGT 1321	Principles of Material Management ..	3
LMGT 1325	Warehouse and Distribution Center Management	3

Business Administration

Specialization: MANAGEMENT **ASSOCIATE OF APPLIED SCIENCE**

TSI LIABLE

FIRST SEMESTER **Credit Hours**

ENGL 1301	Composition	3
ITSC 1409	Integrated Software Applications I or COSC 1301.....	4
BUSI 1301	Business Principles	3
BMGT 1301	Supervision.....	3
BMGT 1391	Business Conduct	3

SECOND SEMESTER

SPCH 1321	Business & Professional Speaking3	
POFI 2301	Word Processing	3
ACNT 1303	Introduction to Accounting I.....	3
BMGT 1305	Communications in Management3	
HRPO 2301	Human Resources Management.3	
BNKG 1340	Money and Banking	3

THIRD SEMESTER

MRKG 1301	Customer Service.....	3
	Math/Natural Sciences Elective	4
BUSI 2301	Business Law	3
ACNT 1329	Payroll & Business Tax Accounting..	3
BUSG 2309	Small Business Management.....	3

FOURTH SEMESTER

	Humanities Elective.....	3
	Social/Behavioral Sciences Elective	3
BMGT 2303	Problem Solving & Decision Making	3
ECON 2301	Principles of Economics I-Macro ..	3
MRKG 1311	Principles of Marketing.....	3
BMGT 2168	CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours: 66

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Business Administration

Specialization: MARKETING

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>ENGL 1301</u> Composition	3
ITSC 1409 Integrated Software Applications I	
COSC 1301	4
BMGT 1301 Supervision.....	3
BMGT 1391 Business Conduct	3
MRKG 1311 Principles of Marketing.....	3

SECOND SEMESTER

ACNT 1303 Introduction to Accounting I	3
SPCH 1321 Business and Professional Speaking.....	3
BMGT 1305 Communications in Management	3
BNKG 1340 Money and Banking	3
MRKG 1301 Customer Service.....	3
MRKG 2333 Principles of Selling	3

THIRD SEMESTER

BUSI 1301 Business Principles	3
<u>Math/Natural Sciences Elective</u> ...	4
MRKG2349 Advertising and Sales Promotion	3
BUSG 2309 Small Business Management.....	3

FOURTH SEMESTER

POFI 2431 Desktop Publishing for the Office.....	4
<u>Humanities Elective</u>	3
<u>Social/Behavioral Sciences Elective</u>	3
MRKG 1313 Public Relations.....	3
<u>ECON 2301</u> Principles of Economics I-Macro....	3
BMGT 2168 CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours: 64

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Business Administration

Specialization:

TECHNOLOGY MANAGEMENT

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>ENGL 1301</u> Composition	3
COSC 1301 Microcomputer Applications	3
BUSI 1301 Business Principles	3
BMGT 1301 Supervision	3
<u>Humanities Elective</u>	3

SECOND SEMESTER

SPCH 1321 Business & Professional Speaking.....	3
ACCT 2401 Principles of Financial Accounting ...	4
BMGT 1305 Communications in Management	3
HRPO 2301 Human Resources Management..	3
<u>ECON 2301</u> Principles of Economics I-Macro ..	3

THIRD SEMESTER

POFI 2301 Word Processing.....	3
<u>MATH 1414</u> College Algebra.....	4
BUSI 2301 Business Law	3
ACCT 2402 Principles of Managerial Accounting	4
BUSG 2309 Small Business Management.....	3

FOURTH SEMESTER

MATH 1442 Statistics.....	4
MRKG 1311 Principles of Marketing.....	3
BMGT 2303 Problem Solving and Decision Making	3
ACNT 2309 Cost Accounting.....	3
<u>Social/Behavioral Sciences Elective</u>	3
ECON 2302 Principles of Economics II-Micro...3	
BMGT 2168 CAPSTONE: Business Administration Practicum.....	1

Total Credit Hours: 68

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

BUSINESS ADMINISTRATION
(TRANSFER PLAN) Field of Study
ASSOCIATE OF ARTS

TSI LIABLE

FIELD OF STUDY 18 Credits

- ACCT 2401 Principles of Financial Accounting
- ACCT 2402 Principles of Managerial Accounting
- ECON 2302 Principles of Economics II-MICRO
- BUSI 1301 Business Principles
- MATH 1425 Business Calculus

STC CORE CURRICULUM 45 Credits

In addition to the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 in the catalog. **Business Administration majors must take ECON 2301 - Principles of Economics I-Macro to fulfill to Social/Behavioral Science component of the Core Curriculum.**

Field of Study: 18
 STC Core Curriculum: 45
Total Credit Hours: 63

Business Administration -
Transfer Plan
Recommended Course Sequence

FIRST SEMESTER Credit Hours

- SPCH 1311 Intro. to Speech Communication or SPCH 1315 or SPCH 1318 or SPCH 1321.....3
- HIST 1301 United States History I or HIST 2327.....3
- ENGL 1301 Composition3
- COSC 1301 Microcomputer Applications3
- BUSI 1301 Business Principles3

SECOND SEMESTER

- HIST 1302 United States History II or HIST 2328.....3
- ENGL 1302 Composition II - Rhetoric3
 Visual & Performing Arts.
 Elective-Core Curriculum3
- MATH 1414 College Algebra or MATH 2412 or MATH 2413.....4
- ACCT 2401 Principles of Financial Accounting ...4

THIRD SEMESTER

- GOVT 2301 American Government I.....3
 Natural Sciences Elective -
 Core Curriculum.....4
- ACCT 2402 Principles of Managerial Accounting4
- ECON 2301 Principles of Economics I-MACRO ...3

FOURTH SEMESTER

- GOVT 2302 American Government II3
 Natural Sciences Elective -
 Core Curriculum4
- ECON 2302 Principles of Economics II-MICRO.....3
- MATH 1425 Business Calculus4
 Humanities Elective -
 Core Curriculum.....3

Business Computer Systems

Technology Support Specialist Certificate

In this program, the student will learn business applications including spreadsheets, word processing and database. The student will also receive technical training in networking technologies and operating systems as well as server administration. At the end of this program, the student will be required to complete a Capstone course which will allow the student to acquire industry experience. This Certificate will allow the student to transfer the credits to the Associate of Applied Science degree for Networking Specialist or Computer Specialist.

Specialization: Computer Specialist Associate of Applied Science

In this program, the student will learn business applications and demonstrate fluency in database, spreadsheets, word processing, and desktop publishing. Students will learn technical skills such as operating systems data structure, networking, telecommunications, and microcomputer concepts. Students will also learn management skills such as system management, database design techniques, logic, speech, and technical writing. Graduates will be equipped for entry into the workforce in small business, school districts, local companies, and hospital departments.

Specialization: Information Security Specialist Associate of Applied Science

This specialization will prepare students for a career in information systems security. It will prepare students to be certified by Cisco, System Administration, Networking and Security) Institute (SANS), or Computer Emergency Response Team (CERT) as an information security technician or manager.

Specialization: Multimedia Specialist Associate of Applied Science

Graduates of this emerging occupation will have the technical knowledge, skills, and preparation to combine the use of audio, video, graphics, and text to provide and disseminate information to others in an aesthetic manner. Often, their final output is distributed on CD ROM's as catalogs, training sessions, books on disk, and tutorials. By combining graphics, audio files, animation, and video components, the product of multimedia specialists can often make stronger impacts than printed guides or tutorials.

Specialization: Networking Specialist Associate of Applied Science

In this program, the student will learn the same basic information as the Computer Specialist, but will receive additional courses in networking. Upon completion of the program, the student will be able to design and quote a network, set up and maintain, and manage and upgrade the network. Employment opportunities will be available with businesses that use or anticipate setting up a network.

Specialization: Webmaster Specialist Associate of Applied Science

Graduates of this program will have the technical knowledge, skills, and preparation for employment in the growing field of computer graphic design, animation and multimedia to prepare web pages for individual clients or as part of an electronic commerce division of a company. Program emphasis is on programming scripts and graphics using Internet-specific code such as hypertext markup language, Perl, or Java, and Web page maintenance. Future career positions include Computer Programmer, Graphic Designer, Web Page Designer and Electronic Publishing Support Specialist.

