

ASSOCIATE OF APPLIED SCIENCE DEGREES AND CERTIFICATES CAREER FIELDS & TECHNOLOGY PROGRAMS

GRADUATION REQUIREMENTS

Temple College awards degrees and certificates during the Spring, Summer, and Fall semesters. Although there are three different semesters in which a student may graduate, Temple College only holds one formal graduation ceremony a year. This ceremony is held at the end of the Spring semester. This ceremony is for students who will meet degree requirements during that semester as well as those students who have graduated during the preceding Summer or Fall semesters. In order to be eligible to participate in the ceremony, students must complete the Application for Graduation and indicate their desire to participate in the ceremony.

Students will be considered as a candidate for graduation only upon completion of the Application for Graduation. Students must submit the application for graduation by the following deadline dates: Spring–February 1, Summer–June 1, and Fall–October 1. If the first of the month falls on a holiday or a weekend, the deadline date will be extended to the next business day. Students who do not submit their paperwork by these dates will be charged a \$30.00 late fee. The last day to submit a late application for graduation for a term is four weeks before the last regular class day of the term. Students who do not apply by the deadline dates will not be considered for graduation for that term and will need to submit an application for the next graduation date.

REQUIREMENTS FOR ASSOCIATE DEGREES

1. Completion of all admission requirements. All required documents must be on file.
2. Completion of all degree requirements of the catalog in effect at the time students originally entered TC or any subsequent catalogs in effect as long as the students have been continuously enrolled and provided they meet the requirements within four years from the date they first enrolled under that catalog. Students who are not continuously enrolled or who do not finish within the four-year time limit must meet degree requirements of the current catalog year.
3. Completion of last 18 semester hours of work at Temple College or a total of 32 semester hours of work at Temple College applicable toward the degree.
4. Completion of all coursework required for the degree with a minimum 2.0 cumulative grade-point average.
5. Completion of all financial obligations.
6. Completion of the core curriculum for each degree as listed in this catalog.
7. Completion of all Texas Success Initiative (TSI) requirements. Students will not be eligible for graduation until all TSI requirements have been met.
8. Completion of the Application for Graduation by deadline date.

REQUIREMENTS FOR CERTIFICATES

1. Completion of all admission requirements. All required documents must be on file.
2. Completion of all certificate requirements of the catalog in effect at the time students originally entered TC or any subsequent catalog in effect as long as students have been continuously enrolled and provided they meet the requirements with four years from the date they first enrolled under that catalog. Students who are not continuously enrolled or who do not finish within the four-year time-limit must meet degree requirements of the current catalog year.
3. Completion of all course work required for the certificate with a minimum 2.0 cumulative grade-point average.
4. Completion of all financial obligations.
5. Completion of all Texas Success Initiative (TSI) requirements if students are graduating with a level-two certificate.
6. Completion of the Application for Graduation by deadline date.
7. Completion of the requirements check by the Technical Department Chairman. It is the student's responsibility to contact the department for the requirements check.

ASSOCIATE OF APPLIED SCIENCE DEGREE

In order to graduate from Temple College and receive the Associate of Applied Science degree the student must complete 15 hours of general core courses. See your Program of Study for specific requirements.

COURSES	Sem. Cr. Hr.
ENGLISH 1301 and 2311	6
(Or 1302 and SPEECH 1311, 1315, 1318, OR 1321)	
HUMANITIES/FINE ARTS	
Art, Drama/Theater, History 2311 or 2312, Humanities, Literature, Music, and Philosophy (excluding Logic)	3
MATH/NATURAL SCIENCE	
Academic Math or Science (of at least 3 hours)	3
SOCIAL/BEHAVIORAL SCIENCE	
Anthropology, Economics, Geography, Government, Psychology, or Sociology	3
COURSES	
* Course work from the student's specific major	45
Total hours	60

Note: Students must complete at least 60 to 72 semester hours of course credit, dependent on specific program requirements, exclusive of developmental level courses, with a "C" or better average on all hours attempted. Some technical programs have additional specific grade requirements for their majors. These are listed in this catalog under specific programs in which the Associate of Applied Science degree is conferred.

*Included in the 60-72 hours of course work should be all of the prescribed requirements for the specific technical degree program for which the student is enrolled. These requirements are listed in this catalog under specific programs in which an Associate of Applied Science degree is conferred.

To receive an AAS degree, the student must have completed the last 18 semester hours of the work toward graduation at Temple College or have earned a total of 32 semester hours of TC work applicable toward the graduation requirements.

For any variation from these prescribed requirements to be counted toward graduation, a written statement waiving that requirement and signed by the Vice President of Educational Services must be on file in the student's record folder.

AAS TECHNICAL COURSE ABBREVIATIONS**Biotechnology**

BITC

Business/Business Management

ACNT

BMGT

BUSG

HRPO

MRKG

POFT

Child Development: Technical

CDEC

Computer-Aided Design

DFTG

SRVY

Geographic Information Systems

GISC

SRVY

Computer Information System: Technical

ARTV

CPMT

IMED

ITNW

ITSC

ITSE

ITSW

ITSY

Criminal Justice: Technical

CJCR

CJLE

CJSA

HMSY

SLPS

Dental Hygiene

DHYG

Education: Technical

EDTC

Emergency Medical Services Professionals

EMSP

Music

MUSC

Nursing

RNSG

VNSG

Respiratory Care

RSPT

Surgical Technology

SRGT

CAREER FIELDS AND TECHNOLOGY PROGRAMS

CAREER FIELDS

Business/General	69-71
Business/Management	71-73
Child Development	74-76
Computer-Aided Design	77
Computer Information Systems	78-86
Criminal Justice	87-88
Educational Personnel	89
Geographic Information Systems	90-91

HEALTH PROFESSIONS

Biotechnology	93-96
Dental Hygiene	97-98
Diagnostic Medical Sonography	99-102
Emergency Medical Services Professions	103-107
Nursing	108-118
Respiratory Care	119-120
Surgical Technology	121

TECH PREP

Tech Prep allows students to earn college credit while in high school. The Tech Prep multi-year planned sequence of study for a technical field begins in high school and extends through one or two years of a Temple College technical occupational program following the high school instruction, and results in a certificate or associate degree. Temple College's Tech Prep program also provides students with the opportunity to transfer to a university.

Tech Prep requires a formal and program-specific articulation agreement between the high school and Temple College. The articulation agreement is a commitment for school districts and Temple College to jointly develop and implement Tech Prep curricula and instruction. Tech Prep prepares students for direct entry into the workplace as technically skilled employees or, with appropriate arrangements, for further education leading to baccalaureate and advanced degrees.

Students are encouraged to contact their high school career and technology teacher or counselor for Tech Prep programs in their high school that are approved by the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB).

The steps a student should follow to participate in Tech Prep are:

1. Pick a career path from one of the occupational clusters while in high school; Health Science Professions, Business/Office Professions, Industry/Technology, Personal/Protective Services.
2. Register while in high school to take Tech Prep course work during the junior or senior year;

After high school graduation,

3. Enroll in the Tech Prep program at Temple College that offers the appropriate career pathway and articulate high school Tech Prep course work into college course work.
4. File a degree plan and complete the college course work for the certificate or associate degree program.

Temple College has articulated in conjunction with independent school districts the following career and technical programs:

- Biotechnology
- Child Development
- Computer-Aided Design
- Computer Information Systems: Computer Technology – Entertainment and Business Software Development
- Computer Information Systems: Computer Technology - Computer Applications Technology
- Computer Information Systems: Computer Technology - Network Administration Option
- Computer Information Systems: Computer Technology - Repair Technician Option
- Computer Information Systems: Computer Technology - Web Technology
- Criminal Justice
- General Business
- Geographic Information Systems
- Management

For more information about Tech Prep career preparation programs at Temple College, contact your high school career and technology teacher or counselor or Temple College's Tech Prep office.

BUSINESS/GENERAL
ASSOCIATE OF APPLIED SCIENCE DEGREE
General Business

FIRST YEAR**First Semester**

ACNT 1303	Introduction to Accounting I.....	3
ENGL 1301	Composition I.....	3
HRPO 1311	Human Relations	3
HRPO 2301	Human Resource Management	3
POFT 1429	Beginning Keyboarding	4
Elective	Technical	3
	Total Hours	19

Second Semester

ACNT 1311	Introduction to Computerized Accounting	3
BMGT 1325	Office Management	3
BUSI 1301	Business Principles	3
ENGL 2311	Technical & Business Writing.....	3
POFT 2401	Intermediate Keyboarding	4
	Total Hours	16

SECOND YEAR**Third Semester**

ACCT 2401	Principles of Accounting I - Financial.....	4
BCIS 1405	Business Computer Applications or ITSC 1309.....	3-4
BUSI 1307	Personal Finance.....	3
BUSI 2301	Business Law	3
BMGT 1341	Business Ethics	3
	Total Hours	16-17

Fourth Semester

ACCT 2402	Principles of Accounting II - Managerial	4
BUSI 2302	Legal Environment of Business	3
MATH 1332	Contemporary Mathematics I or Science.....	3
Elective	Social/Behavioral Science	3
Elective	Humanities/Fine Arts.....	3
	Total	16
	Grand Total.....	67-68

SUGGESTED TECHNICAL ELECTIVES

BMGT 1301	Supervision
BMGT 1327	Principles of Management
BMGT 2309	Leadership
BUSG 1301	Introduction to Business
BUSG 2309	Small Business Management
HRPO 2307	Organizational Behavior
ITSC 1315	Project Management Software
ITSW 1304	Introduction to Spreadsheets
ITSW 1307	Introduction to Database
ITSW 1310	Introduction to Presentation Graphics Software
ITSW 2337	Advanced Database
MRKG 1302	Principles of Retailing
MRKG 1311	Principles of Marketing
MRKG 1313	Public Relations
MRKG 2349	Advertising and Sales Promotion
POFT 1301	Business English
POFT 1309	Administrative Office Procedures I
POFT 2312	Business Correspondence and Communication

SUGGESTED SOCIAL/BEHAVIORAL SCIENCE ELECTIVES

ANTH	Anthropology
ECON	Economics
GEOG	Geography
PSYC	Psychology
SOCI	Sociology

SUGGESTED HUMANITIES/FINE ARTS ELECTIVES

ARTS	1301	Art Appreciation
ARTS	1303	Art History I
HUMA	1301	Introduction to Humanities I
HUMA	1302	Introduction to Humanities II
MUSI	1306	Music Appreciation
MUSI	1310	American Music
PHIL	2306	Introduction to Ethics

**LEVEL - I CERTIFICATE (TSI WAIVED)
Administrative Assistant**

First Semester

BCIS	1405	Business Computer Applications.....	4
HRPO	1311	Human Relations	3
POFT	1301	Business English.....	3
POFT	1309	Administrative Office Procedures I	3
POFT	1429	Beginning Keyboarding	4
		Total Hours	17

Second Semester

BMGT	1325	Office Management	3
POFT	1313	Professional Development for Office Personnel.....	3
POFT	2312	Business Correspondence and Communication	3
POFT	2401	Intermediate Keyboarding	4
Elective		Technical	3
Elective		Technical	3
		Total Hours	19
		Grand Total	36

SUGGESTED TECHNICAL ELECTIVES

ACNT	1303	Introduction to Accounting I
ACNT	1311	Introduction to Computerized Accounting
BMGT	1301	Supervision
BMGT	1327	Principles of Management
BMGT	1341	Business Ethics
BMGT	2309	Leadership
BUSG	1301	Introduction to Business
BUSG	2309	Small Business Management
HRPO	2301	Human Resource Management
IMED	1316	Web Design I
IMED	2309	Internet Commerce
ITSC	1315	Project Management Software
ITSW	1304	Introduction to Spreadsheets
ITSW	1307	Introduction to Database
ITSW	1310	Introduction to Presentation Graphics Software
ITSW	2337	Advanced Database
MRKG	1302	Principles of Retailing
MRKG	1311	Principles of Marketing
MRKG	1313	Public Relations
MRKG	2349	Advertising and Sales Promotion
POFT	1380	Cooperative Education

**LEVEL - I CERTIFICATE (TSI WAIVED)
Office Management**

First Semester

BMGT	1382	Cooperative Education I.....	3
HRPO	1311	Human Relations	3
HRPO	2301	Human Resource Management	3
BMGT	1341	Business Ethics	3
Elective		Technical	3
		Total Hours	15

Second Semester

BMGT 1301	Supervision.....	3
BMGT 1327	Principles of Management.....	3
BMGT 1325	Office Management	3
BMGT 1383	Cooperative Education II.....	3
Elective	Technical	3
	Total Hours	15

Third Semester

BMGT 2382	Cooperative Education III.....	3
	Grand Total	33

SUGGESTED TECHNICAL ELECTIVES

ACNT 1303	Introduction to Accounting I
ACNT 1311	Introduction to Computerized Accounting
BCIS 1405	Business Computer Applications
BMGT 2309	Leadership
BUSG 1301	Introduction to Business
BUSG 2309	Small Business Management
HRPO 2307	Organizational Behavior
MRKG 1302	Principles of Retailing
MRKG 1311	Principles of Marketing
MRKG 1313	Public Relations
MRKG 2349	Advertising and Sales Promotion
IMED 1316	Web Design I
ITSC 1309	Integrated Software Applications I
ITSC 1315	Project Management Software
ITSW 1304	Introduction to Spreadsheets
ITSW 1307	Introduction to Database
ITSW 1310	Introduction to Presentation Graphics Software
ITSW 2337	Advanced Database
POFT 1301	Business English
POFT 1309	Administrative Office Procedures I
POFT 1429	Beginning Keyboarding
POFT 2312	Business Correspondence and Communication
POFT 2401	Intermediate Keyboarding

BUSINESS/MANAGEMENT
ASSOCIATE OF APPLIED SCIENCE DEGREE
Management

The curriculum in management is designed to develop the fundamental skills, knowledge, attitude, and experience which combines academic training with practical on-the-job training compatible with the student's career objective. Students will be allowed to take only one Cooperative Education Course each semester.

FIRST YEAR**First Semester**

BMGT 1382	Cooperative Education I.....	3
BUSG 1301	Introduction to Business	3
ENGL 1301	Composition I.....	3
MRKG 1311	Principles of Marketing	3
POFT 1429	Beginning Keyboarding	4
	Total Hours	16

Second Semester

BMGT 1301	Supervision.....	3
BMGT 1327	Principles of Management.....	3
BMGT 1383	Cooperative Education II.....	3
ENGL 2311	Technical & Business Writing.....	3
Elective	Business/Management.....	3
	Total Hours	15

SECOND YEAR**Third Semester**

BCIS 1405	Business Computer Applications or ITSC 1309.....	3-4
BMGT 2382	Cooperative Education III.....	3

HRPO 2301	Human Resource Management	3
HRPO 2307	Organizational Behavior	3
Elective	Free Elective	3
	Total Hours	15-16
Fourth Semester		
BMGT 1341	Business Ethics	3
BMGT 2309	Leadership	3
MATH 1332	Contemporary Mathematics I or Science.....	3
Elective	Social/Behavioral Science	3
Elective	Humanities/Fine Arts.....	3
Elective	Free Elective	3
	Total Hours	18
	GRAND TOTAL	64-65

SUGGESTED BUSINESS/MANAGEMENT ELECTIVES

ACNT 1303	Introduction to Accounting I
ACNT 1311	Introduction to Computerized Accounting
BMGT 1305	Communications in Management
BMGT 1325	Office Management
BMGT 2303	Problem Solving and Decision Making
BMGT 2331	Principles of Quality Management
BMGT 2341	Strategic Management
BUSG 2309	Small Business Management
HRPO 1311	Human Relations
MRKG 1302	Principles of Retailing
MRKG 1313	Public Relations
MRKG 2349	Advertising and Sales Promotion

SUGGESTED SOCIAL/BEHAVIORAL SCIENCE ELECTIVES

ANTH	Anthropology
ECON	Economics
GEOG	Geography
PSYC	Psychology
SOCI	Sociology

**LEVEL I - CERTIFICATE (TSI WAIVED)
Management**

First Semester		
BMGT 1382	Cooperative Education I.....	3
BUSG 1301	Introduction to Business	3
HRPO 2307	Organizational Behavior	3
MRKG 1311	Principles of Marketing	3
Elective	Business/Management.....	3
	Total Hours	15
Second Semester		
BMGT 1301	Supervision.....	3
BMGT 1327	Principles of Management.....	3
BMGT 1383	Cooperative Education II.....	3
BMGT 2309	Leadership	3
	Total Hours	12
Third Semester		
BMGT 2382	Cooperative Education III	3
	GRAND TOTAL	30

SUGGESTED ELECTIVES

ACNT 1303	Introduction to Accounting I
ACNT 1311	Introduction to Computerized Accounting
BMGT 1305	Communications in Management
BMGT 1325	Office Management
BMGT 1341	Business Ethics
BMGT 2303	Problem Solving and Decision Making
BMGT 2331	Principles of Quality Management
BMGT 2341	Strategic Management
BUSG 2309	Small Business Management
HRPO 1311	Human Relations
HPRO 2301	Human Resource Management

MRKG	1302	Principles of Retailing
MRKG	1313	Public Relations
MRKG	2349	Advertising and Sales Promotion

LEVEL I - CERTIFICATE (TSI WAIVED)
Small Business Management

First Semester

BMGT	1382	Cooperative Education I.....	3
HRPO	2301	Human Resource Management	3
MRKG	1311	Principles of Marketing	3
MRKG	1313	Public Relations.....	3
Elective		Business/Management.....	3
		Total Hours	15

Second Semester

BMGT	1383	Cooperative Education II.....	3
MRKG	2349	Advertising and Sales Promotion.....	3
BUSG	2309	Small Business Management.....	3
BMGT	1341	Business Ethics	3
		Total Hours	12

Third Semester

BMGT	2382	Cooperative Education III.....	3
		GRAND TOTAL	30

SUGGESTED BUSINESS/MANAGEMENT ELECTIVES

ACNT	1303	Introduction to Accounting I
ACNT	1311	Introduction to Computerized Accounting
BMGT	1301	Supervision
BMGT	1327	Principles of Management
BMGT	1305	Communications in Management
BMGT	1325	Office Management
BMGT	2303	Problem Solving and Decision Making
BMGT	2309	Leadership
BMGT	2331	Principles of Quality Management
BMGT	2341	Strategic Management
BUSG	1301	Introduction to Business
HRPO	1311	Human Relations
HRPO	2307	Human Resource Management
MRKG	1302	Principles of Retailing

ASSOCIATE OF APPLIED SCIENCE DEGREE**Child Development**

*Students planning to continue at a senior college or university should take TECA courses.

First Semester

ENGL	1301	Composition I.....	3
CDEC	1311	Educating Young Children* or TECA 1311	3
CDEC	1354	Child Growth and Development* or TECA 1354	3
CDEC	1358	Creative Arts for Early Childhood	3
CDEC	1421	The Infant and Toddler.....	4
		Total Hours	16

Second Semester

ENGL	2311	Technical and Business Writing.....	3
CDEC	1303	Families, School and Community* or TECA 1303	3
CDEC	1413	Curriculum Resources for Early Childhood Programs	4
CDEC	1419	Child Guidance.....	4
CDEC	2307	Math and Science for Early Childhood	3
Elective		Child Development Elective	3
		Total Hours	20

SECOND YEAR**First Semester**

CDEC	1356	Emergent Literacy for Early Childhood	3
CDEC	1359	Children with Special Needs.....	3
CDEC	2326	Administration of Programs for Children I	3
Elective		Fine Arts or Humanities.....	3
Elective		Social/Behavioral Science	3
		Total Hours	15

Second Semester

MATH	1332	Contemporary Mathematics I	3
CDEC	1318	Wellness of the Young Child* or TECA 1318	3
CDEC	2364	Practicum – Child Development	3
CDEC	2441	The School-Age Child.....	4
CDEC	2315	Diverse Cultural/Multilingual Education	3
		Total Hours	16
		GRAND TOTAL	67

Suggested Child Development Electives

CDEC	1317	Child Development Associate Training I
CDEC	1343	Independent Study in Child Development
CDEC	2322	Child Development Associate Training II
CDEC	2324	Child Development Associate Training III
CDEC	2328	Administration of Programs for Children II
ITSC	1309	Integrated Software Applications I**

*Equivalent TECA course may be substituted

** Equivalent BCIS or COSC may be substituted.

CHILD DEVELOPMENT
 Early Childhood Education
LEVEL - I CERTIFICATE (TSI WAIVED)
 Child Development/Early Childhood Certificate

FIRST YEAR**First Semester**

CDEC	1311	Educating Young Children* or CDEC 1317	3
CDEC	1354	Child Growth and Development*	3
CDEC	1356	Emergent Literacy for Early Childhood	3
CDEC	1358	Creative Arts for Early Childhood or CDEC 2324	3
CDEC	1421	The Infant and Toddler.....	4
		Total Hours	16

Second Semester

CDEC	1318	Wellness of the Young Child* or CDEC 2322.....	3
CDEC	1413	Curriculum Resources for Early Childhood Programs	4
CDEC	1419	Child Guidance.....	4
CDEC	2307	Math and Science for Early Childhood	3
Elective		Child Development.....	3-4
		Total Hours	17-18
		GRAND TOTAL	33-34

*Equivalent TECA course may be substituted.

Suggested Child Development Electives

CDEC	1303	Families, School and Community*
CDEC	1317	Child Development Associate Training I
CDEC	1359	Children with Special Needs
CDEC	2315	Diverse Cultural/Multilingual Education
CDEC	2322	Child Development Associate Training II
CDEC	2324	Child Development Associate Training III
CDEC	2441	The School Age Child
ITSC	1309	Integrated Software Applications I**

*Equivalent TECA course may be substituted.

** Equivalent BCIS or COSC may be substituted.

LEVEL - I CERTIFICATE (TSI WAIVED)
Administration Certificate in Child Development

FIRST YEAR**First Semester**

CDEC	1311	Educating Young Children*	3
CDEC	1354	Child Growth and Development*	3
CDEC	1359	Children with Special Needs.....	3
CDEC	1421	The Infant and Toddler.....	4
CDEC	2326	Administration of Programs for Children I	3
		Total Hours	16

Second Semester

CDEC	1318	Wellness of the Young Child*	3
Elective		Child Development Elective	3
CDEC	1413	Curriculum Resources for Early Childhood Programs	4
CDEC	1419	Child Guidance.....	4
CDEC	2328	Administration of Programs for Children II	3
BMGT	1301	Supervision.....	3
		Total Hours	20
		GRAND TOTAL	36

Suggested Child Development Electives

CDEC	1303	Families, School and Community*
CDEC	1317	Child Development Associate Training I
CDEC	1356	Emergent Literacy for Early Childhood
CDEC	1358	Creative Arts for Early Childhood
CDEC	2307	Math and Science for Early Childhood
CDEC	2315	Diverse Cultural/Multilingual Education
CDEC	2322	Child Development Associate Training II
CDEC	2324	Child Development Associate Training III
CDEC	2441	The School Age Child
ITSC	1309	Integrated Software Applications I**

*Equivalent TECA course may be substituted

** Equivalent BCIS or COSC may be substituted.

**THE CHILD DEVELOPMENT ASSOCIATE NATIONAL
 CREDENTIALING PROGRAM (CDA)**

Training is provided for individuals interested in the CDA Credential. The program focuses on the skills of care and education of the young child and is designed to provide performance based training, assessment, and credentialing of childcare staff, home visitors, and family child care providers. The CDA Program represents a national effort to credential qualified caregivers/teachers who work with children from birth through age five.

CDEC	1317	Child Development Associate Training I.....	3
CDEC	2322	Child Development Associate Training II	3
CDEC	2324	Child Development Associate Training III	3

A passing grade in CDA I, II, III does not guarantee the CDA credential will be awarded to the candidate. The council for Early Childhood Professional Recognition headquartered in Washington, D.C. awards the CDA Credential.

Students who have passed with a C or better, CDEC 1317, CDEC 2322, and CDEC 2324 and have been awarded the CDA credential and wish to continue Child Development certificate or degree programs, may substitute the three associate training courses for the following three courses: CDEC 1311 Educating Young Children; CDEC 1318 Wellness of the Young Child; and/or CDEC 1358 Creative Arts for Early Childhood.

COMPUTER-AIDED DESIGN
ASSOCIATE OF APPLIED SCIENCE DEGREE
 Computer-Aided Design

The Computer-Aided Design (CAD) program is designed to give students entry-level design skills in five areas. These are manufacturing, electronics, architecture, civil engineering, and geographic information systems.

Drawings are produced using sketching techniques and/or CAD software. Applications software used in this program includes Pro/ENGINEER®, AutoCAD®, ArcView GIS®, and Microsoft Office.

FIRST YEAR**First Semester**

DFTG 1305	Technical Drafting.....	3
DFTG 1309	Basic Computer-Aided Drafting.....	3
ENGL 1301	Composition I.....	3
GISC 1311	Introduction to Geographic Information Systems (GIS) .	3
ITSC 1309	Integrated Software Applications I or Technical Elective	3
SRVY 1315	Surveying Calculations	3
	Total	18

Second Semester

DFTG 1317	Architectural Drafting-Residential.....	3
DFTG 1358	Electrical/Electronics Drafting	3
DFTG 2302	Machine Drafting.....	3
DFTG 2319	Intermediate Computer-Aided Drafting.....	3
DFTG 2321	Topographical Drafting.....	3
ENGL 2311	Technical & Business Writing.....	3
	Total	18

SECOND YEAR**Third Semester**

DFTG 2308	Instrumentation Drafting.....	3
DFTG 2312	Technical Illustration & Presentation or ARTC 1313	3
DFTG 2328	Architectural Drafting-Commercial	3
ITSC 1315	Project Management Software.....	3
Elective	MATH	3
Elective	Humanities/Fine Arts	3
	Total	18

Fourth Semester

DFTG 2330	Civil Drafting.....	3
DFTG 2340	Solid Modeling/Design.....	3
DFTG 2350	Geometric Dimensioning and Tolerancing	3
Elective	Social or Behavioral Science.....	3
Elective	Program Related	3
	Total Hours	15
	GRAND TOTAL	69

SUGGESTED PROGRAM RELATED ELECTIVES

GISC 2320	Intermediate Geographic Information Systems
ENVR 1301	Environmental Science
DFTG 2306	Machine Design
DFTG 2438	Final Project-Advanced Drafting
DFTG 2380	Cooperative Education-Drafting and Design Technology/Technician, General
SRVY 1301	Introduction to Surveying

LEVEL I – CERTIFICATE (TSI WAVED)
 Computer-Aided Design

The Computer-Aided Design Certificate is designed to train experienced and aspiring professionals in various engineering fields to use CAD® software to produce designs, drawings, illustrations, and presentations.

FIRST YEAR**First Semester**

DFTG 1305	Technical Drafting.....	3
DFTG 1309	Basic Computer-Aided Drafting.....	3
GISC 1311	Introduction to Geographic Information Systems (GIS) .	3
ITSC 1309	Integrated Software Applications I or Technical Elective*	3

SRVY	1315	Surveying Calculations	3
		Total	15
Second Semester			
DFTG	1317	Architectural Drafting-Residential.....	3
DFTG	1358	Electrical/Electronics Drafting	3
DFTG	2302	Machine Drafting.....	3
DFTG	2319	Intermediate Computer-Aided Drafting.....	3
DFTG	2321	Topographical Drafting.....	3
		Total	15
		GRAND TOTAL	30

COMPUTER INFORMATION SYSTEMS

This curriculum in Computer Information Systems is designed to develop the fundamental skills, knowledge, and experience which prepares the student for positions in the field of computer information systems and their use on the job. The program combines classroom lecture along with the hands-on experience to give the students practical knowledge of computer systems. Students may pursue a Certificate of Completion or the Associate Degree in several areas.

Note: For all degrees and certificates, students who lack keyboarding skills and/or did not pass the reading portion of the Texas Success Initiative should take POFT 1429 Beginning Keyboarding, prior to enrolling in the program.

ASSOCIATE OF APPLIED SCIENCE DEGREE COMPUTER TECHNOLOGY Computer Applications Technology

FIRST YEAR

First Semester

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSE	1329	Programming Logic and Design*	3
ENGL	1301	Composition I.....	3
ITSC	1309	Integrated Software Applications I*	3
Elective		Social/Behavioral Science	3
		Total Hours	15-16

Second Semester

ITSE	1331	Introduction to Visual BASIC Programming*	3
ITSW	1301	Introduction to Word Processing	3
IMED	1316	Web Design I	3
ITSC	1315	Project Management Software.....	3
ENGL	2311	Technical and Business Writing or ENGL 1302**	3
BMGT	1327	Principles of Management.....	3
		Total Hours	18

SECOND YEAR

Third Semester

ITSC	1305	Introduction to PC Operating Systems.....	3
ITSE	1350	System Analysis and Design*	3
ITSW	1307	Introduction to Database	3
ITSW	1310	Introduction to Presentation Graphics Software or ARTC 1313	3
Elective		Technical	3
		Total Hours	15

Fourth Semester

ITSW	1304	Introduction to Spreadsheets.....	3
ITSC	2486	Internship – Computer & Information Sciences, General	4
Elective		Humanities/Fine Arts.....	3
Elective		MATH (College Level)	3
Elective		Technical	3
Elective		Technical	3
		Total Hours	19
		GRAND TOTAL	67-68

*Equivalent COSC or BCIS course may be substituted.

**Speech 1311, 1321, 1318, or 1315 must be taken also if the student chooses ENGL 1302

SUGGESTED TECHNICAL ELECTIVES

ARTC	1313	Digital Publishing I
ARTC	1325	Introduction to Computer Graphics
ARTV	1351	Digital Video
CPMT	1311	Intro to Computer Maintenance
CPMT	1345	Computer Systems Maintenance
CPMT	2449	Advanced Computer Networking Technology
IMED	2309	Internet Commerce
IMED	2311	Portfolio Development
IMED	2315	Web Design II
ITNW	1325	Fundamentals of Networking Technologies
ITNW	1454	Implementing and Supporting Servers
ITNW	1458	Network +
ITNW	2405	Network Administration
ITNW	2413	Networking Hardware
ITNW	2415	Wide Area Networks
ITSE	1356	Extensible Markup Language (XML)
ITSE	1402	Computer Programming
ITSE	1407	Introduction to C + + Programming
ITSE	2417	JAVA Programming
ITSE	2431	Advanced C + + Programming
ITSE	2449	Advanced Visual BASIC Programming
ITSE	2457	Advanced Object-Oriented Programming
ITSW	2337	Advanced Database

LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY
Computer Application Specialist

First Semester

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSC	1309	Integrated Software Applications I*	3
ITSW	1310	Introduction to Presentation Graphics Software or ARTC 1313	3
ITSW	1307	Introduction to Database	3
ITSW	1301	Introduction to Word Processing	3
ITSW	1304	Introduction to Spreadsheets	3
		GRAND TOTAL	18-19

*Equivalent COSC or BCIS course may be substituted

LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY
Database Specialist

First Semester

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSC	1309	Integrated Software Applications I*	3
ITSE	1329	Programming Logic and Design*	3
ITSW	1307	Introduction to Database	3
		Total Hours	12-13

Second Semester

ITSC	1315	Project Management Software	3
ITSE	1331	Introduction to Visual BASIC Programming*	3
ITSW	2337	Advanced Database (Oracle)	3
GISC	1311	Introduction to Geographic Information Systems (GIS)	3
Elective		Technical	3
		Total Hours	15
		GRAND TOTAL	27-28

*Equivalent COSC or BCIS course may be substituted.

SUGGESTED TECHNICAL ELECTIVES

ARTC	1325	Introduction to Computer Graphics
IMED	2311	Portfolio Development

ITNW	1325	Fundamentals of Networking Technologies
ITSW	1310	Introduction to Presentation Graphics Software
CPMT	2449	Advanced Computer Networking Technology

**LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY
Security Option**

First Semester

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSE	1331	Introduction to Visual BASIC Programming*	3
ITSC	1305	Introduction to PC Operating System	3
ITNW	1458	Network +	4
Elective		Technical	3
		Total Hours	16-17

Second Semester

ITSC	1315	Project Management Software.....	3
ITSY	2400	Operating System Security or CPMT 2449.....	4
ITSY	2301	Firewalls and Network Security.....	3
ITSY	2441	Security Management Practices.....	4
		Total Hours	14
		GRAND TOTAL	30-31

*Equivalent COSC or BCIS course may be substituted.

SUGGESTED TECHNICAL ELECTIVES

ARTC	1325	Introduction to Computer Graphics
IMED	2311	Portfolio Development
ITNW	1325	Fundamentals of Networking Technologies
ITSW	1310	Introduction to Presentation Graphics Software
CPMT	2449	Advanced Computer Networking Technology

**LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY
Computer Applications Technology**

FIRST YEAR

First Semester

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSE	1329	Programming Logic and Design*	3
ITSC	1309	Integrated Software Applications I*	3
IMED	1316	Web Design I	3
ITSE	1331	Introduction to Visual BASIC Programming*	3
		Total Hours	15-16

Second Semester

ITSW	1301	Introduction to Word Processing	3
ITSC	1305	Introduction to PC Operating Systems	3
ITSC	1315	Project Management Software.....	3
ITSW	1310	Introduction to Presentation Graphics Software or ARTC 1313	3
ITSW	1307	Introduction to Database	3
ITSW	1304	Introduction to Spreadsheets.....	3
		Total Hours	18
		GRAND TOTAL	33-34

*Equivalent COSC or BCIS course may be substituted

**ASSOCIATE OF APPLIED SCIENCE DEGREE
COMPUTER TECHNOLOGY
Repair Technician Option**

FIRST YEAR**First Semester**

ITSC 1301	Introduction to Computers or BCIS 1405	3-4
ITSE 1329	Programming Logic and Design*	3
CPMT 1311	Introduction to Computer Maintenance.....	3
ITSC 1305	Introduction to PC Operating Systems	3
ENGL 1301	Composition I.....	3
	Total Hours	15-16

Second Semester

ITSE 1331	Introduction to Visual BASIC Programming*	3
ITSC 1315	Project Management Software.....	3
CPMT 1345	Computer System Maintenance***	3
ITNW 1458	Network +	4
ENGL 2311	Technical and Business Writing or ENGL 1302 Composition II**	3
Elective	Technical	3
	Total Hours	19

SECOND YEAR**Third Semester**

ITSE 1350	System Analysis and Design*	3
BMGT 1327	Principles of Management.....	3
CPMT 2449	Advanced Computer Networking Technology	4
Elective	Social/Behavior Science.....	3
Elective	MATH (College Level)	3
	Total Hours	16

Fourth Semester

Elective	Technical	3
ITSC 2486	Internship – Computer & Information Sciences, General	4
Elective	Humanities/Fine Arts	3
Elective	Technical	3
Elective	Technical	3
	Total Hours	16
	GRAND TOTAL	66-67

*Equivalent COSC or BCIS course may be substituted.