ADVISORY COMMITTEE

Diana Berger, Director of Education Market Segment, Global Data Systems; *David Hales*, Technology Support Specialist, Region One Education Service Center; *David Winkler*, Owner, Empire Technology Computers; *Jeff Shooshtari*, Owner, CEO, Twin Wireless; *Maby Arleth Rosenbaum*, LAN/WAN Engineer, Technology Resources, South Texas College; *Tomas Perez*, MIS Director, Mission CISD; *Reynaldo Robles*, Sr. Programmer Analyst, Student Information Systems, UT-Pan American

**TECHNOLOGY SUPPORT
SPECIALIST**

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER		Credit Hours
ITSC 1409	Integrated Software Applications I...	4
ITSC 1405	Introduction to PC Operating Systems	4
ITNW 1425	Fundamentals of Networking Technologies.....	4
ITSC 1407	UNIX Operating System I.....	4

SECOND SEMESTER		
ITSC 1425	Personal Computer Hardware	4
ITNW 2421	Networking with TCP/IP.....	4
ITNW 2401	Administering Servers	4
ITSW 1410	Intro. to Presentation Graphics Software.....	4

THIRD SEMESTER		
POFI 2431	Desktop Publishing for the Office.....	4
ITSE 2409	Database Programming	4
ITSC 1165	CAPSTONE: Technology Support Practicum..	1

Total Credit Hours: 41

Business Computer Systems

Specialization:

COMPUTER SPECIALIST

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

SPCH 1311 Introduction to Speech Communication3

ITSC 1409 Integrated Software Applications I...4

ITSC 1405 Introduction to PC Operating Systems4

ITNW 1425 Fundamentals of Networking Technologies.....4

SECOND SEMESTER

ITSC 1425 Personal Computer Hardware4

ITNW 2421 Networking with TCP/IP.....4

ITNW 2401 Administering Servers4

ITSW 2434 Advanced Spreadsheets4

SUMMER SESSION I

Humanities Elective.....3

Social/Behavioral Sciences Elective.....3

THIRD SEMESTER

ITSE 1411 Beginning Web Page Programming4

ITNW 2435 Network Troubleshooting and Support4

ITSW 1410 Introduction to Presentation Graphics Software.....4

ITSE 1431 Introduction to Visual Basic Programming4

FOURTH SEMESTER

ENGL 1301 Composition3

MATH 1332 Contemporary Mathematics or MATH 1414.....3

ITSE 2409 Database Programming4

ITSC 2439 Personal Computer Help Desk...4

ITSC 2165 CAPSTONE: Systems Administration Practicum.....1

Total Credit Hours: 68

Identifies courses to fulfill minimum 15 hour General Education Requirement

Social/Behavioral Sciences Electives

SOCI 1301 Introductory Sociology.....3

SOCI 1306 Contemporary Social Problems...3

PSYC 2301 General Psychology3

Humanities Elective

Literature

ENGL 2341 Introduction to Literature.....3

ENGL 2321 British Literature.....3

ENGL 2326 American Literature3

ENGL 2331 World Literature.....3

Drama

DRAM 1310 Drama Appreciation3

Art

ARTS 1301 Art Appreciation.....3

ARTS 1303 Art History I.....3

ARTS 1304 Art History II3

Business Computer Systems

Specialization: INFORMATION

SECURITY SPECIALIST

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

ITSC 1409	Integrated Software Applications I...	4
ITSC 1405	Introduction to PC Operating Systems.....	4
ITSC 1407	UNIX Operating Systems I	4
ITNW 1425	Fundamentals of Networking Technologies.....	4

SECOND SEMESTER

SPCH 1311	Introduction to Speech Communication	3
ITSY 1400	Fundamentals of Information Security.....	4
ITNW 2421	Networking with TCP/IP.....	4
ITNW 2401	Administering Servers	4

SUMMER SESSION I

<u>Social/Behavioral Sciences</u>	
<u>Elective</u>	3
<u>Humanities Elective</u>	3

THIRD SEMESTER

ITSY 2443	Computer System Forensics	4
ITSY 2441	Security Management Practices..	4
ITNW 1454	Implementing and Supporting Servers	4
ITNW 2409	Network Administration for Intranet.....	4

FOURTH SEMESTER

ENGL 1301	Composition	3
MATH 1332	Contemporary Mathematics or MATH 1414.....	3
ITSY 2401	Firewalls and Network Security..	4
ITSC 2346	Computer Center Management..	3
ITSC 1164	CAPSTONE: Information Security Practicum.....	1

Total Credit Hours:..... 67

Identifies courses to fulfill minimum 15 hour General Education Requirement

Social/Behavioral Sciences Electives

SOCI 1301	Introductory Sociology.....	3
SOCI 1306	Contemporary Social Problems..	3
PSYC 2301	General Psychology	3

Humanities Electives

Literature

ENGL 2341	Introduction to Literature	3
ENGL 2321	British Literature	3
ENGL 2326	American Literature	3
ENGL 2331	World Literature.....	3

Drama

DRAM 1310	Drama Appreciation	3
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Art

ARTS 1301	Art Appreciation.....	3
ARTS 1303	Art History I.....	3
ARTS 1304	Art History II	3

Business Computer Systems

Specialization:

MULTIMEDIA SPECIALIST

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

SPCH 1311	Introduction to Speech Communication	3
ENGL 1301	Composition	3
ITSC 1409	Integrated Software Applications I...	4
ITSE 1402	Computer Programming	4

SECOND SEMESTER

ITSW 1410	Introduction to Presentation Graphics Software.....	4
ARTC 1413	Digital Publishing I	4
ARTV 1445	3-D Modeling and Rendering.....	4
ITSE 1411	Beginning Web Page Programming	4

SUMMER SESSION I

	<u>Social / Behavioral Sciences</u> <u>Elective</u>	3
ARTS 1316	Drawing I.....	3

THIRD SEMESTER

ITSE 1431	Introduction to Visual Basic Programming	4
FLMC 2431	Computers in Video Production II	4
IMED 1445	Interactive Multimedia I.....	4
ITSE 2409	Database Programming	4

FOURTH SEMESTER

MATH 1332	Contemporary Mathematics or MATH 1414.....	3
	Humanities Elective.....	3
ITSE 2402	Intermediate Web Programming	4
IMED 2405	Multimedia Courseware Development II.....	4
IMED 2166	Capstone: Multimedia Practicum I	

Total Credit Hours: 67

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Social/Behavioral Sciences Electives

SOCI 1301	Introductory Sociology.....	3
SOCI 1306	Contemporary Social Problems..	3
PSYC 2301	General Psychology	3

Humanities Elective

Literature

ENGL 2341	Introduction to Literature	3
ENGL 2321	British Literature	3
ENGL 2326	American Literature	3
ENGL 2331	World Literature.....	3

Drama

DRAM 1310	Drama Appreciation	3
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Art

ARTS 1301	Art Appreciation.....	3
ARTS 1303	Art History I.....	3
ARTS 1304	Art History II	3

Business Computer Systems

Specialization:

NETWORKING SPECIALIST

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER Credit Hours

ITSC 1409	Integrated Software Applications I...	4
ITSC 1405	Introduction to PC Operating Systems.....	4
ITSC 1407	UNIX Operating Systems I	4
ITNW 1425	Fundamentals of Networking Technologies.....	4

SECOND SEMESTER

SPCH 1311	Introduction to Speech Communication	3
ITNW 2421	Networking with TCP/IP.....	4
ITNW 2401	Administering Servers	4
ITSW 2434	Advanced Spreadsheets	4

SUMMER SESSION I

Humanities Elective.....	3
Social/Behavioral Sciences	
Elective	3

THIRD SEMESTER

ITSE 1411	Beginning Web Page Programming	4
ITNW 2435	Network Troubleshooting and Support	4
ITSY 1400	Fundamentals of Information Security.....	4
ITSY 1442	Information Technology Security	4

FOURTH SEMESTER

ENGL 1301	Composition	3
MATH 1332	Contemporary Mathematics or Math 1414	3
ITNW 2406	Advanced Network Administration for Intra-Network.....	4
ITSC 2346	Computer Center Management..	3
ITNW 2164	CAPSTONE: Network Practicum.	1

Total Credit Hours: 67

Identifies courses to fulfill minimum 15 hour General Education Requirement

Social/Behavioral Sciences Electives

SOCI 1301	Introductory Sociology.....	3
SOCI 1306	Contemporary Social Problems ..	3
PSYC 2301	General Psychology	3

Humanities Electives

Literature

ENGL 2341	Introduction to Literature	3
ENGL 2321	British Literature	3
ENGL 2326	American Literature	3
ENGL 2331	World Literature.....	3

Drama

DRAM 1310	Drama Appreciation	3
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Art

ARTS 1301	Art Appreciation.....	3
ARTS 1303	Art History I.....	3
ARTS 1304	Art History II	3

Business Computer Systems

Specialization:

WEBMASTER SPECIALIST

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER Credit Hours

ITSC 1409	Integrated Software Applications I...	4
ITSC 1405	Introduction to PC Operating Systems	4
ITSC 1407	UNIX Operating System I.....	4
ITNW 1425	Fundamentals of Networking Technologies.....	4

SECOND SEMESTER

SPCH 1311	Introduction to Speech Communication	3
ITNW 2421	Networking with TCP/IP.....	4
ITNW 2401	Administering Servers	4
ITSE 1411	Beginning Web Page Programming	4

SUMMER SESSION I

ITSE 2409	Database Programming	4
	Humanities Elective.....	3

SUMMER SESSION II

	Social/Behavioral Sciences	
	Elective	3

THIRD SEMESTER

MRKG 1311	Principles of Marketing.....	3
ITSE 2447	Advanced Database Programming ...	4
ITSY 1442	Information Technology Security	4
ITSE 1402	Computer Programming	4

FOURTH SEMESTER

MATH 1332	Contemporary Mathematics or MATH 1414.....	3
ENGL 1301	Composition	3
ITSE 2402	Intermediate Web Programming	4
ITSE 2286	Internship-Computer Programming ...	2

Total Credit Hours: 68

Identifies courses to fulfill minimum 15 hour General Education Requirement

Social/Behavioral Sciences Electives

SOCI 1301	Introductory Sociology.....	3
SOCI 1306	Contemporary Social Problems ..	3
PSYC 2301	General Psychology	3

Humanities Elective

Literature

ENGL 2341	Introduction to Literature.....	3
ENGL 2321	British Literature	3
ENGL 2326	American Literature	3
ENGL 2331	World Literature.....	3

Drama

DRAM 1310	Drama Appreciation	3
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Art

ARTS 1301	Art Appreciation.....	3
ARTS 1303	Art History I.....	3
ARTS 1304	Art History II	3

Chemistry

Chemistry, Field of Study

Associate of Science

The Associate of Science degree with a field of study in Chemistry offers students the opportunity to take a core curriculum of general education with an emphasis in Chemistry. Chemistry students have a wide choice of careers in many different scientific and technical fields.