**Speech 1311, 1321, 1318, or 1315 must be taken also if the student chooses ENGL 1302

*** Class must be taken in semester /order indicated.

SUGGESTED TECHNICAL ELECTIVES

ARTC 1313	Digital Publishing I
ARTC 1325	Introduction to Computer Graphics
CPMT 2402	Home Technology Integration
CPMT 2445	Computer System Troubleshooting
CPMT 2449	Advanced Computer Networking Technology
IMED 1316	Web Design I
IMED 2309	Internet Commerce
IMED 2311	Portfolio Development
IMED 2315	Web Design II
ITNW 1325	Fundamentals of Networking Technologies
ITNW 2405	Network Administration
ITNW 2413	Networking Hardware
ITNW 2415	Wide Area Networks
ITSE 1407	Introduction to C + + Programming
ITSE 2417	JAVA Programming
ITSE 2431	Advanced C + + Programming
ITSE 2449	Advanced Visual BASIC Programming
ITSE 2457	Advanced Object-Oriented Programming
ITSW 1304	Introduction to Spreadsheets
ITSW 1307	Introduction to Database
ITSW 1310	Introduction to Presentation Media Software
ITSW 2337	Advanced Database

LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY
Repair Technician Option

FIRST YEAR**First Semester**

ITSE	1329	Programming Logic and Design	3
CPMT	1311	Introduction to Computer Maintenance	3
ITNW	1458	Network +	4
ITSC	1305	Introduction to PC Operating Systems	3
		Total Hours	13

Second Semester

CPMT	1345	Computer System Maintenance	3
BMGT	1327	Principles of Management	3
CPMT	1404	Microcomputer Systems Software or CPMT 2449	4
ITSC	1315	Project Management Software	3
Elective		Elective	3
		Total Hours	16
		GRAND TOTAL	29

*Equivalent COSC or BCIS course may be substituted

ASSOCIATE OF APPLIED SCIENCE DEGREE
COMPUTER TECHNOLOGY
Entertainment and Business Software Development

FIRST YEAR**First Semester**

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSE	1329	Programming Logic & Design*	3
ITSE	1331	Introduction to Visual BASIC Programming*	3
ITSC	1315	Project Management Software	3
ENGL	1301	Composition I	3
		Total Hours	15-16

Second Semester

ITSE	1407	Introduction to C + + Programming*	4
ITSC	1305	Introduction to PC Operating Systems	3
ITSE	1402	Computer Programming	4
Elective		Social/Behavioral Science	3
ENGL	2311	Technical and Business Writing or ENGL 1302 Composition II**	3
		Total Hours	16

Third Semester

ITSE	2417	JAVA Programming*	4
		Total Hours	4

SECOND YEAR**Fourth Semester**

ITSE	1350	System Analysis and Design*	3
ITSE	2431	Advanced C + + Programming	4
ITSW	1307	Introduction to Database	3
Elective		Technical	3
Elective		Humanities/Fine Arts	3
		Total Hours	17

Fifth Semester

ITSE	2457	Advanced Object-Oriented Programming	3
ITSC	2486	Internship-Computer & Information Sciences, General	4
Elective		MATH (College Level)	3
Elective		Technical	3
		Total Hours	13
		GRAND TOTAL	65-66

*Equivalent COSC or BCIS course may be substituted

**Speech 1311, 1321, 1318, or 1315 must be taken also if the student chooses ENGL 1302

SUGGESTED TECHNICAL ELECTIVES

ARTC	1313	Digital Publishing I
ARTC	1325	Introduction to Computer Graphics
ARTS	2348	Digital Art I
ARTS	2349	Digital Art II
ARTV	1351	Digital Video
IMED	1316	Web Design I
IMED	2311	Portfolio Development
IMED	2315	Web Design II
ITNW	1325	Fundamentals of Networking Technologies
ITSE	1356	Extensible Markup Language (XML)
MUSC	1327	Audio Engineering I

**LEVEL I - CERTIFICATE (TSI WAIVED)
COMPUTER TECHNOLOGY**

Entertainment and Business Software Development

FIRST YEAR**First Semester**

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSE	1329	Programming Logic and Design*	3
ITSE	1331	Introduction to Visual BASIC Programming*	3
ITSC	1305	Introduction to PC Operating Systems	3
ITSE	1402	Computer Programming	4
		Total Hours	16-17

Second Semester

ITSW	1307	Introduction to Database	3
ITSC	1315	Project Management Software	3
ITSE	1407	Introduction to C + + Programming*	4
		Total Hours	10

Third Semester

ITSE	2417	JAVA Programming*	4
		Total Hours	4
		GRAND TOTAL	30-31

*Equivalent COSC or BCIS course may be substituted

ASSOCIATE OF APPLIED SCIENCE DEGREE

COMPUTER TECHNOLOGY

Network Administration Option

FIRST YEAR**First Semester**

ITSC	1301	Introduction to Computers or BCIS 1405	3-4
ITSC	1315	Project Management Software	3
CPMT	1311	Introduction to Computer Maintenance	3
ITSC	1305	Introduction to PC Operating Systems	3
ITSE	1329	Programming Logic and Design	3
ENGL	1301	Composition I	3
		Total Hours	18-19

Second Semester

ITSE	1331	Introduction to Visual BASIC Programming*	3
BMGT	1327	Principles of Management	3
ITNW	1458	Network +	4
ITNW	2413	Networking Hardware	4
ENGL	2311	Technical and Business Writing or ENGL 1302**	3
		Total Hours	17

SECOND YEAR**Third Semester**

CPMT 2449	Advanced Computer Networking Technology	4
ITNW 2415	Wide Area Networks	4
Elective	Security and Networking	3
Elective	MATH (College Level)	3
Elective	Humanities/Fine Arts	3
	Total Hours	17

Fourth Semester

ITSE 1350	System Analysis and Design*	3
ITSC 2486	Internship – Computer & Information Sciences, General	4
Elective	Social/Behavioral Science	3
Elective	Security or Networking.....	3
Elective	Technical***	3
	Total Hours	16
	GRAND TOTAL	65-66

*Equivalent COSC or BCIS course may be substituted.

**Speech 1311, 1321, 1318, or 1315 must be taken also if the student chooses ENGL 1302

***Recommend JAVA as Technical elective

SUGGESTED SECURITY AND NETWORKING ELECTIVES

CPMT 1345	Computer Systems Maintenance
CPMT 1404	Microcomputer System Software
CPMT 2445	Computer System Troubleshooting
CPMT 2449	Advanced Computer Networking Technology
ITNW 1325	Fundamentals of Networking Technologies
ITSY 2301	Firewalls and Network Security
ITSY 2400	Operating System Security
ITSY 2441	Security Management Practices

SUGGESTED TECHNICAL ELECTIVES

ARTC 1313	Digital Publishing I
ARTC 1325	Introduction to Computer Graphics
IMED 1316	Web Design I
IMED 2309	Internet Commerce
IMED 2311	Portfolio Development
IMED 2315	Web Design II
ITSE 1356	Extensible Markup Language (XML)
ITSE 1402	Computer Programming
ITSE 1407	Introduction to C + + Programming
ITSE 2417	JAVA Programming
ITSE 2431	Advanced C + + Programming
ITSE 2457	Advanced Object-Oriented Programming
ITSW 1301	Introduction to Word Processing
ITSW 1307	Introduction to Database
ITSW 1310	Introduction to Presentation Graphics Software
ITSW 2337	Advanced Database

LEVEL I - CERTIFICATE (TSI WAVED)**COMPUTER TECHNOLOGY****Network Administration Option****FIRST YEAR****First Semester**

ITSC 1301	Introduction to Computers**	3
ITSE 1329	Programming Logic and Design*	3
ITSC 1309	Integrated Software Applications I*	3
ITSC 1315	Project Management Software.....	3
	Total Hours	12

Second Semester

ITSE 1331	Introduction to Visual BASIC Programming*	3
ITSC 1305	Introduction to PC Operating Systems	3
CPMT 1311	Introduction to Computer Maintenance.....	3
ITNW 1458	Network +	4
	Total Hours	13

Third Semester

ITSE 1350	System Analysis and Design*	3
ITNW 1454	Implementing and Supporting Servers or ITNW 2405 or CPMT 2449	4
ITNW 2413	Networking Hardware.....	4
ITNW 2415	Wide Area Networks	4
	Total Hours	15
	GRAND TOTAL	40

*Equivalent COSC or BCIS course may be substituted

**BCIS 1405 Business Computer Applications course may be substituted

**ASSOCIATE OF APPLIED SCIENCE DEGREE
COMPUTER TECHNOLOGY
Web Technology**

FIRST YEAR**First Semester**

BCIS 1405	Business Computer Applications.....	4
ITSE 1329	Programming Logic and Design*	3
ENGL 1301	Composition I.....	3
ITSC 1305	Introduction to PC Operating Systems	3
IMED 1316	Web Design I	3
	Total Hours	16

Second Semester

ITSC 1315	Project Management Software.....	3
ITSE 1331	Introduction to Visual BASIC Programming*	3
ITSW 1310	Introduction to Presentation Graphics Software	3
ITSW 1307	Introduction to Database	3
ENGL 2311	Technical and Business Writing or ENGL 1302**	3
Elective	Technical Elective	3
	Total Hours	18

Third Semester

ITSE 2417	JAVA Programming*	4
	Total Hours	4

SECOND YEAR**Fourth Semester**

ITSE 1350	System Analysis and Design*	3
IMED 2315	Web Design II.....	3
ARTS 2348	Digital Art I or ARTS 2313 or ARTS 2314	3
CPMT 2449	Advanced computer Networking Technology	4
Elective	Social/Behavioral Science	3
	Total Hours	16

Fifth Semester

IMED 2309	Internet Commerce	3
ITSC 2486	Internship – Computer & Information Sciences, General	4
ARTC 1313	Digital Publishing I	3
Elective	MATH (College Level)	3
Elective	Humanities/Fine Arts.....	3
	Total Hours	16
	GRAND TOTAL	70

LEVEL II - CERTIFICATE (TSI REQUIRED)
COMPUTER TECHNOLOGY
Web Technology

FIRST YEAR**First Semester**

BCIS	1405	Business Computer Applications.....	4
ITSE	1329	Programming Logic and Design*	3
ITSC	1305	Introduction to PC Operating Systems	3
ITSW	1310	Introduction to Presentation Graphics Software	3
IMED	1316	Web Design I	3
		Total Hours	16

Second Semester

ARTS	2348	Digital Art I or ARTS 2313 or ARTS 2314	3
IMED	2315	Web Design II.....	3
ITSE	1331	Introduction to Visual BASIC Programming*	3
CPMT	2449	Advanced Computer Networking Technology	4
		Total Hours	13

Third Semester

ITSE	2417	JAVA Programming*	4
		Total Hours	4

SECOND YEAR**Fourth Semester**

ITSE	1350	System Analysis and Design	3
IMED	2309	Internet Commerce	3
ARTC	1313	Digital Publishing I	3
ITSW	1307	Introduction to Database	3
		Total Hours	12
		GRAND TOTAL	45

*Equivalent COSC or BCIS course may be substituted

*Equivalent COSC or BCIS course may be substituted.

**Speech 1311, 1321, 1318, or 1315 must be taken also if the student chooses ENGL 1302

SUGGESTED TECHNICAL ELECTIVES

ARTC	1325	Introduction to Computer Graphics
ARTS	2356	Photography I
ARTV	1351	Digital Video
CPMT	1303	Introduction to Computer Technology
GISC	1311	Introduction to GIS & GPS
IMED	2311	Portfolio Development
IMED	2359	Interactive Web Elements
ITNW	1325	Fundamentals of Networking Technologies
ITSC	1315	Project Management Software
ITSE	1311	Beginning Web Programming
ITSE	1356	Extensible Markup Language (XML)
MUSC	1327	Audio Engineering I

CRIMINAL JUSTICE
ASSOCIATE OF APPLIED SCIENCE DEGREE
 Criminal Justice

FIRST YEAR**First Semester**

ENGL 1301	Composition I.....	3
MATH 1332	Contemporary Mathematics I	3
SOCI 2336	Criminology	3
CJSA 1322	Introduction to Criminal Justice*	3
CJSA 1327	Fundamentals of Criminal Law*	3
	Total	15

Second Semester

ENGL 2311	Technical and Business Writing	3
Elective	Humanities/Fine Arts	3
CJLE 2247	Tactical Skills for Police	2
CJSA 1359	Police Systems and Practices*	3
CJSA 2300	Legal Aspects of Law Enforcement*	3
Elective	Criminal Justice.....	3
	Total	17

SECOND YEAR**Third Semester**

CJSA 1312	Crime in America*	3
CJSA 1313	Court Systems and Practices*	3
Elective	Criminal Justice.....	3
Elective	Criminal Justice.....	3
Elective	Criminal Justice.....	3
Elective	Criminal Justice.....	3
	Total	18

Fourth Semester

CJSA 1342	Criminal Investigation*	3
CJSA 1382	Cooperative Education – Criminal Justice Studies or .. SLPS 2388	3
Elective	Criminal Justice.....	3
Elective	Criminal Justice.....	3
Elective	Criminal Justice.....	3
	Total	15
	GRAND TOTAL	65

*Equivalent CRIJ course may be substituted.

Students that have successfully completed the Texas Commission on Law Enforcement Officers and Education 560 hour Basic Peace Officer course may be awarded: CJLE 2522, CJLE 2521, and CJLE 2520. Transcript Equivalence Fee: \$100. Credit will not be transcribed until after the student has completed 16 semester hours at Temple College.

Suggested Criminal Justice Electives

CJSA 1308	Criminalistics I
CJCR 1307	Correctional Systems and Practices*
CJCR 2324	Community Resources in Corrections*
CJSA 1317	Juvenile Justice Systems*
HMSY 1337	Introduction to Homeland Security
SLPS 2333	Private Investigation
SPAN 1411	Beginning Spanish
SPCH 1311	Introduction to Speech Communications
GOVT 2301	American Government I
GOVT 2302	American Government II
HIST 2301	Texas History

**LEVEL-1 CERTIFICATE (TSI WAIVED)
CRIMINAL JUSTICE CERTIFICATE**

First Semester

CJSA 1313	Court System and Practices*	3
CJSA 1322	Introduction to Criminal Justice*	3
CJSA 1327	Fundamentals of Criminal Justice*	3
HMSY 1337	Introduction to Homeland Security.....	3
	Total	12

Second Semester

CJSA 1342	Criminal Investigation*	3
CJSA 1359	Police System and Practices*	3
Elective	Criminal Justice.....	3
Elective Criminal Justice	3
	Total	12

Third Semester

CJSA 1312	Crime in America*	3
CJSA 2300	Legal Aspects of Law Enforcement*	3
Elective	Criminal Justice.....	3
	Total	9
	GRAND TOTAL	33

*Equivalent CRIJ course may be substituted.

Students that have successfully completed the Texas Commission on Law Enforcement Officers and Education 560 hour Basic Peace Officer course and have an active TCLEOSE license may be awarded: CJLE 2522, CJLE 2521, and CJLE 2520. Transcript Equivalence Fee: \$100. Credit will not be transcribed until after the student has completed 16 semester hours at Temple College.

Suggested Criminal Justice Electives

CJCR 1307	Correctional Systems and Practices*
CJCR 2324	Community Resources in Corrections*
CJLE 2247	Tactical Skills for Police
CJSA 1308	Criminalistics I
CJSA 1317	Juvenile Justice System*
CJSA 1325	Criminology*
CJSA 1382	Cooperative Education-Criminal Justice Studies
SLPS 2333	Private Investigation
SLPS 2388	Internship – Security and Loss Prevention Services

EDUCATIONAL PERSONNEL

ASSOCIATE OF APPLIED SCIENCE DEGREE

Educational Personnel*

FIRST YEAR

First Semester

EDTC 1301	Educational Systems	3
EDTC 1307	Introduction to Teaching Reading	3
ITSC 1301	Introduction to Computers	3
ENGL 1301	Composition I.....	3
Elective	Program Related Elective	3
	Total Hours	15

Second Semester

CDEC 2315	Diverse Cultural/Multilingual Education	3
Elective	Program Related Elective	3
EDTC 1311	Instructional Practices and Effective Learning Environments	3
EDTC 1313	Educational Software and Technology.....	3
ENGL 2311	Technical and Business Writing	3
Elective	Math or Science	3
	Total Hours	18

SECOND YEAR

Third Semester

Elective	Social Science/Behavioral Science.....	3
EDTC 2317	Guiding Student Behavior	3
CDEC 1359	Children with Special Needs.....	3
Elective	Program Related Elective	3
Elective	Humanities or Fine Arts.....	3
	Total Hours	15

Fourth Semester

EDTC 2305	Reading Problems	3
CDEC 1419	Child Guidance.....	3
EDTC 2364	Practicum	3
SOCI 1306	Current Social Problems	3
Elective	Program Related Elective	3
	Total Hours	15
	GRAND TOTAL	63

*Also Teacher Assistant Bilingual/ESL: substitute a foreign language for the program related electives and add a lab science.

SUGGESTED ELECTIVES

BMGT 1301	Supervision
CDEC 1354	Child Growth and Development
CDEC 1357	Math and Science for Early Childhood
CDEC 1358	Creative Arts for Early Childhood
CDEC 2441	The School Age Child
TECA 1303	Families, School and Community
TECA 1318	Wellness of the Young Child

LEVEL 1 CERTIFICATE (TSI WAIVED)

Teacher Assistant Certificate

ONE YEAR

First Semester

EDTC 1301	Educational Systems	3
EDTC 1307	Introduction to Teaching Reading	3
ITSC 1301	Introduction to Computers	3
CDEC 2315	Diverse Cultural/Multilingual Education	3
EDTC 2317	Guiding Student Behavior	3
	Total Hours	15

Second Semester

CDEC 1419	Child Guidance.....	3
EDTC 1311	Instructional Practices and Effective Learning Environments	3
EDTC 1313	Educational Software and Technology.....	3
CDEC 1359	Children with Special Needs.....	3
	Total Hours	12
	GRAND TOTAL	27

GEOGRAPHIC INFORMATION SYSTEMS

The Geographic Information System (GIS) program is designed to give students entry-level proficiency. The GIS program enables the student to develop the fundamental skills, knowledge, and experience which prepares the student for positions in the field of GIS. The program combines classroom lecture along with the hands-on experience to give the students practical knowledge of GIS. Students may pursue a Certificate of Completion or the Associate Degree.

Application software used in this program includes ArcGIS® (ESRI), ERDAS Imagine®, AutoCAD®, and Microsoft Office.

ASSOCIATE OF APPLIED SCIENCE

Geographic Information Systems

FIRST YEAR

First Semester

GISC	1301	Cartography / Geography in GIS/GPS	3
GISC	1311	Introduction to GIS	3
ENGL	1301	Composition I.....	3
GEOG	1301	Physical Geography.....	3
ITSC	1309	Integrated Software Applications I or Technical Elective	3
		Total Hours	15

Second Semester

GISC	2301	Data Acquisition and Analysis in GIS.....	3
GISC	2311	Geographic Information Systems (GIS) Applications	3
GEOG	1302	Cultural Geography	3
ITSE	1329	Programming Logic and Design.....	3
ITSW	1307	Introduction to Database	3
Elective		MATH	3
		Total Hours	18

SECOND YEAR

Third Semester

GISC	1391	Special Topics in Cartography.....	3
GISC	2320	Intermediate Geographic Information Systems.....	3
DFTG	1309	Basic Computer-Aided Drafting.....	3
ENGL	2311	Technical and Business Writing.....	3
Elective		Humanities/Fine Arts.....	3
Elective		Program Related	3
		Total Hours	18

Fourth Semester

GISC	1321	Introduction to Raster-Based GIS	3
GISC	2380	Cooperative Education or Related Elective.....	3
DFTG	2330	Civil Drafting.....	3
ITSE	1331	Introduction to Visual BASIC Programming or IMED 1316	3
Elective		Program Related	3
		Total Hours	15
		GRAND TOTAL	66

SUGGESTED PROGRAM RELATED ELECTIVES

ANTH	2346	Introduction to Anthropology
DFTG	2319	Intermediate Computer-Aided Drafting
ENVR	1101	Environmental Science Lab
ENVR	1301	Environmental Science
GEOG	2312	Economic Geography
GEOL	1103	Physical Geology Laboratory
GEOL	1303	Physical Geology
GISC	1391	Special Topics in Cartography
HUMA	1302	Introduction to Humanities II
IMED	1316	Web Design I
IMED	2315	Web Design II
ITSC	1315	Project Management Software
ITSE	1311	Beginning Web Programming
ITSE	2449	Advanced Visual BASIC Programming
ITSW	1310	Introduction to Presentation Graphics Software
SRVY	1301	Introduction to Surveying
SRVY	1319	Introduction to Geographic Information Systems (GIS)
SRVY	2305	Geographic Information Systems Application
SRVY	2309	Computer Aided Mapping

LEVEL I – CERTIFICATE (TSI WAIVED)

Geographic Information Systems

First Semester

GISC	1301	Cartography and Geography in GIS/GPS	3
GISC	1311	Introduction to GIS	3
GEOG	1301	Physical Geography.....	3
ITSC	1309	Integrated Software Applications I or Technical Elective	3
Elective		Program Related	3
		Total Hours	15

Second Semester

GISC	2301	Data Acquisition and Analysis in GIS.....	3
GISC	2311	Geographic Information Systems (GIS) Applications	3
GEOG	1302	Cultural Geography	3
ITSW	1307	Introduction to Database	3
Elective		Program Related	3
		Total Hours	15
		Grand Total	30

Program Related Electives

GISC	1321	Introduction to Raster-Based GIS
GISC	1391	Special Topics in Cartography
GISC	2320	Intermediate Geographic Information Systems
DFTG	1309	Basic Computer-Aided Design
DFTG	2330	Civil Drafting
IMED	1316	Web Design I
IMED	2315	Web Design II
ITSC	1315	Project Management Software
ITSE	1311	Beginning Web Page Programming
ITSE	1329	Programming Logic and Design
ITSE	1331	Introduction to Visual BASIC Programming
ITSW	1310	Introduction to Presentation Graphics Software
SRVY	1301	Introduction to Surveying

HEALTH PROFESSIONS

BIOTECHNOLOGY

Biotechnology is the use of living organisms and/or biological processes to discover new information, solve problems or to make useful products such as vaccines and therapeutic drugs. The goal of the Biotechnology degree and certificate programs is to prepare students to work as Biotechnology Technicians in a variety of exciting fields, such as medical research, agriculture, biomanufacturing, the environmental sciences, and forensics. The curriculum provides a strong foundation in biology, chemistry, microbiology, math and statistics. Specialized biotechnology courses emphasize theory and hands-on experience with cutting edge techniques, technologies, laboratory operations, and instrumentation. Students obtain a working knowledge of molecular biology, tissue cultures, protein separation and purification, DNA/RNA methodologies, proteomics and genomics. In addition, students will learn about bioethics, laboratory safety procedures, verbal and scientific communication, professional conduct, laboratory operations, data interpretation, bioinformatics, quality control and manufacturing practices. The degree program culminates with an Internship or Capstone experience in a local biotechnology/medical research laboratory.