The student should bear in mind that many of the career areas will require training beyond the Associate of Science degree and in some cases a post-graduate degree:

Career fields available to Chemistry students:

- Biochemistry
- Chemical Engineering
- Civil Engineering
- Education, secondary and post-secondary
- Environmental Science
- Forensic Science
- Medical Technology
- Mineral Processing
- Molecular Biology
- Oil Refining
- Petroleum Engineering
- Pharmacy
- Plastics manufacturing
- Water Treatment

Computer Aided Drafting and Design

Specialization: Architectural Drafting

The Architectural Drafting degree is designed to assist students in preparing architectural and structural construction documents, such as: residential projects, schools, office spaces, and commercial/industrial buildings. In addition, the students develop skills in the production of presentational free-hand drawings, working/study models, and various computer generated graphics. These means allow students to utilize specialized CAD software in solving design challenges both technically and graphically.

Specialization: Civil Drafting

A Civil Drafting prepares a student in producing drawings related to the civil engineering profession. Such drawings can include: Topographical Maps, Property Boundary Maps & Surveys, Utility Design Maps (water distribution and sanitary sewer collection), Drainage Plans, and Grading Plans. These drawings/plans play an important role in the preparation of a site for the construction of highways, roads, bridges, buildings, parks, lakes, homes, and many other developments.

Specialization: Digital Imaging

Students with a Digital Imaging degree are trained to create, manipulate, or enhance computerized images. The technician will prepare the imaging needs for architects, engineers, contractors, and publication agencies. These images may be applied in every day marketing, communication, and design production. Students can utilize their skills not only for the creation of technical documents but also for the creation of computer renderings and animations, digital photographs and video for presentation purposes.

Specialization:

Geographic Information Systems

A Geographic Information System (GIS) degree prepares a student to combine layers of information about a geographic location to create a “smart” map. The layers of information depend on the purpose, for example: finding the best location for a new store, projecting environmental changes, detecting crime patterns, analyzing emergency response routes. At the completion of this program, the training will provide the appropriate skills for employment in an entry-level position with national, state, and local government agencies, as well in the private sector.

Prior to completion of the Associate of Applied Science program, the student is expected to have completed 320 hours of an external learning experience.

ADVISORY COMMITTEE

Hugo Avila, Project Manager, Unitech Engineering, Inc.; *Jesus Bustos*, AIA, Principal, IDEA Group; *Ruben Chapa*, P.E., Project Manager, Melden & Hunt, Inc.; *David Flores*, Project Manager, GIS Coordinator, J.E. Saenz & Associates, Inc.; *Andres Mata*, Project Manager, CKNR Architects; *George Mendoza*, Principal, Structural Design Services; *Jesse Salinas*, Digital Imaging Teacher, Edinburg High School; *Efrain Silva*, Job Captain, Milnet Architectural Services; *Dora Vela*, UTPA, Hidalgo Education Center

ARCHITECTURAL DRAFTING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

TECM 1303	Technical Mathematics.....	3
COSC 1301	Microcomputer Applications	3
DFTG 1305	Technical Drafting.....	3
DFTG 1309	Basic Computer Aided-Drafting..	3
DFTG 1315	Architectural Blueprint Reading and Sketching	3

SECOND SEMESTER

ENGL 1312	Business Writing	3
ARCE 1321	Architectural Illustration	3
DFTG 2319	Intermediate Computer-Aided Drafting.....	3
DFTG 1317	Architectural Drafting- Residential.....	3
DFTG 2328	Architectural Drafting - Commercial.....	3

THIRD SEMESTER (SUMMER SESSION)

DFTG 2338	Final Project- Advanced Drafting.....	3
ARCE 1352	Structural Detailing.....	3
ARCE 2352	Mechanical Electrical Systems....	3

Total Credit Hours: 39

CIVIL DRAFTING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

TECM 1303	Technical Mathematics.....	3
COSC 1301	Microcomputer Applications	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer Aided-Drafting..	3
DFTG 1371	Introduction to the Civil Drafting Profession	3

SECOND SEMESTER

ENGL 1312	Business Writing	3
DFTG 2319	Intermediate Computer-Aided Drafting.....	3
SRVY 1313	Plane Surveying.....	3
DFTG 2321	Topographical Drafting	3
SRVY 1315	Surveying Calculations I.....	3

THIRD SEMESTER (SUMMER SESSION)

	Program Elective	3
CRTG 1311	Introduction to GIS	3
DFTG 2330	Civil Drafting	3
SRVY 1380	CAPSTONE: Cooperative Education	3

Total Credit Hours: 42

PROGRAM ELECTIVES

SRVY 1341	Land Surveying.....	3
SRVY 1349	Surveying Calculations II.....	3
DFTG 2328	Architectural Drafting - Commercial.....	3

DIGITAL IMAGING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

TECM 1303	Technical Mathematics.....	3
COSC 1301	Microcomputer Applications	3
ARTC 1302	Digital Imaging I	3
DFTG 1309	Basic Computer Aided-Drafting..	3
ARTC 1321	Illustration Techniques I	3

SECOND SEMESTER

ARTC 1317	Design Communication I	3
ARCE 1321	Architectural Illustration	3
DFTG 2319	Intermediate Computer-Aided Drafting.....	3
DFTG 1317	Architectural Drafting - Residential.....	3
ARTC 1353	Computer Illustration.....	3

THIRD SEMESTER (SUMMER SESSION)

ENGL 1312	Business Writing	3
ARTC 2347	Design Communication II.....	3
	Program Elective	3
GRPH 1380	CO-OP Digital Imaging Design ...	3

Total Credit Hours: 42

PROGRAM ELECTIVES

DFTG 2340	Solid Modeling / Design.....	3
ARTC 1350	Illustration Techniques II.....	3
DFTG 2300	Interm. Architectural Drafting Residential.....	3

GEOGRAPHIC INFORMATION SYSTEMS

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

CRTG 1311	Technical Mathematics.....	3
TECM 1303	Technical Mathematics.....	3
COSC 1301	Microcomputer Applications	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer Aided-Drafting	3

SECOND SEMESTER

ENGL 1312	Business Writing	3
CRTG 2320	Intermediate GIS	3
CRTG 1301	Cartography & Geography in GIS and GPS	3
DFTG 2319	Intermediate Computer-Aided Drafting.....	3
	Program Elective.....	3

THIRD SEMESTER (SUMMER SESSION)

CRTG 1364	CAPSTONE: GIS Practicum	3
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Total Credit Hours: 33

PROGRAM ELECTIVES

CRTG 1321	Intro. To Raster-Based GIS.....	3
SRVY 1315	Surveying Calculations I.....	3
SRVY 1313	Plane Surveying	3

Computer Aided Drafting and Design

Specialization:

ARCHITECTURAL DRAFTING

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>MATH 1414</u> College Algebra	4
COSC 1301 Microcomputer Applications	3
DFTG 1305 Technical Drafting	3
DFTG 1309 Basic Computer Aided-Drafting..	3
DFTG 1315 Architectural Blueprint Reading & Sketching	3

SECOND SEMESTER

ENGL <u>1301</u> Composition	3
ARCE 1321 Architectural Illustration	3
DFTG 2328 Architectural Drafting- Commercial	3
DFTG 2319 Intermediate Computer- Aided Drafting.....	3
DFTG 1317 Architectural Drafting- Residential	3

THIRD SEMESTER

DFTG 2321 Topographical Drafting	3
ARCE 1352 Structural Detailing.....	3
ARCE 1303 Architectural Materials & Methods of Construction	3
DFTG 2300 Intermediate Architectural Drafting - Residential	3
<u>PSYC 2301</u> <u>General Psychology or</u> <u>SOCI 1301</u>	3

FOURTH SEMESTER

DFTG 1372 Final Presentation/ Portfolio Development.....	3
<u>SPCH 1311</u> <u>Introduction to Speech</u> <u>Communication</u>	3
DFTG 2338 Final Project-Advanced Drafting .	3
DFTG 2340 Solid Modeling/Design.....	3
ARCE 2352 Mechanical & Electrical Systems.	3

FIFTH SEMESTER

<u>Humanities Elective</u>	3
Program Elective	3
DFTG 1380 CAPSTONE: Cooperative Education ...	3

Total Credit Hours:..... 70

PROGRAM ELECTIVES

CNBT 1346 Construction Estimating I	3
ARTC 1302 Digital Imaging I	3
CRTG 1311 Introduction to GIS	3

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Computer Aided Drafting and Design

Specialization:

CIVIL DRAFTING

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>MATH 1414</u> College Algebra.....	4
COSC 1301 Microcomputer Applications	3
DFTG 1305 Technical Drafting.....	3
DFTG 1309 Basic Computer Aided-Drafting.....	3
DFTG 1371 Introduction to the Civil Drafting Profession.....	3

SECOND SEMESTER

<u>ENGL 1301</u> Composition	3
DFTG 2319 Intermediate Computer-Aided Drafting.....	3
SRVY 1313 Plane Surveying.....	3
DFTG 2321 Topographical Drafting.....	3
SRVY 1315 Surveying Calculations I.....	3

THIRD SEMESTER

<u>SPCH 1311</u> Introduction to Speech Communication	3
SRVY 1341 Land Surveying	3
DFTG 2330 Civil Drafting.....	3
CRTG 1311 Introduction to GIS	3
Program Elective.....	3

FOURTH SEMESTER

<u>PSYC 2301</u> General Psychology or <u>SOCI 1301</u>	3
DFTG 2328 Architectural Drafting - Commercial.....	3
SRVY 2309 Computer-Aided Mapping	3
SRVY 1342 Global Positioning System Tech. For Survey/Mapping.....	3
<u>Humanities Elective</u>	3

FIFTH SEMESTER (SUMMER SESSION)

DFTG 2332 Advanced Computer-Aided Drafting.....	3
SRVY 2380 Cooperative Education- Survey Technology	3
Program Elective.....	3

Total Credit Hours: 70

PROGRAM ELECTIVES

SRVY 2313 Control Surveying.....	3
DFTG 1317 Architectural Drafting- Residential.....	3
SRVY 2339 Engineering Design Surveying....	3
SRVY 1349 Surveying Calculations II.....	3

Identifies courses to fulfill minimum 15 hours General
Education Requirement

Computer Aided Drafting and Design

Specialization:

DIGITAL IMAGING

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER Credit Hours

<u>ENGL 1301</u> Composition	3
COSC 1301 Microcomputer Applications	3
ARTC 1302 Digital Imaging I	3
DFTG 1309 Basic Computer Aided-Drafting..	3
ARTC 1321 Illustration Techniques I	3

SECOND SEMESTER-SPRING

<u>MATH 1414</u> College Algebra	4
ARTC 1317 Design Communication I	3
DFTG 2319 Intermediate Computer-Aided Drafting.....	3
DFTG 1317 Architectural Drafting- Residential	3
ARCE 1321 Architectural Illustration	3

THIRD SEMESTER (SUMMER SESSION)

ARTC 2347 Design Communication II.....	3
ARTC 1353 Computer Illustration.....	3
PHTC 2331 Architectural Photography	3
DFTG 2340 Solid Modeling/Design.....	3
Program Elective.....	3

FOURTH SEMESTER-FALL

<u>SPCH 1311</u> Introduction to Speech Communication	3
ARTC 2340 Computer Illustration.....	3
ARTV 1351 Digital Video.....	3
ARTV 1341 3-D Animation I.....	3
IMED 2311 Portfolio Development.....	3

FIFTH SEMESTER-SPRING

<u>Humanities Elective</u>	3
<u>PSYC 2301</u> General Psychology or <u>SOCI 1301</u>	3
GRPH 2380 CO-OP - Digital Imaging Design (new course).....	3

Total Credit Hours: 70

PROGRAM ELECTIVES

ARTC 1305 Illustration Techniques II (new course).....	3
DFTG 2300 Intern. Architectural Drafting Residential (new course)	3
PHTC 1347 Landscape Photography (new course).....	3

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Computer Aided Drafting and Design

Specialization: GEOGRAPHIC

INFORMATION SYSTEMS

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

<u>MATH 1414</u> College Algebra	4
COSC 1301 Microcomputer Applications	3
CRTG 1311 Introduction to GIS	3
DFTG 1305 Technical Drafting	3
DFTG 1309 Basic Computer Aided- Drafting.....	3

SECOND SEMESTER

CRTG 2320 Intermediate GIS	3
SRVY 1315 Surveying Calculations I.....	3
DFTG 2319 Intermediate Computer- Aided Drafting.....	3
CRTG 1301 Cartography & Geography in GIS and GPS	3
<u>SPCH 1311</u> Introduction to Speech Communication	3

THIRD SEMESTER

DFTG 2321 Topographical Drafting	3
SRVY 1313 Plane Surveying.....	3
CRTG 1321 Introduction to Raster- Based GIS	3
ITSE 1431 Introduction to Visual Basic Programming	4
<u>PSYC 2301</u> General Psychology or <u>SOCI 1301</u>	3

FOURTH SEMESTER

CRTG 2311 Workplace Geographic Information Systems (GIS) Applications	3
ITSE 2409 Database Programming	4
CRTG 2301 Data Acquisition and Analysis in GIS/GPS.....	3
DFTG 2330 Civil Drafting	3
<u>ENGL 1301</u> Composition	3

FIFTH SEMESTER

Program Elective.....	3
<u>Humanities Elective</u>	3
CRTG 2364 CAPSTONE: GIS Practicum	3

Total Credit Hours: 72

PROGRAM ELECTIVES

SRVY 1342 GPS Techniques for Surveying and Mapping.....	3
SRVY 2309 Computer-Aided Mapping	3

Identifies courses to fulfill minimum 15 credit hour

General Education Requirement

Computer Science

Computer Information Systems

Field of Study

Associate of Science

This program is designed for students who plan to specialize in Business Computer Applications at a four-year college or university. In addition to completing the General Education requirements as outlined in this catalog, students take business classes in accounting, economics and business programming languages which will fulfill the Computer Information Systems degree. Students who wish to declare this transfer major should ask for program planning assistance from a Computer Science program advisor. Transfer institutions vary in lower division (first two years of college) major department requirements. Meeting the STC Associate of Science degree requirements does not automatically guarantee that all four-year colleges will accept each and every course toward their degree plan. It is imperative that students work closely with STC departmental faculty and the four-year college faculty in determining transferability of courses.

Computer Science, Field of Study

Associate of Science

This program is designed for students who plan to specialize in Computer Software Engineering and Computer Science at a four-year college or university. Students who wish to declare this transfer major should ask for program planning assistance from a Computer Science program advisor. Transfer institutions vary in lower division (first two years of college) major department requirements. Meeting the STC Associate of Science degree requirements does not automatically guarantee that all four-year colleges will accept each and every course toward their degree plan. It is imperative that students work closely with STC departmental faculty and the four-year college faculty in determining transferability of courses.

Career Opportunities

Computer Science

The Bureau of Labor Statistics estimates that

through the year 2012 some computer-related occupations will be some of the fastest growing occupations increasing by more than 36 percent nationally. Graduates of the Computer Science Department are in high demand. Companies are struggling to find competent technical talent to fulfill their needs. Some disciplines under Computer Science include:

- Computer Programmer
- Programmer Analyst
- Software Engineers
- Computer and Information Scientist
- Computer Hardware Engineers

Computer Information Systems

The Bureau of Labor Statistics estimates that through the year 2012, computer-related employment in such areas as Computer Systems Analysts, Database Administrators, and Computer and Information Systems Managers will increase by more than 36 percent nationally. Graduates of the Computer Science Department are in high demand. Companies are struggling to find competent talent to fulfill their needs. Some disciplines under Computer Information Systems include the above mentioned as well as:

- Applications Programmers
- Computer Support Specialist
- Information Security Coordinator
- Network and Computer Systems Administrators

The Computer Science Department prepares students for transfer to a four-year institution where they can specialize in such disciplines.

Academic Advisement

Students are assigned to an advisor in the department upon declaring a major in Computer Science. Students should also consult their advisor for approval of academic matters such as choice of electives, course substitutions, course overloads, and adding and dropping courses.

COMPUTER INFORMATION SYSTEMS, *Field of Study*

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY **17 Credits**

- COSC 1315 Fundamentals of Programming
- COSC 1430 Computer Programming
- BCIS 1332 Cobol Programming
- BCIS 2332 Advanced Cobol Programming
- ACCT 2401 Principles of Financial Accounting

STC CORE CURRICULUM **45 Credits**

In addition to the Field of Study and the Business Foundation hours, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 in the catalog. **Computer Information Systems majors must take ECON 2301 – Principles of Economics I-Macro to fulfill to Social/Behavioral Science component of the Core Curriculum.**

Field of Study: 17

STC Core Curriculum: 45

Total Credit Hours: 62

Computer Information Systems Recommended Course Sequence

FIRST SEMESTER **Credit Hours**

- SPCH 1311 Introduction to Speech
Communication or SPCH 1315
or SPCH 1318 or SPCH 13213
- HIST 1301 United States History I
or HIST 23273
- ENGL 1301 Composition3
- COSC 1301 Microcomputer Applications3
- MATH1414 College Algebra or MATH 2412
or MATH 24134

SECOND SEMESTER

- HIST 1302 United States History II
or HIST 23283
- ENGL 1302 Composition II - Rhetoric3
- ACCT 2401 Principles of Financial
Accounting4
- COSC 1430 Computer Programming4

THIRD SEMESTER

- GOVT 2301 American Government I3
- ECON 2301 Principles of Economics I-
MACRO3
- Natural Sciences Elective-
Core Curriculum4
- COSC 1315 Fundamentals of Programming .3
- BCIS 1332 Cobol Programming3

FOURTH SEMESTER

- Visual & Performing Arts Elective-
Core Curriculum3
- GOVT 2302 American Government II3
- Natural Sciences Elective-
Core Curriculum4
- Humanities Elective-
Core Curriculum3
- BCIS 2332 Advanced Cobol Programming...3

COMPUTER SCIENCE

Field of Study

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY 15 credits

- COSC 1309 Logic Design
- COSC 1320 C Programming I
- COSC 2315 Data Structures
- COSC 2325 Computer Organization & Machine Language
- COSC 2330 Advanced Structured Language

STC CORE CURRICULUM 45 Credits

In addition to the courses in the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 of the catalog.

Field Of Study: 15

Stc Core Curriculum: 45

Total Credit Hours: 60

Computer Science Recommend Course Sequence

FIRST YEAR-FALL SEMESTER Credit Hours

- HIST 1301 United States History I
or HIST 23273
- ENGL 1301 Composition3
- MATH1414 College Algebra or MATH 2412
or MATH 24134
- COSC 1301 Microcomputer Applications3

FIRST YEAR - SPRING SEMESTER

- HIST 1302 United States History II
or HIST 23283
- ENGL 1302 Composition II - Rhetoric3
Natural Sciences Elective-
Core Curriculum4
- COSC 1320 C Programming I3
- GOVT 2301 American Government I3

SECOND YEAR - FALL SEMESTER

- COSC 1309 Logic Design3
- SPCH 1311 Introduction to Speech
Communication or SPCH 1315
or SPCH 1318 or SPCH 13213
Social & Behavioral Science
Elective - Core Curriculum3
Natural Sciences Elective-
Core Curriculum4
- COSC 2315 Data Structures3

SECOND YEAR - FALL SEMESTER

- GOVT 2302 American Government II3
- COSC 2330 Advanced Structured
Languages3
- COSC 2325 Computer Organization &
Machine Language3
Visual & Performing Arts Elective
- Core Curriculum3
Humanities Elective -
Core Curriculum3

Culinary Arts

Commercial Cooking **Certificate**

This certificate prepares students to serve under the supervision of chefs and other food service professionals as kitchen support staff and commercial food preparation workers.

Culinary Arts, **Associate of Applied Science**

The program will prepare students through lecture and lab courses in culinary arts, nutrition, supervision, a practicum, and general education courses. This degree leads to careers in restaurants, catering, hotels and resorts, and other commercial food services. Graduates take positions as sous-chefs, professional assistants to chefs or culinary managers, supervisors of food production and service, stewards, banquet managers, purchasing agents, or restaurant supervisors.

ADVISORY COMMITTEE

Joe Demarino, Saleman, Best Restaurant Supply; *Marcel Fortuin*, owner, Bistro M; *Jeffery Sabadi*, owner, Sahadi Foods; *Gloria Sanford*, manager, Flying "J"; *Diane Shea*, owner, Shea Catering; *Russel Walker*, salesman, Sysco Foods; *Dago Rivera*, executive chef, *Mario Roman*, food & beverage manager, Cimmaron Country Club; *Luis Zambrano*, food & beverage manager, Dodge Arena

COMMERCIAL COOKING

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

CHEF 1305 Sanitation and Safety	3
CHEF 1301 Basic Food Preparation	3
PSTR 1301 Fundamentals of Baking.....	3
BIOL 1322 Nutrition and Diet Therapy.....	3

SECOND SEMESTER

RSTO 2307 Catering	3
RSTO 2301 Principles of Food and Beverage Controls	3
CHEF 1345 International Cuisine	3
CHEF 1264 CAPSTONE: Practicum I.....	2

Total Credit Hours: 23

CULINARY ARTS

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER Credit Hours

CHEF 1305 Sanitation and Safety	3
CHEF 1301 Basic Food Preparation	3
PSTR 1301 Fundamentals of Baking.....	3
<u>ENGL 1301 Composition</u>	3
<u>SOCI 1301 Introductory Sociology</u>	3

SECOND SEMESTER

CHEF 2301 Intermediate Food Preparation.	3
RSTO 2307 Catering	3
RSTO 2301 Principles of Food and Beverage Controls	3
HAMG1324 Hospitality Human Resources Management	3
TECM 1303 Technical Mathematics.....	3
<u>Humanities Elective</u>	3

THIRD SEMESTER

CHEF 1345 International Cuisine	3
<u>BIOL 2320 Microbiology for Food Service</u>	3
<u>BIOL 1322 Nutrition and Diet Therapy</u>	3
<u>COSC 1301 Microcomputer Applications</u>	3
ACNT 1303 Introduction to Accounting I or MRKG 1311	3

FOURTH SEMESTER

PSTR 2331 Advanced Pastry Shop	3
CHEF 2331 Advanced Food Preparation	3
RSTO 1301 Beverage Management	3
BUSG 2309 Small Business Management	3
SPCH 1311 Intro. to Speech Communication or SPCH 1321	3
CHEF 2264 CAPSTONE: Practicum II.....	2

Total Credit Hours: 65

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Culinary Arts

Specialization:

RESTAURANT MANAGEMENT

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

RSTO 1306	Facilities Layout & Design.....	3
RSTO 1325	Purchasing for Hospitality Operations	3
CHEF 1305	Sanitation and Safety	3
ENGL 1301	Composition	3
SOCI 1301	Introductory Sociology.....	3

SECOND SEMESTER

RSTO 1301	Beverage Management	3
RSTO 1304	Dining Room Service	3
HAMG1324	Hospitality Human Resources Management	3
MATH 1324	Finite Mathematics	3
SPCH 1311	Introduction to Speech Communication or SPCH 1321... Humanities Elective.....	3

THIRD SEMESTER

HAMG 2307	Hospitality Marketing and Sales.....	3
RSTO 1321	Menu Management.....	3
BIOL 1322	Nutrition and Diet Therapy.....	3
COSC 1301	Microcomputer Applications	3
ACNT 1303	Introduction to Accounting I	3

FOURTH SEMESTER

RSTO 2405	Management of Food Production & Services	4
RSTO 2431	Food Service Management	4
RSTO 2301	Principles of Food and Beverage Controls	3
RSTO 2307	Catering.....	3
BUSG 2309	Small Business Management.....	3
RSTO 2264	CAPSTONE: Restaurant Management Practicum.....	2

Total Credit Hours:..... 67

Identifies courses to fulfill minimum 15 credit hour

General Education Requirement

Diesel Technology

Diesel Technology

Certificate and

Associate of Applied Science

The Diesel Technology industry is a rapidly growing industry which is requiring a growing number of qualified technicians.

The Diesel Technology student will acquire the knowledge and skills necessary for the repair of diesel engines, electrical and electronic control systems, hydraulic systems, air brakes, suspension, steering, and transmissions through a combination of lecture and lab work, to include troubleshooting and diagnostic procedures.

ADVISORY COMMITTEE

Howard Winston, Service Manager, Rush Truck Center, *Chad Godfrey*, Service Manager, Holt Company, *Richard Estevanes*, Service Manager, Valley Volvo Truck, *Ted Ackerman*, Thermo King Foreman, Stewart & Stevenson, *Jerry Billecek*, General Manager, Pioneer Equipment, *Sam Martinez*, Shop Foreman, Valley Caliche Products, Inc., *Danny Cuellar Jr.*, Service Manager, French-Ellison Truck Center

DIESEL TECHNOLOGY

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

DEMR 1401 Diesel Shop Safety and Procedures	4
DEMR 1416 Basic Hydraulics	4
DEMR 1410 Diesel Engine Testing and Repair I	4
TECM 1303 Technical Mathematics	3

SECOND SEMESTER

AUMT 1345 Automotive Heating and Air Conditioning	3
DEMR 1317 Basic Brake Systems	3
DEMR 1405 Basic Electrical Systems	4
DEMR 1442 Power Train Applications I	4

THIRD SEMESTER

WLDG1421 Introduction to Welding Fundamentals for Diesel Technicians	4
DEMR 2432 Electronic Controls	4
DEMR 1230 Steering & Suspension I	2
DEMR 1303 Basic Driving Skills	3

CAPSTONE: Successful completion of a departmental exit exam

Total Credit Hours: 42

DIESEL TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

DEMR 1401 Diesel Shop Safety and Procedures	4
DEMR 1416 Basic Hydraulics	4
DEMR 1410 Diesel Engine Testing and Repair I	4
<u>Math/Natural Sciences Elective</u>	4

SECOND SEMESTER

AUMT 1345 Automotive Heating and Air Conditioning	3
DEMR 1317 Basic Brake Systems	3
DEMR 1230 Steering & Suspension I	2
DEMR 1405 Basic Electrical Systems	4
DEMR 1442 Power Train Applications I	4

SUMMER SESSION I

<u>Social/Behavioral Sciences Elective</u>	3
<u>Humanities Elective</u>	3

THIRD SEMESTER

WLDG1421 Introduction to Welding Fundamentals for Diesel Technicians	4
DEMR 2432 Electronic Controls	4
DEMR 1229 Preventative Maintenance	2
<u>SPCH 1318 Interpersonal Communication</u>	3
<u>ENGL 1301 Composition or ENGL 1312</u>	3

FOURTH SEMESTER

DEMR 1449 Diesel Engines II	4
DEMR 1435 Automatic Power Shift and Hydrostatic Transmissions I	4
DEMR 2448 Failure Analysis	4
DEMR 1266 CAPSTONE: Practicum	2

Total Credit Hours: 68

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Electronic and Computer Maintenance Technology

Specialization:

Computer Maintenance Technology Certificate and Associate of Applied Science

Students who graduate from this specialization will learn the skills necessary to compete in the computer maintenance industry. They will learn skills such as computer repair, maintenance, peripheral installation and troubleshooting, as well as provide hardware and software support for users within their organization.