In addition to the Associate in Applied Science (AAS) Degree in Biotechnology, an Advanced Technical Certificate (ATC) in Biotechnology is offered for those students who already have a degree in a related biological or chemistry area. An Enhanced Skills Certificate (ESC) in Genomics and Proteomics is offered as well to students who already possess at least an A.A.S. in Biotechnology or related biological science and who wish to advance their education in the areas of Genomics and Proteomics.

The Biotechnology curriculum is designed not only to prepare the graduate for an entry-level position in the rapidly expanding field of biotechnology, but also to provide a foundation for students who wish to continue on to a bachelor's degree and/or graduate degree in the sciences. See Transfer of Credits or contact the Biotechnology Department for more information.

Requirements for the Associate of Applied Science Degree in Biotechnology

In order to graduate from Temple College and receive the Associate of Applied Science (A.A.S.) in Biotechnology, the student must meet the following degree requirements:

1. Six semester hours of English: ENGL 1301 and 2311
2. Six semester hours in social/behavioral sciences and fine arts/humanities: PSYC 2301 or SOCI 1301 and Fine/Arts Humanities Elective
3. Eight semester hours in biology: BIOL 1406 and BIOL 2421
4. Six semester hours in math: MATH 1314 and MATH 2342
5. Eight semester hours in chemistry: CHEM 1311, CHEM 1111, and CHEM 1408
6. Seven to eight hours of biology or chemistry from stated prerequisites.
7. All required BITC program courses (total of 25 semester hours).
8. Successful completion of the full-time 12 week Internship/Capstone experience with all acceptable criteria met (i.e., attendance, objectives, skills, acceptable affective score, etc.)
9. The student must be enrolled at Temple College the semester immediately prior to the Internship/Capstone experience.
10. At least 71 hours of course credit.
11. A grade of "C" (2.0) or better in all courses.
12. Completion of all course work for the degree or certificate within 5 years.
13. The student must be enrolled in Temple College during the semester of his/her graduation.
14. Also see "Graduation Requirements – Requirements for Associate Degrees and Certificates."

General Biotechnology Degree Requirements

Biotechnology major students (degree or certificate) must meet the following requirements:

1. Attend a Biotechnology Information Session (call the Biotechnology Department for dates and times) prior to enrolling the biotechnology program courses, or;
2. Schedule an appointment with the Department Chair or designated biotechnology faculty member to discuss the degree plan, during, or immediately after taking BITC 1311, Introduction to Biotechnology.
3. Pick up a **Biotechnology Program Information/Application Packet** from the department office at the Texas Bioscience Institute (TBI) office and complete all required forms. The program application and all other signed forms are to be turned into the Department as soon as the student has declared Biotechnology as the degree or certificate program they wish to pursue.
4. Satisfactorily complete all biotechnology, BITC, courses and an approved Internship/Capstone experience.
5. Maintain a grade point average of at least 2.0 overall and in the biotechnology major courses.
6. Submit an **Application for Internship** packet at least one semester before anticipated enrollment in the Internship course, BITC 2587 (see Internship Requirements).

Internship Requirements (BITC 2587)

Successful completion of the Internship is a requirement of the A.A.S. degree and Advanced Technical Certificate (ATC) in Biotechnology. Requirements for the Internship are as follows:

1. Students must maintain a 2.0 or better grade point average in all biotechnology and prerequisite course work to enroll in the Internship.
2. A completed Biotechnology Program application form and all other signed forms on file in the Biotechnology Program office.
3. Students must complete all other degree/certificate requirements *before* enrolling in the Internship course.
4. Students must be enrolled at Temple College the semester before they begin their Internship.
5. A completed **Application for Internship** packet must be submitted at least one semester before enrolling in the Internship. The packet is available from the Biotechnology Department office and includes:
 - a. Application for Internship form.
 - b. Proof of an acceptable criminal background check (contact the department for more information). An *unacceptable criminal* background check may prevent a student from completing the Internship and receiving the degree or certificate from Temple College.
 - c. Proof of Liability Insurance form (available through the college for a small fee).
 - d. A Health Form indicating up-to-date immunizations (i.e., tetanus, diphtheria, mumps, measles, rubella, and varicella), including a series of Hepatitis B vaccinations, and a current physical examination report (within the last 6 months) indicating medical clearance to participate in the Internship. Hepatitis B vaccinations should be started and preferably completed before beginning the Internship.
 - e. A drug screen may be requested at any time during the Internship for cause.
6. Attend a mandatory Biotechnology Department Internship Orientation immediately prior to starting the Internship. Contact the department for the scheduled date.
7. Attend/complete an internship site orientation session, if required.

The most up-to-date information regarding the Biotechnology degree and certificate programs may be viewed on the Temple College biotechnology web site at <http://www.templejc.edu/dept/Biotech/Biotech.htm>.

Essential Functions

To be successful in the biotechnology curriculum and a career in any biotechnology field, students should be able to perform the following Essential Functions of the profession:

- maneuver sufficiently to perform work-related laboratory tasks in a timely manner;
- communicate effectively and professionally with peers, staff, and faculty;
- read and comprehend text, numbers and graphs displayed in print, on video and instrument displays and printouts;
- demonstrate written and oral proficiency in the English language without assistance;
- interpret reactions on slides, media plates and in test tubes, etc., by visual characteristics and/or odor;
- exhibit the manual dexterity necessary to process specimens, operate and repair laboratory instruments, equipment and computers; perform delicate procedures and all other aspects of laboratory operations that require eye-hand coordination;
- regularly meet the activity schedule of the didactic and internship instructors and supervisors to satisfy all performance requirements (objectives) of all internship sites and didactic instruction to include transportation to all internship sites;
- carry or lift objects weighing up to 15 pounds;
- work quickly and accurately under stress, possessing the emotional and mental health to make sound judgments and complete all responsibilities;
- work in a thorough, safe, careful, efficient, responsible and organized manner, alone, or as a laboratory/work-group member;
- logically correlate information/data in order to solve problems;
- demonstrate ethical judgment, integrity, honesty, common sense and accountability in the internship/work setting when dealing with peers, faculty, and staff;
- use interpersonal skills such as cooperation, confidentiality and attentiveness in a positive and tactful manner;

- measure, analyze, synthesize, integrate and apply information as it relates to a biotechnology laboratory;
- successfully complete written, oral or computer-based exams and assignments independently;
- follow verbal and written instructions in order to correctly and independently perform biotechnology laboratory procedures, and
- pay close attention to details in the performance of all laboratory tasks.

**ASSOCIATE OF APPLIED SCIENCE DEGREE
Biotechnology**

Recommended Course Sequence

First Year

Fall Semester

BIOL 1406	Biology for Science Majors I.....	4
CHEM 1311	General Chemistry I.....	3
CHEM 1111	General Chemistry Laboratory I.....	1
MATH 1314	College Algebra (or higher).....	3
ENGL 1301	English Composition I.....	3
ELECTIVE	Fine Arts/Humanities.....	3
	Total	17

Spring Semester

BITC 1311	Introduction to Biotechnology.....	3
CHEM 1408	Introduction to Chemistry II (Bio-Organic)	4
ENGL 2311	Technical and Business Writing.....	3
MATH 2342	Elementary Statistical Methods.....	3
BIOL 2421	Microbiology for Science Majors	4
	Total	17

Summer Semester (6 Weeks)

ELECTIVE	Social/Behavioral Science (PSYC 2301 or SOCI 1301 recommended).....	3
	Total	3

Second Year

Biotechnology Courses

Fall Semester

BITC 1402	Biotechnology Laboratory Methods and Techniques	4
BITC 2431	Cell Culture Techniques	4
BITC 2411	Biotechnology Laboratory Instrumentation.....	4
ELECTIVE	BIOL 2316 Genetics, or BIOL 2404 Anatomy & Physiology, or BIOL 2401 Anatomy & Physiology I (must take BIOL 2402 A&P next semester) CHEM 1312/1112 General Chemistry II and Laboratory	3-4
	Total	15-16

Spring Semester

BITC 1250	Special Studies & Bioethical Issues of Biotechnology	2
BITC 2441	Molecular Biology Techniques.....	4
BITC 1445	Medical Biotechnology	4
ELECTIVE	BIOL 2316 Genetics, or BIOL 2402 Anatomy & Physiology II, or CHEM 1312/1112 General Chemistry II and Laboratory	3-4
	Total	13-14

Summer Semester (12 Weeks)

BITC 2587	Internship – Biotechnology Laboratory Technician	5
	Total	5
	Total	71-72

ADVANCED TECHNICAL CERTIFICATE IN BIOTECHNOLOGY

The Advanced Technical Certificate allows students with a previous background in the sciences or a degree in the sciences (i.e., minimum of A.A.S. or A.A. degree or junior level standing with a minimum of 64 semester hours) to obtain the skills necessary for employment in the rapidly expanding and exciting biotechnology related professions, particularly biomedical research.

The curriculum for the ATC consists of the biotechnology program courses of the A.A.S. degree program and an Internship in a biotechnology laboratory. Students should have a strong science/math background. It is recommended that any science related degree or science courses be completed within the last 5 years. A Program Application and approval of the Biotechnology Department Chair is required for enrollment.

Prerequisites:	Science (biology) related degree and	
BITC 1311	Introduction to Biotechnology.....	3
Fall Semester		
BITC 1402	Biotechnology Laboratory Methods and Techniques	4
BITC 2431	Cell Culture Techniques	4
BITC 2411	Biotechnology Laboratory Instrumentation.....	4
ELECTIVE	BIOL 2316 Genetics, or BIOL 2404 Anatomy & Physiology, or BIOL 2401 Anatomy & Physiology I (must take BIOL 2402 A&P next semester)	
	CHEM 1312/1112 General Chemistry II and Laboratory	3-4
	Total	15-16
Spring Semester		
BITC 1250	Special Studies & Bioethical Issues of Biotechnology	2
BITC 2441	Molecular Biology Techniques.....	4
BITC 1445	Medical Biotechnology	4
ELECTIVE	BIOL 2316 Genetics, or BIOL 2402 Anatomy & Physiology II, or CHEM 1312/1112 General Chemistry II and Laboratory	3-4
	Total	13-14
Summer Semester (12 Weeks)		
BITC 2587	Internship – Biotechnology Laboratory Technician	5
	Total	5
	Total	34-35

ENHANCED SKILLS CERTIFICATE IN GENOMICS/PROTEOMICS

The Enhanced Skills Certificate (ESC) in Genomics/Proteomics allows students with an A.A.S. in Biotechnology to pursue an advanced educational experience in genomics and proteomics. A completed Biotechnology Program application and approval of the Biotechnology Department Chair and/or instructor is required for enrollment.

Prerequisite: Approval of the Biotechnology Department Chair/Instructor and BIOL 2316, Genetics.

BIOL 2316	Genetics.....	3
BITC 2459	Human Genomics	4
BITC 2455	Proteomics	4
	Total Hours	11

DENTAL HYGIENE

This program prepares dental hygiene students to be primary oral health-care professionals who play a key role in promoting oral health through educational, preventive and therapeutic services. The curriculum consists of general education, biomedical sciences, dental sciences, and dental hygiene sciences all provided within a framework of academic and clinical experience.

An Associate of Applied Science degree is awarded upon graduation. Dental hygienists have employment opportunities in general and specialty dental practices and clinics, pharmaceutical and dental supply companies, community health agencies, education and research institutions, and management settings. Dental Hygiene program graduates must pass the written National Board Examination, Regional and/or State Examination, and a state jurisprudence examination to be eligible to apply for state licensure.

Students desiring admission to the program must first meet the basic entrance requirements for Temple College and then file for admission to the Dental Hygiene Program. Enrollment is limited and admission is competitive. Special program admission criteria and procedures are necessary to be accepted into the program.

Program Admission Criteria

Applicants must meet the following requirements:

1. It is highly recommended that students attend a pre-application Dental Hygiene Program Information Session.
2. Complete the Temple College admission procedure.
3. Pass all three sections of the Texas Success Initiative.
4. Provide copies of all relevant transcripts: 1) high school or GED; 2) college/university; and 3) other
5. Provide official transcript of course grades. Prerequisite courses required prior to the application deadline are: BIOL 2401, BIOL 2421, and CHEM 1305 and CHEM 1105. Completion of BIOL 2402 is required prior to enrolling in DHYG 1301 and DHYG 1431. Applicants must have a minimum of a "C" or better in each course. A minimum cumulative grade point average (GPA) of 2.5 is required for admission to the Dental Hygiene Program. Biological science courses must have been taken within the past five years.
6. Pass the pre-entrance departmental aptitude test, the HOBET.
7. Complete a Dental Hygiene Program Admissions Application form.
8. Demonstrate competency in fundamental mathematical skills by a placement test score of a minimum performance level in elementary algebra.
9. Completion of the above admission criteria does not guarantee admission to the Dental Hygiene Program. The highest qualified applicants will be ranked according to scores of the program admission criteria. Twelve applicants will be accepted each year.
10. Upon conditional acceptance into the program, the following must be provided:
 - a. Pre-entry physical and visual acuity examinations (prior to beginning the Dental Hygiene Program and annually thereafter), including proof of required immunizations;
 - b. Documentation of current Cardiopulmonary Resuscitation Certification for the Health Care Provider (prior to beginning the Dental Hygiene Program and annually thereafter).
 - c. Documentation of student professional liability insurance, and must remain current thereafter. Deadline for applying to the Dental Hygiene Program is January 20. Letters of notification will be mailed by March 1. Accepted applicants have until March 15 to notify the Program Director in writing of applicants' intentions.

REQUIREMENTS FOR ASSOCIATE OF APPLIED SCIENCE DEGREE IN DENTAL HYGIENE

To graduate with a Temple College Associate of Applied Science degree in Dental Hygiene, the following requirements must be met:

1. Six semester hours of English: ENGL 1301 and 2311. ENGL 1302 may be used instead of ENGL 2311 if the student also takes three hours of speech: SPCH 1311, 1321, 1318, or 1315.
2. Eight semester hours of human anatomy and physiology: BIOL 2401 and 2402; four semester hours of chemistry: CHEM 1305 and CHEM 1105; and four semester hours of microbiology: BIOL 2421.
3. Six semester hours in social and behavioral sciences: PSYC 2301 and SOCI 1301.
4. Three semester hours in fine arts or humanities to be selected from the disciplines of art, history, literature, music, speech (excluding SPCH 1311, 1321, 1318, and 1315), and theater. Students may select one course of three semester hours credit or several courses totaling three semester hours credit.
5. At least 72 semester hours of course credit, exclusive of all 0000-level courses.
6. Included in the 72 semester hours of course work must be all of the required dental hygiene courses for a total of 41 hours credit.
7. The student must be enrolled in Temple College during the semester of his/her graduation.
8. The student must have completed the last 18 semester hours of the work toward graduation at Temple College or have earned a total of 32 semester hours of TC work applicable toward the graduation requirements.

9. For any variation from the above prescribed requirements to be counted toward graduation, a written statement to this effect, signed by the Dental Hygiene Department Chairperson and the Vice President of Educational Services must be on file in the student's record folder.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Dental Hygiene

PREREQUISITES

CHEM 1305	Introductory Chemistry I and CHEM 1105	4
BIOL 2421	Microbiology	4
BIOL 2401	Human Anatomy and Physiology I	4
MATH	Competency Demonstration	
BIOL 2402	Human Anatomy and Physiology II	4
	Total	16

FIRST YEAR

Summer Semester (12 Weeks)

DHYG 1301	Orofacial Anatomy, Histology and Embryology	3
DHYG 1327	Preventive Dental Hygiene Care	3
	Total	6

Fall Semester

DHYG 1431	Preclinical Dental Hygiene	4
DHYG 1304	Dental Radiology	3
DHYG 2201	Contemporary Dental Hygiene Care I	2
ENGL 1301	Composition I	3
	Total	12

Spring Semester

DHYG 1211	Periodontology	2
DHYG 1260	Clinical-Dental Hygienist I	2
DHYG 1207	General and Dental Nutrition	2
DHYG 2231	Contemporary Dental Hygiene Care II	2
DHYG 1235	Pharmacology for the Dental Hygienist	2
PSYC 2301	General Psychology	3
	Total	13

SECOND YEAR

Summer Semester

DHYG 1319	Dental Materials	3
	Total	3

Fall Semester

DHYG 2361	Clinical-Dental Hygienist II	3
DHYG 1315	Community Dentistry	3
DHYG 1239	General and Oral Pathology	2
SOCI 1301	Introduction to Sociology	3
ENGL 2311	Technical/Business Writing	3
	Or	
ENGL 1302	Composition II and Speech SPCH 1311, 1315, 1318, or 1321	3
	Total	14

Spring Semester

DHYG 2262	Clinical-Dental Hygienist III	2
DHYG 1123	Dental Hygiene Practice	1
DHYG 1291	Special Topics in Dental Hygiene	2
Elective	Fine Arts/Humanities	3
	Total	8
	GRAND TOTAL	72

DIAGNOSTIC MEDICAL SONOGRAPHY

(Pending Co-Board Approval)

The Diagnostic Medical Sonography program is designed to prepare the student for an entry level position as a Diagnostic Medical Sonographer. The DMS program consists of experiences, both didactic and practical, that develop the individual's potential to provide diagnostic quality sonograms. The foundation for this is derived from understanding Sonographic physics and application of these principles, and understanding the relationship of anatomical structures to produce diagnostic sonograms. The faculty facilitates learning opportunities that provide the student exposure to knowledge, skills, technology, and belief systems necessary for the practice of Sonography. These learning opportunities draw from and build on each other to provide progression in the development of sonographic skills. Course work specific to Diagnostic Medical Sonography and the general core curriculum, as outlined by the college, comprises the formal education plan for the ATC and AAS degree Sonography student.

It is the goal of the DMS team in conjunction with the support services at Temple College to:

1. Prepare graduates to successfully challenge the ARDMS Boards through didactic education and clinical experience.
2. Prepare students to be successful in meeting the challenges of being a Sonographer.
3. Provide a high quality education experience for all students.
4. Provide tutoring and online tutoring to all students to help ensure their success in the Program.
5. Provide students with an awareness for the significance of continuing education and instill in them the desire to continue their education after graduation.
6. Teach students to practice Sonography within an ethical and legal framework consistent with ARDMS and SDMS standards.
7. Teach students to use critical thinking to analyze clinical data and current literature as a basis for decision making in Sonography.

Admission to the DMS Program

Students desiring admission to the DMS program must:

1. Complete the Temple College admission procedure and achieve admission to Temple College.
2. Attend a DMS information session.
3. Complete the HOBET test with a minimum of 70 in math and reading.
4. Texas Success Initiative scores – All candidates should have passed all three parts of an assessment test by this time in order to be considered for enrollment in the DMS program.
5. Furnish all official transcripts from all schools attended including all prerequisite course grades.
 - a. The prerequisites must be completed prior to the start of the DMS program, with a minimum of a C in each course. Students who apply for admission while completing the prerequisites may furnish transcripts after the application process prior to the start of the DMS program.
 - b. If you are eligible to sit for an allied health care board exam (Radiographer, RN, LVN, RRT, etc) you must successfully pass your boards prior to being admitted into the DMS program.
6. Admission into the DMS program is competitive. Competitive selection of students may become necessary if the number of applicants exceeds the number of seats available. Prospective students are provided with a worksheet to review and calculate their point awards for admission into the DMS Program.
 - a. Provided there is a tie in the total point score the selection of students for a seat in the DMS program is at the discretion of the DMS Program Chair.
7. Two letters of reference.
8. Document verification of the completion of a series of mandated immunization. Documentation should be submitted at the time of application.
 - a. Tetanus, diphtheria, mumps, measles, rubella, varicella, and Hepatitis B.
 - i. The first two inoculations in the Hepatitis B series must be completed by the end of August.
 - ii. Students shall receive a complete series of Hepatitis B vaccine prior to the start of direct patient care.
 - b. Document a negative TB skin test or X ray within the previous 3 months.
9. Written documentation of a complete physical exam within six months prior to beginning the DMS program, verifying good physical and mental health with required immunizations and receive medical clearance to participate in the program.
10. Interview with the DMS selection panel. Interviews are requested by the DMS selection committee. Those applicants selected for the interview process will be provided with a date and time for the interview.
11. After satisfactory completion of the above admission process, applicants will be notified by letter if they were accepted into the program.
12. After conditional acceptance to the program, the following must be completed:
 - a. Contact the DMS Director to schedule a shadow session.
 - b. A satisfactory criminal background history check (specific instructions will be given). Any healthcare facility associated with Temple College may also require an additional criminal background check. Permission to perform the criminal background history check must be given by the student.
 - i. Failure to give permission will result in dismissal from the program. It will be necessary to dismiss a student from the DMS program if they are barred from practicing at any healthcare facility.

- ii. Future employment and licensing may be affected by the results of a criminal background history check. The criminal background check must be completed no more than 30 days prior to the beginning of the program.
- 13. Drug screenings can be requested at any time by Temple College or a clinical site during enrollment in the DMS program. Failure to give permission will result in dismissal from the program.
- 14. Provide written documentation of successful completion of a CPR course designed for health care providers (e.g., **Basic Cardiac Life Support for Health Care Providers from the American Heart Association** or **CPR for the Professional Rescuer from the American Red Cross**). No student will be permitted in the clinical setting without current documentation on file (must remain current throughout the DMS program).
- 15. Attend a program orientation meeting.
- 16. All DMS students will be required to purchase professional liability insurance at the time of registration. Additional expenses incurred as part of the program are the responsibility of the student.
 - a. See DMS Program Chair for additional information.
- 17. If you have not completed #12 of the above within a week of the start of the DMS program you risk being dropped from the program.

Uniforms and other supplies

Students enrolled in the DMS Program at Temple College must purchase uniforms. The cost of uniforms is not included in any Temple College fees. Additional expenses incurred as part of the program are the responsibility of the student.

Student Travel Policy

A significant portion of the rotations must take place at clinical sites. These clinical sites may not be all located in Temple. Temple College and the DMS department assume no responsibility for expenses incurred as a result of travel or transportation that must be arranged to satisfy course requirements.

Liability Insurance

All students accepted into the DMS program will be required to purchase professional liability insurance at the time of registration. The cost of professional liability insurance is not included in any Temple College fees. Additional expenses incurred as part of the program are the responsibility of the student.

Requirements for an Associate of Applied Science Degree in DMS (Pending Coordinating Board Approval)

In order to graduate from Temple College and receive the Associate of Applied Science degree in Sonography, the student must meet the following requirements.

1. Completion of all prerequisites and general education course electives with a minimum of a 2.0 in each course.
 - Composition I ENGL 1301
 - College Algebra MATH 1314
 - Will accept Statistics or higher level mathematics course.
 - Elementary Physics PHYS 1405
 - Will accept Radiography Physics
 - Anatomy and Physiology BIOL 2404 or Anatomy and Physiology I BIOL 2401 and Anatomy and Physiology II BIOL 2402
2. Seventy-two semester hours of course credit, exclusive of the developmental courses. Each course must be completed with a C grade or better. Included in the 72 semester hours of course work are the 50 hours of DMS Core courses. Each DMS core course must be completed in the required sequence with a C grade or better.
3. Pass the exit exam with a 2.0 or higher.
4. Completion of the Application for Graduation by deadline date.

ASSOCIATE OF APPLIED SCIENCE
Diagnostic Medical Sonography

Prerequisites			
MATH	1314	College Algebra.....	3
PHYS	1405	Elementary Physics (will accept Radiographic Physics)	4
ENGL	1301	Composition I (will accept speech or communication	3
BIOL	2404	Anatomy and Physiology	4
		Total	14
First Year			
Fall 1			
Session I			
DMSO	1302	Basic Ultrasound Physics.....	3
DMSO	1110	Introduction to Sonography.....	1
DSVT	1103	Introduction to Vascular Technology.....	1
Session II			
DMSO	1342	Intermediate Ultrasound Physics.....	3
DMSO	1441	Abdominopelvic Sonography.....	4
		Total	12
Spring I Semester			
DMSO	2441	Sonography of Abdominopelvic Pathology	4
DMSO	2351	Doppler Physics	3
PSYC	2301	General Psychology	3
DMSO	1361	Clinical I – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	3
		Total	13
Summer Semester (12 weeks)			
DMSO	2405	Sonography of Obstetrics and gynecology	4
DMSO	2363	Clinical II - Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
		Total	7
Second Year			
Fall II Semester			
DMSO	2442	Sonography of High Risk Obstetrics	4
DMSO	2354	Neurosonology.....	3
HUMA	1301	Introduction to Humanities.....	3
DMSO	2366	Practicum I – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
		Total.....	13
Spring II Semester			
DMSO	2245	Advanced Sonography Practices.....	2
DMSO	2230	Advanced Ultrasound and Review	2
DMSO	2353	Sonography of Superficial structures.....	3
DMSO	2367	Practicum II – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
Elective		Either ENGL 2311 Technical and Business Writing	
		or ENGL 1302 Composition II and SPCH 1311	3-6
		Total	13
		Total Hours.....	72-75

Exit Exam: You are required to pass the comprehensive exit exam to be eligible to graduate.

Requirements for an Advanced Technical Certificate in Diagnostic Medical Sonography

(Pending Coordinating Board Approval)

To be eligible for an Advanced Technical Certificate the student must meet the following requirements

1. Have an Associates or Bachelors in Radiologic Technology*
 - a. Have successfully challenged the ARRT boards
 - b. Are in good standing with the ARRT
 - c. Maintained a 2.0 or higher in each course.
2. Have an Associates or Bachelors degree in any discipline other than Radiologic Technology that incorporated the following courses into their curriculum:*
 - a. College Algebra
 - b. General Physics
 - c. Composition I
 - d. Anatomy and Physiology 2404 or Anatomy and Physiology I and Anatomy and Physiology II
3. Completion of all previous courses with a 2.0 or higher in each course.
4. If you are eligible to sit for an allied health care board exam you must have successfully pass your boards and be in good standing with the credentialing body.

*if your degree plan did not include a-d listed in #2 you will be required to complete those courses with a minimum of 2.0 prior to being considered for a seat in the DMS program.

In order to graduate from Temple College and receive the Advanced Technical Certificate in Sonography, the student must meet the following requirements.

1. Completion of 49 hours of course credit in the required sequence with a minimum of a 2.0 in each course.
2. Pass the exit exam with a 2.0 or higher.
3. Completion of the Application for Graduation by deadline date.

Advanced Technical Certificate in Diagnostic Medical Sonography

Fall 1

Session I

DMSO	1302	Basic Ultrasound Physics.....	3
DMSO	1110	Introduction to Sonography.....	1
DSVT	1103	Introduction to Vascular Technology.....	1

Session II

DMSO	1342	Intermediate Ultrasound Physics.....	3
DMSO	1441	Abdominopelvic Sonography.....	4
		Total	12

Spring I Semester

DMSO	2441	Sonography of Abdominopelvic Pathology	4
DMSO	2351	Doppler Physics	3
DMSO	1361	Clinical I – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	3
		Total	10

Summer Semester (12 weeks)

DMSO	2405	Sonography of Obstetrics and gynecology	4
DMSO	2363	Clinical II - Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
		Total	7

Second Year

Fall II Semester

DMSO	2442	Sonography of High Risk Obstetrics	4
DMSO	2354	Neurosonology	3
DMSO	2366	Practicum I – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
		Total	10

Spring II Semester

DMSO	2245	Advanced Sonography Practices.....	2
DMSO	2230	Advanced Ultrasound and Review.....	2
DMSO	2353	Sonography of Superficial structures.....	3
DMSO	2367	Practicum II – Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician.....	3
		Total	11
		Total Hours.....	49

Exit Exam: You are required to pass the comprehensive exit exam to be eligible to graduate.

EMERGENCY MEDICAL SERVICES PROFESSIONS

THE PROFESSION AND THE PROGRAM

The primary role of Emergency Medical Services (EMS) professionals is providing patient care in pre-hospital settings and during transfers of patients between health care facilities. They respond to requests for out-of-hospital health care, assess patients, initiate treatment under written or verbal orders from a physician, and transport patients to appropriate facilities. Care that otherwise would be available only in an emergency department is taken into the community. EMS professionals also care for patients who are being transported between health care facilities, both in ground vehicles and on aircraft.

Employers of EMS professionals include ambulance services, fire departments, law enforcement agencies, and aeromedical transport services. In some areas, EMS professionals work in hospital emergency departments and critical care units. With additional education and experience, they also fill positions in EMS systems administration, industrial health and safety, emergency management, and emergency services education.

The Emergency Medical Services (EMS) Professions Department provides course work necessary to prepare students for practice as competent entry-level: (1) EMT-Basics, (2) EMT-Intermediates, or (3) Paramedics. Graduates are eligible for the certification exams offered by the National Registry of Emergency Medical Technicians (NREMT) and for certification or licensure by the Texas Department of State Health Services (DSHS). The EMS Professions Department also offers course work to prepare students for advanced practice as a Critical Care Paramedic.

A two-year program leads to an Associate of Applied Science degree in Emergency Medical Services. EMT-Intermediate and Paramedic Certificates of Completion are available for students who do not wish to pursue an associate's degree. The Department offers courses at both Temple and Taylor.

ADMISSION TO THE DEPARTMENT

There is no discrimination based on race, color, religion/creed, age, sex, disabling conditions, handicaps, or national origin. To be admitted to the EMS program, students must first meet the basic entrance requirements for admission to Temple College. However, admission to Temple College does not constitute automatic acceptance into the EMS program.

Applicants who believe they have a disability that will require accommodations during the application process or during their enrollment should contact the EMS Professions Department as early as possible. Students must be able to successfully complete all course and program requirements.

Persons enrolling in the EMT-Basic course (EMSP 1501/1160) must:

1. Apply for and achieve admission to Temple College.
2. Hold a high school diploma or a GED. (High school seniors may enroll but they must hold a high school diploma and be 18 years old to become eligible for certification.)
3. Document immunization against tetanus, diphtheria, mumps, measles, rubella, varicella, and hepatitis B (Some immunization series require five months to complete. Students must have all immunization completed prior to beginning the clinical rotations).
4. Document results from a tuberculosis skin test or chest x-ray performed within the previous 12 months.
5. Submit a completed EMT application packet.

A completed EMT application portfolio must be submitted according to deadlines established by the EMSP Department. The portfolio must include:

1. Verification of immunization against tetanus, diphtheria, mumps, measles, rubella, varicella, and hepatitis B.
2. Results from a tuberculosis skin test or chest x-ray performed within the last 12 months.
3. Documentation of high school graduation or a GED.

The number of students in the EMT program is limited by spaces available for clinical experience in affiliated hospitals and EMS provider organizations. Enrollment is available on a first come first serve basis.

Persons enrolling in the Intermediate or Paramedic course must:

1. Apply for and achieve admission to Temple College
2. Document immunization against tetanus, diphtheria, mumps, measles, rubella, varicella, and hepatitis B. (Some immunization series require five month to complete) Students must have all immunization completed prior to beginning the clinical rotations).
3. Document results from a tuberculosis skin test or chest x-ray performed within the previous 12 months.
4. Show proof of EMT-Basic certification (NREMT or Texas DSHS). (Students who have completed an EMT course and are in the process of obtaining EMT certification are eligible to enroll.)
5. Submit a completed advanced application packet. Applicants for the intermediate or paramedic program who have completed an EMT-Basic course but who do not yet hold EMT-Basic certification may be accepted with the provision that they obtain EMT-Basic certification before starting clinical rotations during the first semester of advanced course work. Students are accepted for advanced course work beginning in the Fall semester at Taylor and in the Spring semester at Temple.

A completed advanced application portfolio must be submitted according to deadlines established by the EMSP Department. The portfolio must include:

1. An assessment score or documentation of exemption (ACCUPLACER, THEA, COMPAS, etc.).
2. Results of the Department's comprehensive EMT-Basic examination. Students who successfully complete EMSP 1501 from Temple College are exempt from taking this examination and may substitute their score on the EMSP 1501 final examination.
3. Verification of immunization against tetanus, diphtheria, mumps, measles, rubella, varicella, and hepatitis B.
4. Results from a tuberculosis skin test or chest x-ray performed within the last 12 months.
5. Documentation of high school graduation or a GED.
6. Copies of all relevant academic transcripts: high school, college or university, military service schools, other (proprietary schools).
7. Documentation of EMT-Basic certification. Students who are currently enrolled in an EMT-Basic course or who have completed EMT-Basic course work and are engaged in the credentialing process should provide a statement to this effect.
8. A resume or curriculum vitae showing work history with emphasis on EMS experience.

After a completed application portfolio is on file, an interview with at least one member of the EMSP faculty will be scheduled. Letters regarding admission status will be mailed within two weeks of interviews. If an application is rejected, the applicant may request a hearing before the Department Chairman. Requests must be submitted in writing and must include the reasons why the application should be reconsidered.

The number of students in the program is limited by spaces available for clinical experience in affiliated hospitals and EMS provider organizations. Competitive selection of students may become necessary if the number of applicants exceeds the number of seats available. In this event, a committee consisting of the Medical Director and EMSP faculty will review applicants. Factors that may be considered should competitive selection become necessary include:

1. Previous academic performance.
2. Comprehensive departmental EMT-Basic exam scores (or scores on the EMSP 1501 comprehensive final examination).
3. Interview results.
4. Prior work experience in EMS.
5. Temple College service area residency status.
6. Employment by one of the Department's clinical affiliates

UNIFORMS AND OTHER SUPPLIES

Students enrolled in EMSP clinical courses must purchase uniforms consisting of black "pro-tuff" style pants, black boots, black belt, and a white uniform shirt. Purchase of a stethoscope also is required. The cost of clinical uniforms and equipment is not included in any College fees.

PROFESSIONAL LIABILITY INSURANCE

Students will be assessed a professional liability insurance fee when they enroll in their first EMSP clinical course during an academic year. This fee will cover the cost of malpractice insurance coverage for the remainder of that academic year.

STUDENT EMPLOYMENT

The decision to work while enrolled in the EMS program rests with the individual student. While students may be employed in or volunteer in the clinical setting outside of regular instructional hours, they may count time and patient care procedures toward completion of course requirements only if they are functioning in the capacity of a student on a scheduled clinical rotation.

The EMSP Department cannot guarantee that all required clinical rotations will be available at times outside of the hours of a student's regular employment. If a clinical rotation required for successful completion of the course in which a student is enrolled is allowed only during a period of time when a student is engaged in his/her regular employment, the student will be required to arrange time off from work to complete the rotation.

STUDENT TRAVEL POLICY

A significant portion of the rotations must take place at clinical sites that provide access to larger numbers of patients presenting common problems encountered in the delivery of emergency care. Temple College and the EMSP Department assume no responsibility for expenses incurred as a result of travel or transportation that must be arranged to satisfy course requirements.

BACKGROUND TESTING POLICY

Clinical sites will require a criminal background check and/or drug screen testing prior to beginning clinical rotations. If the student does not meet the standards set by the clinical site, the student will not be allowed to attend or complete the clinical at that site.

PROMOTION

Once the student is accepted into advanced EMSP course work, it is expected that he or she will continue to progress directly to the next semester's courses. To do this, the student must:

1. Have completed all previously required EMSP courses with a grade of "C" or better.
2. Have satisfied the competency requirements for all previously required EMSP courses.
3. Maintain good academic standing according to Temple College's Minimum Academic Standards, Scholastic Probation, and Scholastic Suspension policies.
4. Meet all general Temple College requirements and be approved for registration.

The following grading scale applies to all EMSP courses:

Numerical Value	Letter Grade	Points
89.5-100	A	4.0
80.5-89.4	B	3.0
79.5-80.4	C	2.0
69.5-79.4	D	1.0
below 69.5	F	0.0

Instruction in EMSP course work is competency-based. Although minimum clock hour requirements for didactic instruction, clinical rotations, and field internship have been established, successful completion depends on the student's demonstrating proficiency in the knowledge, skills, and personal behaviors/attitudes required of an entry-level EMS professional. Paramedic students complete a field internship under the supervision of experienced preceptors. They must demonstrate the ability to apply and integrate the knowledge, skills, and personal behaviors/attitudes of an entry-level Paramedic and must receive a final evaluation of entry-level competency from their assigned preceptor(s). EMS Professions students also must successfully complete a comprehensive written exit examination and a clinical simulation/oral examination conducted at the end of the final semester.