Specialization:

Computer Support Specialist Certificate and Associate of Applied Science

In this specialization, students will learn computer support skills which include repair, maintenance, and support for computer systems and networks. Students will take courses to learn how to properly install and troubleshoot computer systems, software, peripherals, and networks as well as provide technical support for users within their organization.

Specialization:

Convergent Technology Specialist Certificate and Associate of Applied Science

Convergence is the combination of telecom, data processing and imaging technologies and placing all of these into one operating platform. It includes traditional telecommunication systems such as telephony and broadband and adds networking services to be placed on these technologies. Students will take courses in convergent technology and learn the latest telecommunication trends which voice, data and images are combined to deliver many services to end users.

Specialization:

Electronics Technology Specialist Certificate and Associate of Applied Science

This specialization covers basic and advanced electronics to prepare students with the hands-on training they need to work in the electronics industry. Graduates may find employment in occupations requiring electronics troubleshooting such as bench technicians in service centers, performing repairs for office equipment and other electronic related companies.

ADVISORY COMMITTEE

Jose Lucio Gonzalez, Systems Specialist, South Texas College, *Jaime Hinojosa*, IT Manager, Starr Camargo Bridge Company, *Eric Rodriguez*, Owner, PC Station, Rio Grande City; *Maby Rosenbaum*, LAN/WAN Engineer, South Texas College, McAllen, Rio Grande City; *Edi Sanjoto*, Advanced Manufacturing Engineering Manager, Alps Automotive Company, McAllen; *David Wampole*, Senior Buyer, Symbol Technologies, McAllen

COMPUTER MAINTENANCE SPECIALIST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
CPMT 1403 Introduction to Computer Technology	4
CPMT 1404 Microcomputer Systems Software	4
CPMT 1411 Introduction to Computer Maintenance	4
ITNW 1425 Fundamentals of Networking Technologies.....	4

SECOND SEMESTER

CPMT 1445 Computer Systems Maintenance.....	4
CPMT 1447 Computer System Peripherals	4
CPMT 1449 Computer Networking Technology	4
EECT 1440 Telecommunications Transmission Media.....	4
CPMT 1166 CAPSTONE: Computer Maintenance Practicum.....	1

Total Credit Hours:..... 33

COMPUTER SUPPORT SPECIALIST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
CPMT 1403 Introduction to Computer Technology	4
EECT 1440 Telecommunications Transmission Media.....	4
ITNW 1425 Fundamentals of Networking Technologies.....	4
CPMT 1411 Introduction to Computer Maintenance	4

SECOND SEMESTER

ITNW 2401 Administering Servers	4
CPMT 1445 Computer Systems Maintenance.....	4
ITNW 2421 Networking with TCP/IP.....	4
ITSC 1407 UNIX Operating System I.....	4
CPMT 2188 CAPSTONE: Internship- Computer Installation	1

Total Credit Hours:..... 33

CONVERGENT TECHNOLOGY SPECIALIST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
ITNW 1425 Fundamentals of Networking Technologies.....	4
EECT 1403 Introduction to Telecommunications.....	4
EECT 1407 Convergent Technologies.....	4
EECT 1440 Telecommunication Transmission Media.....	4
 SECOND SEMESTER	
ITNW 2421 Networking with TCP/IP.....	4
ITNW 2401 Administering Servers	4
EECT 1444 Telecommunication Broadband Systems	4
EECT 2433 Telephone Systems	4
EECT 2188 CAPSTONE: Communication Engineering Tech.....	1
 Total Credit Hours:	33

ELECTRONICS TECHNOLOGY SPECIALIST

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER	Credit Hours
CETT 1403 DC Circuits	4
CETT 1425 Digital Fundamentals	4
CPMT 1407 Electronic and Computer Skills	4
 SECOND SEMESTER	
CETT 1405 AC Circuits.....	4
CETT 1441 Solid State Circuits.....	4
CETT 1449 Digital Systems	4
 THIRD SEMESTER	
CETT 1457 Linear Integrated Circuits.....	4
CETT 2439 Amplifier Analysis	4
ELMT 2435 Certified Electronics Tech Training.....	4
CETT 2189 CAPSTONE: Internship.....	1
 Total Credit Hours:	37

Electronic & Computer Maintenance Technology

Specialization: **COMPUTER MAINTENANCE TECHNOLOGY**

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

CPMT 1403	Introduction to Computer Technology	4
CPMT 1404	Microcomputer Systems Software ...	4
CPMT 1411	Introduction to Computer Maintenance.....	4
ITNW 1425	Fundamentals of Networking Technologies.....	4

SECOND SEMESTER

CPMT 1445	Computer Systems Maintenance	4
CPMT 1447	Computer System Peripherals	4
CPMT 1449	Computer Networking Technology	4
EECT 1440	Telecommunications Transmission Media.....	4

SUMMER SESSION

<u>Social/Behavioral Sciences Elective.....</u>	3
<u>Humanities Elective.....</u>	3

THIRD SEMESTER

CPMT 2433	Computer Integration	4
CPMT 2445	Computer System Troubleshooting	4
CPMT 2449	Advanced Computer Networking Technology.....	4

FOURTH SEMESTER

CPMT 2350	Industry Certification Preparation ...	3
<u>SPCH 1311</u>	<u>Introduction to Speech Communication</u>	3
<u>ENGL 1301</u>	<u>Composition</u>	3
<u>MATH 1332</u>	<u>Contemporary Mathematics</u>	3
CPMT 2166	CAPSTONE: Computer Maintenance Practicum	1

Total Credit Hours: 63

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Electronic & Computer Maintenance Technology

Specialization: **COMPUTER SUPPORT SPECIALIST**

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

CPMT 1403	Introduction to Computer Technology ..	4
EECT 1440	Telecommunications Transmission Media.....	4
ITNW 1425	Fundamentals of Networking Technologies	4
CPMT 1411	Introduction to Computer Maintenance	4

SECOND SEMESTER

ITNW 2401	Administering Servers	4
CPMT 1445	Computer Systems Maintenance	4
ITNW 2421	Networking with TCP/IP.....	4
ITSC 1407	UNIX Operating System I.....	4

FIRST YEAR - Summer

<u>ENGL 1301</u>	<u>Composition</u>	3
<u>SPCH 1311</u>	<u>Introduction to Speech Communication</u>	3
<u>MATH 1332</u>	<u>Contemporary Mathematics</u>	3

THIRD SEMESTER

ITSY 1442	Information Technology Security	4
CPMT 1449	Computer Networking Technology .	4
CPMT 2433	Computer Integration	4

FOURTH SEMESTER

CPMT 2445	Computer System Troubleshooting	4
CPMT 2449	Advanced Computer Networking Technology.....	4
	<u>Humanities Elective</u>	3
	<u>Social/Behavioral Sciences Elective.....</u>	3
CPMT 2288	CAPSTONE: Internship-Computer Installation	2

Total Credit Hours: 69

Identifies courses to fulfill minimum 15 credit hour General Education Requirement

Engineering

Engineering, Field of Study **Associate of Science**

The Associate of Science degree with a field of study in Engineering offers students the opportunity to take a core curriculum of general education with an emphasis on Engineering. At the present time, over two-thirds of all the technical and a large percentage of the managerial positions in industry are occupied by engineers. Our engineering program prepares students for transfer to a four-year institution where they can specialize in such disciplines as:

- Aerospace Engineering
- Agriculture Engineering
- Bioengineering
- Chemical Engineering
- Civil Engineering
- Computer Science Engineering
- Electrical Engineering
- Forest Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering
- Ocean Engineering
- Petroleum Engineering
- Radiological Health Engineering

This listing parallels the first two years of education that one would receive at most engineering schools. Upon completion of this sequence, many students transfer to an engineering school and obtain a degree in one of the various engineering fields. However, students intending to transfer should be aware of the transfer institution's requirements.

It is possible to complete the engineering sequence in a number of ways and time periods. However, because of sensitive math and physics prerequisites, the suggested guideline below should be closely followed if

one hopes to complete the program in a timely manner. Entering student please note that the first semester suggests Precalculus Algebra and Trigonometry (MATH 2412). Prerequisites for this course included MATH 1414 which can be completed in the summer prior to the start of the fall semester.