CERTIFICATION AND LICENSURE

Students who successfully complete prescribed EMSP course work are eligible to take NREMT examination at the appropriate level and to apply for Texas Department of State Health Service's (DSHS) certification or licensure.

The NREMT administers a separate process from the one used by Temple College for determining whether accommodations for disabilities will be granted during the certification examination process. Eligibility is evaluated on a case-by-case basis. Therefore, a student who receives an accommodation during a course taught at Temple College has no guarantee of receiving an accommodation for the NREMT certification examination.

The nature of EMS duties requires restrictions to be placed on credentialing of persons with criminal histories. Applicants with criminal histories who wish to take the NREMT examination or be certified or licensed by DSHS are reviewed by those agencies on a case-by-case basis. Therefore, the EMSP Department is not able to advise a student with a criminal history if he/she will be eligible for certification and/or licensure upon course completion. Questions regarding certification or licensure of applicants with criminal histories should be directed to the Texas Department of State Health Services or the National Registry of EMTs.

Credentialing requirements, procedures, and fees vary significantly from state to state. It is the responsibility of a student who anticipates practicing in another state to contact the appropriate agency regarding credentialing or reciprocity procedures.

ASSOCIATE OF APPLIED SCIENCE DEGREE**Emergency Medical Services****Fall Semester**

BIOL 2401	Human Anatomy and Physiology I.....	4
EMSP 1501	EMT-Basic.....	5
EMSP 1160	Clinical—EMS	1
	Total	10

Spring Semester

BIOL 2402	Human Anatomy and Physiology II.....	4
EMSP 1438	Introduction to Advanced Practice.....	4
EMSP 2348	Emergency Pharmacology	3
EMSP 1356	Patient Assessment and Airway Management.....	3
EMSP 1162	Clinical—EMS	1
	Total	15

Summer Semester

EMSP 1355	Trauma Management.....	3
EMSP 1263	Clinical—EMS	2
EMSP 2544	Cardiology	5
ITSE 1294	Information Technology in Health Care Occupations2	
PSYC 2301	General Psychology.....	3
	Total	15

Fall Semester

EMSP 2434	Medical Emergencies.....	4
EMSP 2430	Special Populations.....	4
EMSP 2260	Clinical—EMS	2
ENGL 1301	Composition I.....	3
	Humanities Elective.....	3
	Total	16

Spring Semester

EMSP 2143	Assessment Based Management.....	1
EMSP 2338	EMS Operations	3
EMSP 2135	Advanced Cardiac Life Support.....	1
EMSP 1147	Pediatric Advanced Life Support	1
EMSP 1149	PreHospital Trauma Life Support	1
EMSP 2460	Clinical—EMS	4
ENGL 2311	Technical Writing	3
	Total	14
	GRAND TOTAL	70

ENHANCED SKILLS CERTIFICATE**Critical Care Paramedic****Fall Semester**

EMSP 2458	Critical Care Paramedic.....	4
EMSP 2263	Clinical—Emergency Medical EMT Paramedic	2
	Total	6

LEVEL I - CERTIFICATE (TSI WAIVED)**EMT-Intermediate****Fall Semester**

BIOL 2404	Introduction to Human Anatomy and Physiology*	4
EMSP 1501	EMT-Basic.....	5
EMSP 1160	Clinical—EMS	1
	Total	10

Spring Semester

EMSP 1438	Introduction to Advanced Practice.....	4
EMSP 2348	Emergency Pharmacology	3
EMSP 1356	Patient Assessment and Airway Management.....	3
EMSP 1162	Clinical—EMS	1
	Total	11

Summer Semester

EMSP 1355	Trauma Management.....	3
EMSP 1263	Clinical—EMS	2
	Total	5
	GRAND TOTAL	26

* BIOL 2401 may be substituted for BIOL 2404

LEVEL II - CERTIFICATE OF COMPLETION (TSI REQUIRED)**Paramedic****Fall Semester**

BIOL 2404	Introduction to Human Anatomy and Physiology*	4
EMSP 1501	EMT-Basic.....	5
EMSP 1160	Clinical—EMS	1
	Total	10

Spring Semester

EMSP 1438	Introduction to Advanced Practice.....	4
EMSP 2348	Emergency Pharmacology	3
EMSP 1356	Patient Assessment and Airway Management.....	3
EMSP 1162	Clinical—EMS	1
	Total	11

Summer Semester

EMSP 1355	Trauma Management.....	3
EMSP 1263	Clinical—EMS	2
EMSP 2544	Cardiology	5
	Total	10

Fall Semester

EMSP 2434	Medical Emergencies.....	4
EMSP 2430	Special Populations	4
EMSP 2260	Clinical—EMS	2
	Total	10

Spring Semester

EMSP 2143	Assessment Based Management.....	1
EMSP 2338	EMS Operations	3
EMSP 2135	Advanced Cardiac Life Support.....	1
EMSP 1147	Pediatric Advanced Life Support	1
EMSP 1149	Pre-Hospital Trauma Life Support	1
EMSP 2460	Clinical—EMS	4
	Total	11
	GRAND TOTAL	52

* BIOL 2401 may be substituted for BIOL 2404

NURSING

Associate of Applied Science Degree in Nursing

The Associate Degree Nursing (ADN) program leads to an Associate of Applied Science degree and allows the graduate to apply to take the state licensing exam for registered nursing. Completion of the AAS degree in nursing does not guarantee admittance to the registered nurse license examination. Graduates will be required to answer questions about their drug, alcohol, psychiatric, and/or conviction history for determination of eligibility to take the licensing exam for registered nursing. Criminal background checks are now required on all graduates. Further information is available in the office of the ADN Department. The Associate Degree Nursing Program is fully accredited by the National League for Nursing Accreditation Commission, 212-363-5555, 61 Broadway, New York, NY 10006.

PHILOSOPHY

The philosophy of the Temple College Associate Degree Nursing program reflects the beliefs of the faculty and provides the foundation for the nursing program. The philosophy of the program complements the institution's mission statement by providing quality education to prepare ADN graduates who are capable of entry level employment in the diverse community served by Temple College. The purpose of the ADN program is to provide assistance in supplying the Central Texas area with qualified graduate nurses who are prepared to take the National Council Licensure Examination to become registered nurses.

The faculty recognizes the holistic nature of the individual with biological, psychological, and social dimensions. The biological dimension is represented by the physical being. The psychological dimension is represented by the mind. The social dimension is represented by the individual's relationships with others. These dimensions are interrelated to create the whole. Because of the interrelatedness of these dimensions, when one dimension changes, other dimensions may be affected.

The individual is understood to be a dynamic being with varying capacity to meet their needs. A need is that which is necessary, useful, or desirable to maintain life. Each individual has the right to be actively involved in a plan to meet their needs. When active involvement is not possible; the individual is entitled to assistance in a caring manner.

Nursing is a profession in which caring behaviors are provided by interaction with the client in response to actual or potential unmet needs. Caring behaviors are those practices that demonstrate the nurse's altruistic concern for the welfare of the client. Caring behaviors are integrated from both scientific and humanistic experiences. The five steps of the nursing process, assessment, diagnosis, planning, implementation, and evaluation, are used as the method of critical thinking to integrate scientific principles with humanistic concerns. The nurse provides caring behaviors by performing in the roles of provider of care, coordinator of care, and profession member. These roles may be performed in a variety of settings. The nurse is accountable for performance in these roles not only to one's self and the profession, but also to a local, national, and global society.

Nursing education consists of experiences both didactic and practicum, that develop the individual's potential to provide quality care. The foundation for these experiences is derived from scientific and humanistic concepts and principles. The faculty facilitates learning opportunities that provide the student exposure to knowledge, skills, technology, and belief systems necessary for professional nursing practice. These learning opportunities draw from and build on each other to provide progression in the development of nursing roles. Course work specific to nursing and the general core curriculum, as outlined by the College, comprises the formal education plan for the associate degree nursing student.

Learning is viewed as a continuing process involving cognitive, affective, and psychomotor domains. Learning in the nursing program is dependent on faculty-student interaction. The faculty has the responsibility for guiding the learner to experiences that will assist them in meeting the objectives of the nursing program. The student has the responsibility for acquiring the knowledge, values and skills necessary to meet the objectives of the nursing program. Both participants have the responsibility for creating and participating in a learning climate that fosters the maximum development of each individual's potential. This focus recognizes that learning beyond the formal educational setting is essential and learning does not stop when the learner completes the formal learning plan.

Therefore, the nursing curriculum incorporates the following concepts: the individual is a holistic being with varying capacity to meet their needs; nursing interacts with the individual in response to unmet needs by utilizing the nursing process to provide caring behaviors; the nurse performs in the roles of provider of care, coordinator of care, and profession member.

The role of the graduate associate degree nurse in the profession of nursing is to:

1. Display a commitment to the value of caring by delivering client-centered care;
2. Use the nursing process as a basis for critical thinking to integrate scientific and humanistic principles and concepts;
3. Act as a coordinator in organizing and facilitating quality client care;
4. Practice as a coordinator and provider of care in a variety of settings where policies and procedures are specified and guidance is available;
5. Communicate effectively in performance of professional roles;
6. Practice within the ethical and legal framework of nursing and be accountable for ensuring high standards of nursing practice;
7. Be a contributing member within the profession of nursing.

OBJECTIVES

On the basis of this philosophy, the faculty believe that the Temple College Associate of Applied Science nursing program graduate will:

1. Integrate scientific and humanistic concerns to provide caring behaviors through a variety of practices.
2. Determine the health status of clients from a holistic perspective.
3. Participate with clients to formulate client-centered nursing diagnoses, goals, and a plan of care to meet their holistic health needs, incorporating promotion, prevention, maintenance, and restoration.
4. Implement the nursing plan of care according to standards of practice.
5. Provide for the safety of self and others.
6. Incorporate culturally sensitive nursing care for a diverse population.
7. Participate with clients to evaluate their progress toward established goals.
8. Develop, implement, and evaluate individualized teaching-learning plans concerning promotion, prevention, maintenance, and restoration of health.
9. Establish and maintain effective communication with clients, nurses, and other health care team members.
10. Establish priorities, organize and provide care for multiple clients.
11. Delegate aspects of care to appropriate health care providers commensurate with their educational preparation and experience.
12. Coordinate human and material resources to provide cost effective and quality care to meet health needs.
13. Collaborate with the client and other health care team members to meet the health needs of clients.
14. Refer clients to resources that facilitate continuity of care.
15. Assume professional responsibility and accountability.
16. Practice nursing within an ethical and legal framework, consistent with nursing practice standards as defined by professional and regulating organizations.
17. Act as an advocate to promote the provision of quality health care for clients.
18. Participate in activities that promote the development of self and nursing.
19. Use a critical thinking approach to analyze clinical data and current literature as a basis for decision making in nursing practice.

ADMISSION TO THE ADN PROGRAM

Students desiring admission to the ADN program must:

1. Complete the Temple College admission procedure.
2. Complete the admission procedure for the ADN Department:
 - Schedule to take the nursing pretest. The Nursing Entrance Test (NET-RN) is the pre-entrance departmental aptitude test used by the ADN program. The pre-entrance examination will be given in February and March for the fall class. Check with the Associate Degree Nursing Office for specific testing dates. All **prerequisite** courses must be in progress or completed by the time of pre-test. Study guides for the NET-RN are available at the Temple College bookstore.
 - The **prerequisite** courses are: BIOL 2401, ITSE 1294, and PSYC 2301.
 - Complete an application from the ADN Department after taking the pre-entrance test.
 - Furnish official transcripts of **prerequisite** course grades and any courses that may apply to the ADN program. You must have a minimum of a "C" in every course. A minimum overall grade point average (GPA) of 2.5 (in all courses that apply toward the nursing curriculum) is required for admission to the ADN program. Biological science courses must have been taken within the past ten years.
3. After satisfactory completion of the above admission process, applicants will be notified by letter of whether or not they were conditionally accepted into the program.
4. After conditional acceptance to the program, the following must be completed:
 - A satisfactory criminal background history check (specific instructions will be given). Any healthcare facility associated with Temple College may also require criminal background history checks. Permission to perform the criminal background history check must be given by the student. Failure to give permission could result in dismissal from the program. It may be necessary to dismiss students from a program if they are barred from practicing at any healthcare facility. Future employment and licensing may be affected by the results of a criminal background history check. The Texas Board of Nursing will also conduct a criminal background history check at the completion of the program. The background history check you will do for us will NOT guarantee you will meet the BON requirements.
 - A current physical examination (within six months prior to beginning the nursing program) verifying good physical and mental health with required immunizations. Note: Students shall receive a complete series of Hepatitis B vaccine prior to the start of direct patient care.
 - Provide written documentation of successful completion of a CPR course designed for health care providers (e.g., **Basic Cardiac Life Support for Health Care Providers** from the American Heart Association or **CPR for the Professional Rescuer** from the American Red Cross). No student will be permitted in the clinical setting without current documentation on file (must remain current throughout the ADN program).

5. In the event the application is rejected, the applicant may request a hearing with the ADN Department Chair. Such request is to be submitted in writing and include the reasons why the application should be reviewed.
6. All nursing students will be required to purchase professional liability insurance at the time of registration. Additional expenses incurred as part of the program are the responsibility of the student.

Note: Admission to Temple College does not constitute automatic acceptance into the nursing program. Admission to the nursing program is determined during the late spring for the fall semester. In the case of competitive admissions, requirements over and above the minimum may be necessary.

Applications will not be processed if any of the stated admission requirements are missing or incomplete.

Students seeking admission to the ADN program are admitted to the program on the basis of the following criteria with maximum point totals awarded as indicated:

- * GPA (only general education courses that apply to the ADN curriculum) (5 points)
- * Number of general education credits that apply toward the ADN curriculum (3 points)
- * Temple College service area residency status (1 point)
- * Pre-Test Score (4 pts)

Point totals are then used to rank candidates .

One point will be deducted from an applicant's point total if the applicant has failed any nursing course in another nursing program.

PROMOTION

Once a student is accepted into and begins the ADN program curriculum, it is expected that the student will continue to progress directly to the next semester's courses. In order to do this, the student must:

1. Have completed all previously required courses with a "C" grade (2.0 based on a 4.0 scale) or better;
2. Be concurrently enrolled in required non-nursing courses scheduled for that semester, or have previously passed these courses with a minimum grade of "C" (2.0);
3. Maintain good academic standing (See the College catalog, Minimum Academic Standards, Scholastic Probation, & Scholastic Suspension policies).
4. Meet all general Temple College requirements (be approved for registration).

Failure in any required nursing course indicates possibility of failure on the board exam. Therefore, no more than one course may be repeated during the program, due to failure, and that course may be repeated only once.

In all nursing courses, the following grading scale will be used.

Numerical Value	Letter Grade	Points
93-100	A	4.0
85-92	B	3.0
75-84	C	2.0
Below 75	F	0

In all courses, both nursing and non-nursing, that count toward graduation, the minimum passing grade is a "C" or 2.0 on the 4.0 scale. Further grading criteria can be found in each course outline.

READMISSION TO THE ADN PROGRAM

Students may apply for readmission to the ADN program following their withdrawal or dismissal by submitting a new application to the ADN Department office. Students seeking readmission who have successfully completed any nursing courses more than three years prior to readmission will be required to re-enroll in the nursing courses. All policies specified by Temple College for readmitting students will apply (See the College catalog section on readmission under the Application for Admission policy.) Applicants being readmitted to the first semester of nursing courses will be considered using the same criteria as are used for new applicants. Applicants being considered for readmission to other semesters in the nursing curriculum will be considered on a space available basis.

A student who was dismissed for an unsatisfactory grade in a nursing course (class and/or clinical) will be asked to discuss the problems that led to dismissal and actions that have been taken that would enable him/her to reasonably expect success in completing the program, passing the licensing exam, and contributing to the profession of nursing. After a second nursing program failure or withdrawal, a student is not eligible for readmission.

TRANSFER TO THE TC ADN PROGRAM FROM ANOTHER NURSING PROGRAM

Transfer students who have been enrolled in an approved RN level nursing school will be considered for admission on a space available basis. Also, all policies specified by Temple College for accepting transfer students will apply (see the College catalog section on transfer students under Application for Admission.)

Required non-nursing courses will be evaluated for transferability by the Division Director of Enrollment Management and the ADN Program Director. The student must arrange for all official transcripts to be sent directly to the Admissions and Records office for any non-nursing course they wish to have considered for transfer. In addition, if a course description is not readily available in the Admissions and Records office, the student will be responsible for providing a copy of the appropriate course description prior to the final determination. An official copy of the transcript and course description should also be sent to the ADN Department office.

Required nursing courses will be evaluated for transferability by the ADN Program Director, in association with the Division Director of Enrollment Management. The student must arrange for an official transcript to be sent directly to the Admissions and Records office. In addition, the student will be responsible for providing a copy of the course description, syllabus, objectives, and an official transcript to the ADN Program Director. Prior to the final determination, the ADN Program Director may request the student to provide further information and may consult with specific faculty regarding the acceptability of potential nursing transfer courses into the Temple College curriculum.

Upon final determination of the transferability of any courses, the ADN Program Director will approve the curriculum plan to be followed by the transfer student. Any student transferring into the nursing program from another nursing program will enter Temple College ADN program with only one attempt to complete the program.

PRIORITIZATION LISTING FOR READMISSION AND TRANSFERS

Request for readmission or transfer students will be prioritized as follows:

1. First priority: Former Temple College students with a passing grade in previous nursing courses.
2. Second priority: Transfer students with passing grades in previous nursing courses.
3. Third priority: Former Temple College students with a previous nursing course failure.
4. Fourth priority: Transfer students with a previous nursing course failure.

Within each priority group, preference is given based on nursing GPA.

REQUIREMENTS FOR ASSOCIATE OF APPLIED SCIENCE DEGREE IN NURSING

In order to graduate from Temple College and receive the Associate of Applied Science degree in Nursing, the student must meet the following requirements:

1. Six semester hours of English: ENGL 1301 and 2311. ENGL 1302 may be used instead of ENGL 2311 if the student also takes three hours of Speech: SPCH 1311, 1315, 1318, or 1321.
2. Six semester hours in behavioral sciences: PSYC 2301 and PSYC 2314.
3. Three semester hours in fine arts or humanities to be selected from the disciplines of art, history, literature, music, philosophy (excluding logic), drama/theater and humanities.
4. Eight semester hours of anatomy and physiology: BIOL 2401 and BIOL 2402. Two semester hours of computer information technology: ITSE 1294. Four semester hours of microbiology: BIOL 2421. For any variation from these prescribed requirements to be counted toward graduation, a written statement to this effect, signed by the ADN Program Director and the Vice President of Educational Services must be on file in the student's record folder.
5. Seventy-two semester hours of course credit, exclusive of developmental courses. All prescribed courses must be completed with a "C" grade or better. Included in the 72 semester hours of course work must be all of the required nursing courses, or their equivalent, for a total of 43 hours of credit. For any variation from these prescribed requirements to be counted toward graduation, approval must be given by the ADN Program Director.
6. The student must have completed the last 18 semester hours of the work toward graduation at Temple College or have earned a total of 32 semester hours of TC work applicable toward the degree requirements.
7. All candidates will be required to pass an exit level exam before graduating from the Associate Degree Nursing program.
8. Completion of the Application for Graduation by deadline date.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Nursing (ADN Program)

NOTE: The student must earn a "C" or higher grade in each course.