ENGINEERING *Field of Study*

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY **17 Credits**

MATH2413 Calculus I
ENGR 1101 Introduction to Engineering
ENGR 1204 Engineering Graphics
ENGR 2301 Statics
ENGR 2302 Dynamics
ENGR 2430 Digital Systems Engineering I

STC CORE CURRICULUM **45 credits**

In addition to the courses in the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 of the catalog. **Engineering majors may take the following courses to fulfill the Natural Sciences component of the Core Curriculum: PHYS 2425-University Physics I & PHYS 2426-University Physics II. Engineering majors must take MATH 2412-Precalculus Algebra and Trigonometry to fulfill the Mathematics component of the Core Curriculum.**

Field of Study: 17

STC Core Curriculum: 45

Total Credit Hours: 62

Engineering **Recommended Course Sequence**

FIRST SEMESTER **Credit Hours**

HIST 1301 United States History I or
HIST 23273
ENGL 1301 Composition3
COSC 1301 Microcomputer Applications
or COSC 1320.....3
MATH2412 Precalculus Algebra &
Trigonometry**4
ENGR 1101 Introduction to Engineering1

SECOND SEMESTER

HIST 1302 United States History II or
HIST 2328.....3
ENGL 1302 Composition II - Rhetoric3
Visual & Performing Arts Elective
- Core Curriculum.....3
ENGT 2430 Digital Systems Engineering I.....4
ENGR 1204 Engineering Graphics.....2

FIRST YEAR - SUMMER

MATH2413 Calculus I.....4
PHYS 2425 University Physics I.....4

THIRD SEMESTER

SPCH 1311 Intro. to Speech Communication
or SPCH 1315 or SPCH 1318
or SPCH 13213
GOVT 2301 American Government I.....3
ENGR 2301 Statics.....3
PHYS 2426 University Physics II.....4

FOURTH SEMESTER

GOVT 2302 American Government II3
Humanities Elective-
Core Curriculum.....3
ENGR 2302 Dynamics.....3
Social & Behavioral Science
Elective - Core Curriculum.....3

** Check catalog for course pre-requisites

Heating, Ventilation, Air Conditioning and Refrigeration Technology

Heating, Ventilation, Air Conditioning and Refrigeration Technology **Certificate and**

Associate of Applied Science

In the past 60 years, the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) field has experienced massive technological changes. It has gone from the era of the iceman to that of the educated and highly trained technician.

Heating, Ventilation, Air Conditioning and Refrigeration technicians are primarily trained in the service, repair, maintenance and installation of heating, cooling and refrigeration equipment including domestic, residential, commercial and industrial systems. Career preparation requires extensive educational training in refrigeration systems, electrical-electronic controls, pneumatic controls, cooling and heating systems, duct design, fabrication and residential and commercial heat gained and loss calculations.

Some of the opportunities for employment in Heating, Ventilation, Air Conditioning and Refrigeration include: Engineers in sales, application and operating. Technicians in testing, equipment installers, preventive maintenance, service and repair, wholesale and sheet metal specialist.

ADVISORY COMMITTEE

George Castaneda, President, McAllen Sheet Metal, McAllen; *Conrado Alvarez Jr.*, Vice President, Insko Distributing, Inc., McAllen; *Rodolfo Cantu*, Secretary, Johnson Supply Co., Inc., McAllen; *Raymond Givilancz*, Member, Ray-Cal Air Conditioning Inc., Weslaco; *Rene Garza*, Member, El Tigre Stores, Edinburg; *Diamantina Reyna*, Member, Self Employed, Edinburg.

**HEATING, VENTILATION,
AIR CONDITIONING AND
REFRIGERATION TECHNOLOGY**
CERTIFICATE

TSI EXEMPT

FIRST SEMESTER **Credit Hours**

CETT 1402	Electricity Principles	4
HART 1407	Refrigeration Principles	4
HART 1494	Special Tools, Fittings and Brazing Basics	4

SECOND SEMESTER

MAIR 1449	Refrigerators, Freezers, and Window Air Conditioners.....	4
HART 2445	Air Conditioning Systems Design	4
HART 1445	Gas & Electrical Heating.....	4

THIRD SEMESTER

HART 2442	Commercial Refrigeration	4
HART 2438	CAPSTONE: Air Conditioning Installation and Startup	4
HART 2441	Commercial Air Conditioning	4
HART 2431	Advanced Electricity	4

Total Credit Hours 40

**HEATING, VENTILATION,
AIR CONDITIONING AND
REFRIGERATION TECHNOLOGY**
ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

CETT 1402	Electricity Principles	4
HART 1407	Refrigeration Principles	4
HART 1494	Special Tools, Fittings and Brazing Basics	4
<u>ENGL 1301</u>	<u>Composition</u>	3

SECOND SEMESTER

MAIR 1449	Refrigerators, Freezers, and Window Air Conditioners.....	4
HART 2445	Air Conditioning Systems Design	4
HART 1445	Gas & Electrical Heating.....	4
<u>MATH 1414</u>	<u>College Algebra</u>	4
<u>COSC 1301</u>	<u>Microcomputer Applications</u>	3

THIRD SEMESTER

HART 2442	Commercial Refrigeration	4
HART 2438	CAPSTONE: Air Conditioning Installation and Startup	4
HART 2441	Commercial Air Conditioning	4
HART 2431	Advanced Electricity	4

FOURTH SEMESTER

HART 2443	Industrial Air Conditioning	4
	<u>Humanities Elective</u>	3
	<u>Social/Behavior Sciences Elective</u>	3
SPCH 1318	<u>Interpersonal Communications</u>	3

Total Credit Hours:..... 63

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Manufacturing Technology

The Precision Manufacturing and Industrial Systems Maintenance Technology programs provide an environment to develop technical skills that are highly marketable to the area's industries. Most of the courses are set up to stimulate actual working environments.

Technical coursework begins in the first semester in order to develop a common skill base for the program. During this first semester the student will learn how to use computers, read and use industrial prints, and gain technical skills.

Industrial Systems Maintenance Technology Certificate

This Certificate program includes studies in industrial electricity, electrical motor controls, programmable controllers (PLC), fluid power, and safety. This program will help prepare students to work with engineers to install industrial controls, troubleshoot hydraulic equipment problems, and reduce manufacturing downtime. This course will help prepare graduates to take leadership roles and progress into higher levels of employment opportunities.

Precision Manufacturing Technology Certificate

This Certificate program includes studies to enable the student to specialize in machining, precision measurement, tool and die, and manufacturing processes. Upon completion, this specialty will allow the student to continue in the Precision Manufacturing Technology's two-year Associate of Applied Science Degree program or permit the student to work in a highly rewarding career field in industry.

Precision Manufacturing Technology Associate of Applied Science

This degree program provides an environment to develop technical skills. All courses are set up to simulate a working environment.

Technical coursework includes machine tool labs, materials and processes, AutoCAD, CNC, welding and teamwork, and workplace communication. Specialty coursework includes quality control, injection molding, tool and fixture design, and advanced machine tooling.

ADVISORY COMMITTEE

Russ Colidge, Chairman, Process Engineer Progressive Molded Products; *Wanda Forbs*, Human Resource Director, Plastec; *Barry Goodacre*, Engineer Manager, GE Engine Services; *Mike Willis*, Director of STMA; *Julio S. Guerrero*, Tooling Engineer, Alpha XL Mold and Tool; *Keith Patridge*, VP, MEDC; *Ted Reynolds*, GM, Universal Metal Products

INDUSTRIAL SYSTEMS MAINTENANCE TECHNOLOGY

CERTIFICATE

TSI EXEMPT

FIRST SEMESTER Credit Hours

DFTG 1325	Blueprint Reading & Sketching ..	3
COSC 1301	Microcomputer Applications	3
MCHN1343	Machining Mathematics	3
MCHN1438	Machining I	4
CETT 1402	Electricity Principles	4

SECOND SEMESTER

QCTC 1305	Teaming.....	3
ENGL 1312	Business Writing	3
DEMR 1301	Shop Safety and Procedures	3
IEIR 1310	Motor Controls	3
HYDR 1305	Basic Hydraulics.....	3
RBTC 1359	Pneumatics.....	3

THIRD SEMESTER

WLDG1337	Introduction to Metallurgy for Precision Manufacturing.....	3
MCHN1382	CAPSTONE: Cooperative Education I.....	3

Total Credit Hours:..... 41

PRECISION MANUFACTURING TECHNOLOGY

CERTIFICATE

TSI EXEMPT

FALL SEMESTER Credit Hours

DFTG 1325	Blueprint Reading & Sketching ..	3
MCHN 1343	Machining Mathematics	3
MCHN 1438	Machining I	4
ENGL 1312	Business Writing	3
MCHN 1320	Precision Tools and Measurement	3

SPRING SEMESTER

QCTC 1305	Teaming.....	3
DFTG 1313	Drafting for Specific Occupations	3
PLTC 1445	Plastic Processing I.....	4
MCHN 1452	Intermediate Machining I.....	4
COSC 1301	Microcomputer Applications	3

SUMMER SESSION

WLDG1337	Introduction to Metallurgy for Precision Manufacturing	3
MCHN 1382	CAPSTONE: Cooperative Education I.....	3

Total Credit Hours:..... 39

PRECISION MANUFACTURING TECHNOLOGY

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FALL SEMESTER Credit Hours

DFTG 1325	Blueprint Reading & Sketching ..	3
MCHN1438	Machining I	4
ENGL 1312	Business Writing	3
MCHN1343	Machining Mathematics	3
MCHN1320	Precision Tools and Measurements.....	3