Prerequisites

BIOL	2401	Human Anatomy and Physiology I.....	4
ITSE	1294	Special Topics in Computer Science	2
PSYC	2301	General Psychology.....	3
		Total	9

FIRST YEAR**Fall Semester**

BIOL	2402	Human Anatomy and Physiology II.....	4
RNSG	1201	Pharmacology	2
RNSG	1360	Clinical-Nursing I –Registered Nurse Training	3
RNSG	1205	Nursing Skills I.....	2
RNSG	1309	Introduction to Nursing.....	3
		Total	14

Spring Semester

PSYC	2314	Lifespan Growth and Development.....	3
RNSG	1431	Principles of Clinical Decision-Making.....	4
RNSG	1146	Legal & Ethical Issues for Nurses	1
RNSG	1110	Introduction to Community-based Nursing.....	1
RNSG	1361	Clinical-Nursing II-Registered Nurse Training	3
		Total	12

Summer Semester I

BIOL	2421	Microbiology.....	4
		Total	4

Summer Semester II

RNSG	2213	Mental Health Nursing.....	2
RNSG	1262	Clinical-Nursing III-Registered Nurse Training.....	2
		Total	4

SECOND YEAR**Fall Semester**

ENGL	1301	Composition I.....	3
		Elective	3
RNSG	1447	Fine Arts/Humanities.....	3
RNSG	2201	Concepts of Clinical Decision-Making	4
RNSG	2360	Care of Children & Families	2
		Clinical-Nursing IV-Registered Nurse Training	3
		Total	15

Spring Semester

ENGL	2311	Technical & Business Writing** or ENGL 1302 CompositionII and 3 credits Speech (1311,1315,1318,1321)	3-6
RNSG	1251	Care of the Childbearing Family	2
RNSG	2441	Advanced Concepts of Clinical Decision-Making +	4
RNSG	2221	Management of Client Care.....	2
RNSG	2361	Clinical-Nursing V-Registered Nurse Training	3
		Total	14-17
		Total Hours	72-75

** Course includes speech component.

*Exit Exam – All candidates will be required to pass an exit exam before graduating from the Associate Degree Nursing Program.

BRIDGING PROGRAM (LVN TO ADN)

This program prepares the Licensed Vocational Nurse to make the transition into the professional nursing role. Upon completion of this program graduates receive an Associate of Applied Science degree which qualifies them to apply for the state licensing examination for registered nursing. Graduates will be required to answer questions about their drug, alcohol, psychiatric, and/or conviction history for determination of eligibility to take the licensing exam for registered nursing. Criminal background checks are now required on all graduates. Further information is available in the office of the ADN department. NLNAC is an additional resource for program information, (212) 363-5555, 61 Broadway, New York, NY 10006.

ADMISSION TO THE LVN BRIDGING PROGRAM

Students desiring admission to the LVN Bridging program must:

1. Complete the Temple College admission procedure.*
2. Complete the following prerequisite courses: BIOL 2401, BIOL 2402, BIOL 2421, ITSE 1294, PSYC 2301, PSYC 2314, and VNSG 1323.
3. Complete the admission requirements and procedure for the ADN Department.
 - Be a graduate of a Texas VN program or out-of-state NLN accredited program (applicant is responsible for providing documentation); and hold a valid Texas VN license in good standing.
 - Have a grade of "C" or better in all VN courses and any course which applies toward the ADN curriculum.
 - If the applicant graduated more than two years before admission, the applicant must have had nursing practice experience of six months full time or one year part time within the last two years. Part time is defined as a minimum of 800 hours per year. A letter from the employer(s) will be required to verify work experience.
 - Complete an application from the ADN Department.
 - Furnish official transcripts of prerequisite course grades and any courses that may apply to the ADN program. Must have a minimum of a "C" in every course. A minimum overall grade point average (GPA) of 2.5 (in all courses that apply toward the nursing curriculum) is required for admission to the ADN program. Biological science courses must have been taken within the past 10 years.
4. After satisfactory completion of the above admission process, applicants will be notified by letter of whether or not they were conditionally accepted into the program.
5. After conditional acceptance to the program, the following must be completed:
 - A satisfactory criminal background history check (specific instructions will be given). Any healthcare facility associated with Temple College may also require criminal background history checks. Permission to perform the criminal background history check must be given by the student. Failure to give permission could result in dismissal from the program. It may be necessary to dismiss students from a program if they are barred from practicing at any healthcare facility. Future employment and licensing may be affected by the results of a criminal background history check. Texas Board of Nursing will also conduct a criminal background history check at the completion of the program. The background history check you will do for us will NOT guarantee you will meet the BON requirements.
 - A current physical examination (within six months prior to beginning the nursing program) verifying good physical and mental health and required immunizations. Note: Students shall receive a complete series of Hepatitis B vaccine prior to the start of direct patient care.
 - Written documentation of successful completion of a CPR course designed for health care providers (e.g., **Basic Cardiac Life Support for Health Care Providers** from the American Heart Association or **CPR for the Professional Rescuer** from the American Red Cross). No student will be permitted in the clinical setting without current documentation on file (must remain current throughout the ADN program).
6. In the event the application is rejected, the applicant may request a hearing before the ADN Department Chair. Such request is to be submitted in writing to include the reason why the application should be reviewed.
7. All nursing students will be required to purchase professional liability insurance at the time of registration. Additional expenses incurred as part of the program are the responsibility of the student.

***Admission to the LVN Bridging Program is determined in the early spring. In the case of competitive admissions, requirements over and above the minimum may be necessary.**

Policies on promotion, readmission, and transfer apply to both LVN Bridging and ADN students.

Applications will not be processed if any of the stated admission requirements are missing or incomplete.

Students seeking admission to the LVN Bridging program are admitted to the program on the basis of the following criteria, with maximum point totals awarded as indicated:

- **GPA, only general education courses that apply to the ADN curriculum (5 points)**
- **Number of general education credits that apply to the ADN curriculum (3 points)**
- **Graduate of Temple College Vocational Nursing Program (1 point)**
- **Temple College service area residency status (1 point)**

One point will be deducted from an applicant's point total if the applicant has failed any nursing course in another nursing program.

ASSOCIATE OF APPLIED SCIENCE DEGREE**Nursing (LVN Bridging Program)****(Must be a Licensed Vocational Nurse)****Prerequisites**

BIOL	2401	Human Anatomy and Physiology I.....	4
BIOL	2402	Human Anatomy and Physiology II.....	4
BIOL	2421	Microbiology.....	4
ITSE	1294	Special Topics in Computer Science.....	2
PSYC	2301	General Psychology.....	3
PSYC	2314	Lifespan Growth and Development.....	3
VNSG	1323	Basic Nursing Skills(credit from VN Program).....	3
		Total	23

Summer Semester I

RNSG	2307	Transition to Nursing Practice	3
RNSG	1162	Clinical-Nursing-Registered Nurse Training	1
		Total	4

Summer Semester II

RNSG	2213	Mental Health Nursing.....	2
RNSG	1262	Clinical-Nursing III-Registered Nurse Training.....	2
		Total	4

SECOND YEAR**Fall Semester**

ENGL	1301	Composition I.....	3
Elective		Humanities/Fine Arts.....	3
RNSG	1447	Concepts of Clinical Decision-Making	4
RNSG	2201	Care of Children & Families	2
RNSG	2360	Clinical-Nursing IV-Registered Nurse Training	3
		Total	15

Spring Semester

ENGL	2311	Technical & Business Writing** or ENGL 1302 Composition II and 3 credits Speech (1311, 1315, 1318, 1321).....	3-6
RNSG	2441	Advanced Concepts of Clinical Decision-Making +	4
RNSG	1251	Care of the Childbearing Family.....	2
RNSG	2221	Management of Client Care.....	2
RNSG	2361	Clinical-Nursing V-Registered Nurse Training	3
		Total	14-17
		Total Hours	60-63

**Course includes speech component

*Exit Exam – All candidates will be required to pass an exit exam before graduating from the ADN Program.

VOCATIONAL NURSING

This one-year Vocational Nursing (VN) program is designed to prepare students with the experience and education to function in a variety of health care settings under the supervision of a registered nurse. Upon successful completion of the program, a certificate is awarded by Temple College, and allows graduates to apply to take the state licensing examination for vocational nursing. Completion of the VN program does not guarantee admittance to the vocational nursing licensure examination. Graduates will be required to answer questions about their drug, alcohol, psychiatric, and/or conviction history for determination of eligibility to take the licensing examination for vocational nursing. Further information is available in the office of the VN department.

PHILOSOPHY

The philosophy of the Temple College Vocational Nursing program reflects the beliefs of the faculty and provides the foundation for the nursing program. The philosophy of the program complements the institution's mission statement by providing quality education to prepare VN graduates who are capable of entry-level employment in the diverse community served by Temple College. The purpose of the VN program is to provide assistance in supplying the Central Texas area with qualified vocational nurses who are prepared to take the National Council Licensure Examination to become licensed vocational nurses.

The Vocational Nursing Faculty supports the following beliefs:

Individual - Each individual is recognized as a holistic being with physical, psychological, socio-

cultural and spiritual dimensions which are interrelated to create a whole. Individuals continuously adapt to an ever changing environment while experiencing varying degrees of health throughout the lifespan. Therefore, each person has the right to make positive lifestyle choices for his/her health to maintain optimum quality of life. These lifestyle choices must focus on meeting the basic needs that are essential to life and progress toward self-actualization. Each individual has the right and responsibility to be given treatment in a caring manner and to be actively involved in planning this care to meet their individual needs.

Society - A society is formed by the networking of individuals, families, and communities. Each person brings to this group their own perceptions, values, attitudes, skills and knowledge. In a society that is dynamic and culturally diverse, everyone benefits when individuals work together to form common goals that meet the needs of all members.

Nursing - Nursing synthesizes knowledge from both the arts and the sciences to form the theoretical base for the profession. It combines the art of caring and nurturing with scientific principles and skills in providing preventative, therapeutic, and rehabilitative care for individuals and families. The nursing process is used as a basis for providing a systematic decision making approach in providing holistic care to clients in various stages of the life cycle. As nurses increase their levels of expertise, they demonstrate competency in the roles of provider of care, coordinator of care, and member of a profession according to their levels of responsibility.

Vocational nursing - The vocational nurse is an integral component of the health care team. Each nurse provides direct basic care for multiple clients in structured settings and assists in the coordination of care in collaboration with other health care professionals. These nurses recognize the role of nursing research in improving client care. Vocational nurses are accountable for their own actions and must provide a standard of practice that is within legal and ethical parameters. Each nurse must seek opportunities that promote personal and professional growth.

The teaching-learning process - Learning is defined as an interactive process demonstrated as a partnership that fosters professional growth. The teaching-learning process must be individualized and collaborative. The faculty must provide a curriculum that is continuously evaluated to meet the ever changing educational and technological needs of society. Faculty members must inspire excellence as they serve as role models and facilitators in providing learning experiences that target the learner's needs. The student must demonstrate responsibility for learning by actively participating in the learning process. Learning experiences proceed on a continuum from simple to complex.

Nursing education - All nursing education consists of nursing theory principles integrated with clinical experiences in varied health care settings. Nursing education empowers students to problem solve and use critical thinking skills to seek solutions to problems. Students from diverse cultural and educational backgrounds must be provided opportunities to develop the knowledge, attitudes, and skills necessary to become competent, caring, and legal-ethical members of the health care team. Quality nursing education must be provided in an environment conducive to helping students achieve their personal and professional goals.

Education as a lifelong process - Education is a process that enhances one's knowledge by building on experiences and skills. Therefore, the basic blocks for learning must be formed into a strong foundation so that learning can continue as a lifelong process. As each person acquires skills, knowledge, and legal-ethical growth, their educational goals may be attained for the present, but new ones should be formed for the future. Each person must learn to evaluate their need for continuing education to maintain a lifelong accountability in their educational journey.

ADMISSION TO THE VN PROGRAM

Students desiring admission to the Vocational Nursing program must meet the following requirements:

1. Complete the Temple College admission procedure.
2. Complete the admission procedure for the VN Department:
 - Schedule to take the nursing pre-test. The Nursing Entrance Test (NET-PN) is the pre-entrance departmental aptitude test used by the VN program. This test score is valid for one year. A passing composite score is required in order to be considered for acceptance by the VN program. This pre-entrance examination is given in November, December and January for the summer class. Check with the Vocational Nursing Office for specific testing dates. Study guides for the NET-PN are available in the Temple College bookstore. The NET-PN is given in the Testing Center, located in the One College Centre.
 - Complete an application from the VN Department after taking the pre-entrance test.
 - Furnish evidence of an official high school transcript showing evidence of graduation or an official

- General Education Development Equivalency certificate.
 - If you have college credits that apply toward the VN curriculum, you must furnish official transcripts of all course work from these colleges or universities. Biological Science courses must have been taken within the past ten years.
3. After satisfactory completion of the above admission process, applicants will be notified by letter of whether or not they were conditionally accepted into the program.
 4. After conditional acceptance to the VN program, the following requirements must be completed:
 - A satisfactory criminal background history check (specific instructions will be given). Any healthcare facility associated with Temple College may also require criminal background history checks. Permission to perform the criminal background history check must be given by the student. Failure to give permission could result in dismissal from the program. It may be necessary to dismiss students from a program if they are barred from practicing at any healthcare facility. Future employment and licensing may be affected by the results of a criminal background history check. The Board of Nurse Examiners for the State of Texas will also conduct a criminal background history check at the completion of the program. The background history check you will do for us will NOT guarantee you will meet the BNE requirements.
 - A current physical examination (within six months prior to beginning the nursing program) verifying good physical and mental health with required immunizations. Note: Students shall receive a complete series of Hepatitis B vaccine prior to the start of direct patient care.
 - Provide written documentation of successful completion of a CPR course designed for health care providers (e.g., **Basic Cardiac Life Support for Health Care Providers** from American Heart Association or **CPR for the Professional Rescuer** from the American Red Cross). No student will be permitted in the clinical setting without current documentation on file (must remain current throughout the VN program).
 5. In the event the application is rejected, the applicant may request a meeting with the VN Department Chairman. Such a request is submitted in writing and includes reasons why the application should be reviewed.
 6. All nursing students will be required to purchase professional liability insurance at the time of registration. Additional expenses incurred as part of the program are the responsibility of the student.

Note: Admission to Temple College does not constitute automatic acceptance into the nursing program. Admission to the nursing program is determined during the early spring for the summer semester. In the case of competitive admissions, requirements over and above the minimum may be necessary.

Applications will not be processed if any of the stated admission requirements are missing or incomplete.

Students seeking admission to the VN program are admitted to the program on the basis of the following criteria, with maximum point totals awarded as indicated:

- Pre-entrance test scores (4 points)
- Completion of these two courses: (1 point)
 1. BIOL 2404: Intro to Anatomy and Physiology
 2. ITSE 1294: Special Topics in Computer Science
- Temple College Service Area Residency Status (1 point)

Point totals are then used to rank candidates into priority groupings of I, II, III. Admission will be approved from within the priority groups with all criteria taken into consideration, not point totals alone. Any applicant scoring below 41 on the NET-PN composite score, or ranking below priority grouping III, will not be considered for admission.

One point will be deducted from an applicant's point total if the applicant has failed any nursing course in another vocational nursing program.

PROMOTION

Once a student is accepted into and begins the VN curriculum, it is expected that the student will continue to progress directly to the next semester's courses. In order to do this, the student must:

1. Have completed all previously required courses with a "C" grade (2.0 based on a 4.0 scale) or better;
2. Maintain good academic standing (see the College catalog, Minimum Academic standards, Scholastic Probation, & Scholastic Suspension policies);
3. Meet all general Temple College requirements (be approved for registration).
4. Failure in any required nursing course indicates the possibility of failure on the board exam. Therefore, after a second nursing program failure or withdrawal for any reason, a student may not reapply.

In all nursing courses, the following grading scale will be used.

Numerical Value	Letter Grade	Points
100-93	A	4.0
92-85	B	3.0
84-75	C	2.0
Below 75	F	0

The minimum passing grade in each nursing course is a "C" or 2.0 on the 4.0 scale. Further grading criteria can be found in each course outline.

READMISSIONS

Students may apply for readmission to the VN program following their withdrawal or dismissal by submitting a new application to the VN Program office. Students requesting readmission who have successfully completed any nursing courses more than two years prior to the request will be required to repeat the admission process and re-enroll in all nursing program courses. All policies specified by Temple College for readmitting students will apply (see the College catalog section on readmission under the Application for Admission policy). Applicants being readmitted to the first semester of nursing courses will be considered using the same criteria as new applicants. All requests for readmission are determined by the priority criteria as listed below. Applicants being considered for readmission to other semesters will be considered on a space available basis by the VN Department Chairman (See prioritization listing).

The Department Chairman will review the applicant's record and make the recommendations as to placement in the program.

A student who was dismissed for an unsatisfactory grade in a nursing course (class and/or clinical) will be asked to discuss the problems that led to dismissal and actions that have been taken that would enable him/her to reasonably expect success in completing the program, passing the licensing exam, and contributing to the profession of nursing.

After a second nursing program failure or withdrawal, a student is not eligible for readmission.

TRANSFER TO THE TC VN PROGRAM FROM ANOTHER NURSING PROGRAM

Transfer students who have been enrolled in an approved VN level nursing school will be considered by the Department Chairman for admission on a space available basis. Also, all policies specified by Temple College for accepting transfer students will apply (see the College catalog section on transfer students under Application for Admission and Academic Honors and Standards policies).

Required non-nursing courses will be evaluated for transferability by the Division Director of Enrollment Management and the VN Department Chairman. The student must arrange for all official transcripts to be sent directly to the Admissions and Records office for any non-nursing course they wish to have considered for transfer. In addition, if a course description is not readily available in the Admissions and Records office, the student will be responsible for providing a copy of the appropriate course description prior to the final determination. An official copy of the transcript and course description should also be sent to the VN Department office.

Required nursing courses will be evaluated for transferability by the VN Department Chairman, in association with the Division Director of Enrollment Management. The student must arrange for an official transcript to be sent directly to the Admissions and Records office. In addition, the student will be responsible for providing a copy of the course description, syllabus, objectives, and an official transcript to the VN Department Chairman. Prior to the final determination, the VN Department Chairman may request the student to provide further information and may consult with specific faculty regarding the acceptability of potential nursing transfer courses into the Temple College curriculum.