SPRING SEMESTER

DFTG 1313	Drafting for Specific Occupations ...	3
PLTC 1445	Plastics Processing I.....	4
MCHN 1452	Intermediate Machining I.....	4
QCTC 1305	Teaming.....	3
<u>COSC 1301</u>	<u>Microcomputer Applications</u>	3

SUMMER SESSION

MCHN 1382	CAPSTONE: Cooperative Education I.....	3
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FALL SEMESTER

INMT 1445	Computer Numerical Controls ...	4
WLDG 1337	Introduction to Metallurgy for Precision Manufacturing.....	3
MCHN 2341	Advanced Machining I.....	3
	<u>Social/Behavioral Science</u> <u>Elective</u>	3
	<u>Math/Natural Sciences Elective</u> ...	4

SPRING SEMESTER

MCHN2547	Specialized Tools and Fixtures ...	5
	<u>Humanities Elective</u>	3
	Program Elective.....	3
<u>SPCH 1311</u>	<u>Introduction to Speech</u> <u>Communication</u>	3

SUMMER SESSION

MCHN 2382	CAPSTONE: Cooperative Education II.....	3
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Total Credit Hours:..... 70

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

PMTD PROGRAM ELECTIVES

MCHN 2345	Advanced Machining II.....	3
MCHN 1293	Cost Estimating	2
PLTC 2346	Plastics Processing II.....	3
DFTG 2402	Machine Drafting	4
QCTC 1303	Quality Control	3
INMT 2334	Computerized Numerical Programming	3

Mathematics

Mathematics, Field of Study Associate of Science

The Associate of Science degree with a field of study in Mathematics offers students the opportunity to take a core curriculum of general education with an emphasis in Mathematics. Mathematics majors have many potential career opportunities. They may provide technical assistance in business, engineering science, medicine and many other fields, such as:

- Actuary
- Consultant
- Operations Researcher
- Statistician
- Teacher

MATHEMATICS

Field of Study

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY 15 – 16 Credits

The student is required to take the following 3 courses (12 credits):

- MATH 2413 Calculus I
- MATH 2414 Calculus II
- MATH 2415 Calculus III

The student is required to take a minimum of 1 course (3-4 credits) from the following list:

- MATH 1316 Plane Trigonometry
- MATH 1324 Finite Mathematics
- MATH 1442 Statistics
- MATH 2412 Precalculus Algebra & Trigonometry (pre-requisite for MATH 2413)
- MATH 2418 Linear Algebra
- MATH 2420 Differential Equations

STC CORE CURRICULUM 45 Credits

In addition to the courses in the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 of the catalog.

Field of Study: 15-16

STC Core Curriculum: 45

Total Credit Hours: 60-61

Mathematics Recommended Course Sequence

FIRST YEAR-FALL SEMESTER Credit Hours

HIST 1301	United States History I or HIST 2327	.....3
ENGL 1301	Composition	.....3
COSC 1301	Microcomputer Applications	.....3
MATH 1414	College Algebra	.....4
MATH 1442	Statistics (Optional/Recommended)	.....4

FIRST YEAR - SPRING SEMESTER

SPCH 1311	Intro. to Speech Communication or SPCH 1315or SPCH 1318 or SPCH 1321	.....3
HIST 1302	United States History II or HIST 2328	....3
ENGL 1302	Composition II - Rhetoric	.....3
	Visual & Performing Arts Elective - Core Curriculum	.....3
MATH 2412	Precalculus Algebra & Trigonometry	.....4

FIRST YEAR-SUMMER

MATH 2413	Calculus I	.....4
	Social & Behavioral Science Elective -Core Curriculum	.....3

SECOND YEAR-FALL SEMESTER

GOVT 2301	American Government I	.....3
	Natural Science Elective- Core Curriculum	.....4
MATH 2414	Calculus II	.....4
MATH 2418	Linear Algebra (Optional/ Recommended)	..4

SECOND YEAR-SPRING SEMESTER

GOVT 2302	American Government II	.....3
	Natural Science Elective - Core Curriculum	.....4
	Humanities Elective- Core Curriculum	.....3
MATH 2415	Calculus III	.....4
MATH 2420	Differential Equations (Optional/ Recommended)	.....4

Paralegal

Paralegal

Associate of Applied Science

The Paralegal Associate of Applied Science is a two-year program that prepares men and women for entry-level positions as a paralegal working under the supervision of a lawyer in a law office, government, corporate or other private sector legal setting. The program is designed to provide students with an understanding of the roles and functions of paralegals in law firms and occupational settings. The program offers instruction in basic legal principles and skills applicable to various legal settings. Students develop foundational legal knowledge, training in analytical thinking, and skills in legal research and writing.

ADVISORY COMMITTEE

Frederick J. Biel, Atlas & Hall; *Luanna Castellano*, Gonzalez, Gaytan, Garza & Castillo, L.L.P.; *David E. Cazares*, Attorney, Law Office of David E. Cazares; *Preston Henrichson*, Law Office of Preston Henrichson; *Rachal Maldonado*, Paralegal, Allstate Insurance; *Robert Michelena*, Community Member; *Kathryn Nelson*, Griffith, Sullivan, Ochoa & Garza; *Mary Ellen Stocker*, City of McAllen; *Joy F. Whitne*, Certified Paralegal, Mathis & Donheiser, P.C.; *Greg Lopez*, Loncar & Associates

PARALEGAL

ASSOCIATE OF APPLIED SCIENCE

TSI LIABLE

FIRST SEMESTER **Credit Hours**

POFT 1319	Records and Information Management I...	3
SPAN 2313	Spanish for Spanish Speakers I or ARTS 1301.....	3
POFI 2301	Word Processing	3
LGLA 1307	Introduction to Law and Legal Professions	3
POFT 1301	Business English.....	3

SECOND SEMESTER

POFI 2340	Advanced Word Processing.....	3
LGLA 1303	Legal Research	3
LGLA 1342	Federal Civil Litigation	3
POFT 2312	Business Correspondence and Communication.....	3
	Mathematics/Natural Sciences Elective ..	4

SUMMER SESSION I

LGLA 1344	Texas Civil Litigation	3
SPCH 1321	Business & Professional Speaking....	3

THIRD SEMESTER

ENGL 1301	Composition	3
LGLA 1353	Wills, Trusts & Probate Administration...	3
LGLA 2303	Torts & Personal Injury Law.....	3
LGLA 2313	Criminal Law and Procedures	3
LGLA 1305	Legal Writing	3

FOURTH SEMESTER

LGLA 1355	Family Law.....	3
LGLA 2307	Law Office Management.....	3
LGLA 2311	Business Organizations	3
LGLA 2309	Real Property.....	3
LGLA 2331	Advanced Legal Research and Writing ..	3

SUMMER SESSION II

PSYC 2301	General Psychology	3
LGLA 2266	Practicum: Paralegal.....	2

Total Credit Hours: 72

Identifies courses to fulfill minimum 15 credit hour
General Education Requirement

Physics

Physics, Field of Study

Associate of Science

The Associate of Science degree with a field of study in Physics offers students the opportunity to take a core curriculum of general education with an emphasis in Physics. Physics students may select a career in a wide range of scientific and technical fields. The student should bear in mind that most of these career areas require education or training beyond the Associate of Science degree. Career fields available to the physics student include:

- Astronomy
- Chemistry
- Elementary or Secondary Education
- Geophysics
- Medicine
- Patent Law
- Seismology
- Biophysics
- Computer Science
- Engineering - Civil, Electrical, Industrial
- Hydrogeology
- Meteorology
- Physics

PHYSICS, Field of Study

ASSOCIATE OF SCIENCE

TSI LIABLE

FIELD OF STUDY 16 Credits

- MATH2412 Precalculus Algebra
and Trigonometry
MATH2413 Calculus I
PHYS 2425 University Physics I
PHYS 2426 University Physics II

STC CORE CURRICULUM 45 Credits

In addition to the courses in the Field of Study, the student is required to take 45 hours from the STC Core Curriculum listed on page 100 in the Catalog. **Students must take PHYS 1401 – College Physics I and PHYS 1402 – College Physics II to fulfill the Natural Sciences component of the Core Curriculum.**

Field of Study: 16

STC Core Curriculum: 45

Total Credit Hours: 61

Physics

Recommended Course Sequence

FIRST SEMESTER Credit Hours

- SPCH 1311 Intro. to Speech Communication
or SPCH 1315 or SPCH 1318
or SPCH 13213
ENGL 1301 Composition3
COSC 1301 Microcomputer Applications3
MATH1414 College Algebra4

SECOND SEMESTER

- ENGL 1302 Composition II - Rhetoric3
PHYS 1401 College Physics I4
MATH2412 Precalculus Algebra and
Trigonometry4
Visual & Performing Arts Elective-
Core Curriculum3

SUMMER SESSION

- MATH2413 Calculus I4
PHYS 1402 College Physics II4

THIRD SEMESTER

- HIST 1301 United States History I
or HIST 23273
GOVT 2301 American Government I3
PHYS 2425 University Physics I4
Social & Behavioral Science
Elective - Core Curriculum3

FOURTH SEMESTER

- HIST 1302 United States History II
or HIST 23283
GOVT 2302 American Government II3
Humanities Elective-
Core Curriculum3
PHYS 2426 University Physics II4