Upon final determination of the transferability of any courses, the VN Department Chairman will approve the curriculum plan to be followed by the transfer student. Any student transferring into the nursing program from another nursing program will enter Temple College VN program with only one attempt to complete the program.

PRIORITIZATION LISTING FOR READMISSIONS AND TRANSFERS

Request for readmission or transfer students will be prioritized as follows:

1. First priority: Former Temple College students with a passing grade in previous nursing courses.
2. Second priority: Transfer students with passing grades in previous nursing courses.
3. Third priority: Former Temple College students with a previous nursing course failure.
4. Fourth priority: Transfer students with a previous nursing course failure.

Within each priority group, preference is given based on nursing GPA.

EXIT EXAM

All candidates for graduation will be required to pass an exit level exam before graduating from the Vocational Nursing program.

CERTIFICATE OF VOCATIONAL NURSING
(TSI WAIVED)

Note: This is a full-time program. All individuals admitted to this program must enroll in a prescribed set of courses for three consecutive semesters. Individuals may not enroll on a part-time student basis.

VOCATIONAL NURSING REQUIREMENTS (47 semester hrs.)**Summer semester**

VNSG 1423	Basic Nursing Skills.....	4
BIOL 2404	Intro to Human Anatomy & Physiology	4
VNSG 1126	Gerontology	1
VNSG 1122	Vocational Nursing Concepts.....	1
VNSG 1160	Clinical – LVN Training I.....	1
VNSG 1136	Mental Health	1
	Total	12

Fall semester

VNSG 1330	Maternal-Neonatal Nursing.....	3
VNSG 2331	Advanced Nursing Skills	3
VNSG 1231	Pharmacology	2
VNSG 1509	Nursing in Health & Illness II	5
VNSG 1560	Clinical – LVN Training II	5
	Total	18

Spring Semester

VNSG 1334	Pediatrics	3
VNSG 1510	Nursing in Health & Illness III	5
ITSE 1294	Special Topics in Computer Science	2
VNSG 2561	Clinical – LVN Training III	5
VNSG 1119	Professional Development	1
VNSG 1138	Mental Illness.....	1
	Total	17
	Total Hours	47

RESPIRATORY CARE

The Respiratory Care Program is accredited by the Committee on Accreditation for Respiratory Care Education (CoARC) of the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The program provides educational experiences and all course work necessary to prepare the student as an advanced respiratory therapist and qualify the graduate for the credentialing exams offered by the National Board for Respiratory Care (NBRC). Students desiring admission into the Respiratory Care Program must first meet the basic entrance requirements for Temple College. They then must file for admission to the Respiratory Care Program.

Program Admission Criteria

- I. A completed portfolio should be submitted to the Respiratory Care Department by the third Monday in June. The portfolio should contain the following:
 - A. Texas Success Initiative scores - all candidates should have passed all three parts of an assessment test by this time in order to be considered for full enrollment.
 - B. Departmental aptitude test: HOBET - all candidates should achieve the minimum passing score established by the department for the test.
 - C. Complete a structured tour at the VA and Scott & White hospitals and turn in the appropriate report form.
 - D. Copies of all relevant transcripts: (1) High School, (2) College/University, (3) Military Service schools, (4) other (proprietary schools, etc.)
 - E. Two letters of reference.
 - F. Complete a series of mandated immunizations, including Hepatitis B (the first two inoculations in the series must be completed by the end of June of the year the student seeks admission into the program).
 - G. Complete a physical exam and receive medical clearance to participate in the program.
 - H. Special consideration will be given to those prospective students desiring admission who are transferring from military programs and/or those programs accredited by CoARC.
- II. Interview with the Respiratory Care selection panel. Candidates will be interviewed separately by at least three different panel members.
- III. Letters of notification should be mailed by the close of business on the Friday following the selection process. In the event a candidate is not selected for entry into the program at this time, alternatives will be made available at the candidate's request.

Criminal background checks will be required by clinical affiliated healthcare institutions, and it is the responsibility of the student to pay for and have such a background check performed no more than 30 days prior to the beginning of the first clinical course. Drug screenings may also be done for cause at any time by Temple College or any health care facility associated with Temple College. Permission for the criminal background check must be given by the student. Failure to give permission will result in the student being ineligible for admission to the program.

PROMOTION

Students must maintain a "C" or better course grade in all respiratory care classes in order to continue in the program on schedule. In all other supporting classes the student must maintain at least an overall "C" (2.0) average. Failure to maintain academic requirements may temporarily or permanently discontinue the student's progress in the program. Re-admission to the program is not guaranteed but depends on the availability of available training slots and resolution of issues related to the non-passing grade at the time the student desires re-entry. Re-admission is also contingent upon review and evaluation of the student's grades, performance and remediation while previously enrolled in the program, as well as work completed since that time. In these the Department Chairman and Faculty will meet to approve the student's readmission into the program and determine needed course requirements.

A grade of "D" in any Respiratory Care course will result in the student having to "Stop Out;" i.e., being dropped from the program until the next year, when the course may be repeated. A particular course may be repeated only once. If a student is unsuccessful the second time they will be dropped from the program permanently. A student may not make more than two D grades in the entire program without being dropped. A grade of "F" will result in the student being dropped from the program without recourse to reapply.

Liability insurance for clinical practice is purchased through the College at approximately \$28. The cost is assessed as part of the fee for the first clinical course (RSPT 1360) and covers the student for the rest of the program.

Students must take a comprehensive NBRC-like exit exam as a major curriculum component in order to fully satisfy the requirements for the last clinical course (RSPT 2362). Students will have an additional opportunity to pass the exit examination if they are unsuccessful on the first administration. When all curriculum requirements are satisfied an Associate of Applied Science Degree is awarded. The student then becomes an advanced respiratory therapist graduate and upon applying to the Texas Department of State Department of Health Services is eligible to be credentialed as a

Respiratory Care Practitioner (RCP) once the Certified Respiratory Therapist credential is attained. The graduate, should expect to take the CRT as soon as possible after graduation which will then enable them to sit for the two-part Registry Examination for Advanced Respiratory Therapy Practitioners offered by the NBRC. Upon passing both the Written Registry and Clinical Simulation exams the candidate becomes a Registered Respiratory Therapist (RRT).

Students are encouraged to become student members of the American Association for Respiratory Care, Texas Society for Respiratory Care, and the Association of Respiratory Care Students (a TC student club.) Each of these organizations will aid the student in becoming more familiar with the field of respiratory care.

ASSOCIATE OF APPLIED SCIENCE DEGREE

Respiratory Care

PREREQUISITES

ENGL 1301	Composition I.....	3
BIOL 2401	Human Anatomy and Physiology I.....	4
Elective	Social/Behavioral Science	3
	Total	10

FIRST YEAR

Fall Semester

RSPT 1410	Respiratory Care Procedures I.....	4
RSPT 1307	Cardiopulmonary Anatomy and Physiology.....	3
RSPT 1201	Introduction to Respiratory Care	2
BIOL 2402	Human Anatomy and Physiology II.....	4
	Total	13

Spring Semester

RSPT 2317	Respiratory Care Pharmacology	3
RSPT 1411	Respiratory Care Procedures II.....	4
RSPT 1360	Clinical - Respiratory Therapy Technician.....	3
RSPT 2310	Cardiopulmonary Disease.....	3
	Total	13

Summer (12 weeks)

RSPT 2660	Clinical - Respiratory Therapy Technician.....	6
	Total	6

SECOND YEAR

Fall Semester

RSPT 2305	Pulmonary Diagnostics	3
RSPT 2414	Mechanical Ventilation	4
RSPT 2353	Neonatal/Pediatric Cardiopulmonary Care.....	3
RSPT 2361	Clinical - Respiratory Therapy Technician.....	3
ENGL 2311	Technical & Business Writing.....	3
	Total	16

Spring Semester

RSPT 2239	Advanced Cardiac Life Support.....	2
RSPT 2230	Exam Preparation.....	2
RSPT 2425	Cardiopulmonary Diagnostics	4
RSPT 2362	Clinical - Respiratory Therapy Technician.....	3
Elective	Fine Arts/Humanities.....	3
	Total	14
	Total Hours	72

SURGICAL TECHNOLOGY

The one-year (full-time) Surgical Technology Program provides technical and educational experiences that prepare the graduate for the position as a surgical technologist in the operating room and to meet the eligible criteria to write the national certification examination sponsored by the National Board of Surgical Technology and Surgical Assisting. New classes begin in the summer semester of each year. Applications are processed prior to the actual beginning of the surgical technology classes. Admission to the program is based upon completion of all requirements as listed below with student selection according to the HOBET reading and math scores, with emphasis placed on the reading scores.

Criminal background history checks are required before entry into the clinical sites. Drug testing may be administered at any time by Temple College or any health care facility associated with Temple College. The criminal background history check will be at the expense of the student. Failure to meet the criminal background requirements of the clinical sites will result in dismissal from the program.

Updated and supplemental information can be viewed on the Temple College website,
www.templejc.edu/dept/SurgTech/SurgTech1.htm.

Students desiring admission to the Surgical Technology Program must complete the following:

1. Complete the Temple College admission procedure.
2. Attend Surgical Technology Information Session (call department for dates and time).
3. Pass the HOBET pre-entrance examination with established departmental minimum scores.
4. Submit a formal application to the program.

Uniforms in the classroom will consist of a Caribbean blue scrub suit with name badge, white below knee-length lab coat with attached ST patch, and white duty shoes. A list of anticipated expenditures is provided at the Information Session.

Prior to entering the clinical phase, students will be required to meet the criminal background requirements and submit a physical examination, including immunizations and medical-mandated tests, with medical clearance by a physician. Note: the Hepatitis B series of immunizations must be completed before entry into the clinicals the end of September.

Requirements for graduation include:

1. Complete all courses as required in the stated Surgical Technology curriculum with a grade of "C" or better.
2. Successfully pass the Surgical Technology Exit Examination.
3. Complete stated clinical competencies.
4. Present a current "Health Care Provider" or "Professional Rescuer CPR" certificate.
5. Write the Program Assessment Examination.

Students are encouraged to join the Association of Surgical Technologists, Inc. Additional information concerning a career as a surgical technologist is available at www.ast.org.

LEVEL I - CERTIFICATE (TSI WAIVED) Surgical Technology

Summer Entry

First Semester

BIOL	2404	Introduction to Human Anatomy & Physiology.....	4
SRGT	1301	Medical Terminology	3
SRGT	1509	Fundamentals of Perioperative Concepts and Techniques	5

Second Semester (Fall Semester)

First 4 Weeks

SRGT	1505	Introduction to Surgical Technology.....	5
------	------	--	---

Last 12 Weeks

SRGT	1541	Surgical Procedures I.....	5
SRGT	1560	Clinical - Surgical Technology/ Technologist, Introductory.....	5

Third Semester (Spring Semester)

First 8 Weeks

SRGT	1542	Surgical Procedures II.....	5
SRGT	1361	Clinical - Surgical Technology/ Technologist, Intermediate	3

Second 8 Weeks

SRGT	1462	Clinical - Surgical Technology/ Technologist, Advanced.....	4
SRGT	2130	Professional Readiness	1
Total Hours			40

ACCOUNTING

ACCT 2401: Principles of Accounting I – Financial (4:3-3)

Analysis and recording of business transactions; financial statement preparation and analysis; proprietorship, partnership, and corporation accounting. R, M.

ACCT 2402: Principles of Accounting II – Managerial (4:3-3)

Continuation of ACCT 2401. Introduction to budgeting, cost accounting and control with methods of measuring performance, and product pricing. This course is offered in the spring semester. Prerequisite: ACCT 2401 or consent of instructor. R, M.

ANTHROPOLOGY

ANTH 2301: Physical Anthropology (3:3-0)

The primary objective of this course is to provide students with an understanding of the biological diversity of human beings throughout the world. The course gives an overview of human origins and biocultural adaptations. It also introduces methods and theory in the excavation and interpretation of material remains of past cultures. R

ANTH 2302: Introduction to Archaeology (3:3-0)

Archaeology is the study of the material remains of past human behavior. Focus is on the multi disciplinary methodology of archaeology, beginning with an examination of the material remains that archaeologists use. The course demonstrates how archaeologists reconstruct past environments, subsistence, technology, settlement patterns and social organization, and their attempt to explain cultural change through time. Case studies are examined to demonstrate the methodologies that archaeologists actually use to address anthropological questions.

ANTH 2346: General Anthropology (3:3-0)

As the "science of man," anthropology examines human biological and cultural variation, both present and past. The course begins with a foundation in human biology and examines the genetic and cultural causes of diversity. It then follows man's beginnings in Africa to his dominion of the earth, and in the process, examines the development and divergence of cultural systems found throughout the world. R

ANTH 2351: Cultural Anthropology (3:3-0)

The primary objective of this course is to develop students' understanding of the diversity of human cultural systems around the world. The course includes key concepts, methods and theory in the study of cultural diversity, social institutions, linguistics, and culture change among world peoples.

ANTH 2389: Academic Cooperative in Anthropology (3:3-4)

Integrates on-campus study with practical experiences in anthropology/archaeology. In conjunction with class seminars and consultation with the instructor, each student sets specific goals and objectives in the study of anthropology/archeology.

ART

Those students planning to pursue a major or minor in art should enroll in the following core courses during their freshman year: ARTS 1303, ARTS 1304, ARTS 1311, ARTS 1312, and ARTS 1316. Departments of Art at many senior institutions also expect students to complete ARTS 1301. Students should consult the catalogs of senior colleges to which they may transfer before planning their freshman year here.

Students interested in enrolling in an art course as an elective, or for personal enrichment, may take individual courses with the consent of the instructor or an advisor.

ARTS 1301: Art Appreciation (3:3-0)

An introduction to the visual arts through an exploration of their purposes and processes. May be taken either year of the curriculum. This course is open to both non-art majors and art majors or minors. Students with little or no background in art are welcome in the course. R, W

ARTS 1303: Art History Survey I (3:3-0)

A historical and thematic examination of painting, sculpture, architecture, and other arts. May be taken in either year of the curriculum. This course is open to both non-art majors and art majors and minors. Students with little or no background in art are welcome in the course. This course offered usually in the fall semester. R, W

ARTS 1304: Art History Survey II (3:3-0)

A further historical and thematic examination of painting, sculpture, architecture, and other arts. May be taken in either year of the curriculum. This course is open to both non-art majors and art majors and minors. Students with little or no background in art are welcome in the course. This course offered usually in the spring semester. R, W

ARTS 1311: Design I (3:2-4)

A studio course concerning the fundamentals of art with emphasis on 2-dimensional concepts. This course offered usually in the fall semester. Lab fee \$24.

ARTS 1312: Design II (3:2-4)

A studio course concerning the fundamentals of art with emphasis on 3-dimensional concepts. This course offered usually in the spring semester. Lab fee \$24.

ARTS 1316: Drawing I (3:2-4)

A studio course investigating a variety of media techniques, descriptive, and expressive possibilities. Offered in the fall and spring semesters. Lab fee \$24.

ARTS 1317: Drawing II (3:2-4)

A further investigation of media techniques, descriptive, and expressive possibilities. Lab fee \$24.

ARTS 2313: Design Communications I (3:2-4) - ILLUSTRATOR

Communication of ideas through processes and techniques of graphic design and illustration using the Macintosh computer. This course will include page layout and illustration created with appropriate software. Lab fee \$24.

ARTS 2314: Design Communications II (3:2-4) - PHOTOSHOP

Communication of ideas through processes and techniques of graphic design and illustration using the Macintosh computer. This course will include techniques of scanning and manipulating images with appropriate software. Lab fee \$24.

ARTS 2316: Painting I (3:2-4)

A studio course exploring the potentials of painting media with emphasis on color and composition. Lab fee \$24.

ARTS 2317: Painting II (3:2-4)

A further investigation of painting with emphasis on individual expression. Prerequisite for Art Majors: ARTS 2316. This course offered usually in the spring semester. Lab fee \$24.

ARTS 2323: Life Drawing I (3:2-4)

A studio course emphasizing structure and action of the human figure. Model fee \$50.

ARTS 2326: Sculpture I (3:2-4)

A studio course exploring sculptural approaches in a variety of media. Prerequisite for Art Majors: Freshman art core. Lab fee \$24.

ARTS 2327: Sculpture II (3:2-4)

The purpose of Sculpture II is to continue the exploration of the language of 3-dimensional form through hands-on creative studio experiences. Lab fee \$24.

ARTS 2333: Printmaking I (3:2-4)

An introductory studio class in basic printmaking processes and techniques. Printmaking supplies fee \$35.

ARTS 2334: Printmaking II (3:2-4)

A further investigation of printmaking processes and techniques. Printmaking supplies fee \$35.

ARTS 2346: Ceramics I (3:2-4)

An introductory studio course in basic ceramic processes: hand building, throwing, decorating, and firing techniques. Lab fee \$24.

ARTS 2347: Ceramics II (3:2-4)

A further investigation of ceramic processes with an emphasis on throwing, decorating, and firing techniques. Lab fee \$24.

ARTS 2348: Digital Art I (3:2-4)

A studio course which explores the potential of the computer hardware and software medium for their visual, conceptual, and practical uses in the visual arts. Lab fee \$24.

ARTS 2349: Digital Art II (3:2-4)

A studio course which uses computer hardware and software as a medium for visual and conceptual expression in the visual arts. Lab fee \$24.

ARTS 2356: Photography I (3:2-4)

This studio course is an introduction to black and white photography as an artistic medium. Learn fundamental photographic theory, methods, materials, and equipment. Student must provide film camera. Photography supplies fee \$35.

ARTS 2357: Photography II (3:2-4)

This studio course offers further investigation into the possibilities of photography as an artistic medium. Student must provide film camera. Photography supplies fee \$35.

BIOLOGY

BIOL 1406: Biology for Science Majors I (4:3-3)

Considers the basic principles of biology: the nature of science, simple chemistry important in biological systems, cytology, energetics, mitosis and meiosis, patterns of inheritance, DNA and its structure, gene regulation, evolution, populations, and ecology. Usually offered in fall, spring, and first summer semesters. \$24 lab fee. R, W

BIOL 1407: Biology for Science Majors II (4:3-3)

Considers the great diversity of living organisms. A discussion of how living things are classified and of the Five Kingdom scheme leads to an analysis of each of the Kingdoms with special emphasis on the form and function of the most advanced members of the Plant and Animal Kingdoms. Viruses also investigated. This course meets the recommended requirement for BIOL 1424. Usually offered in the spring and second summer semesters. \$24 lab fee. R, W

BIOL 1411: General Botany (4:3-3)

This course emphasizes the form and function and the evolution and ecology of vascular plants, with an emphasis on flowering plants. There is also a brief survey of the plant kingdom. The course prepares the student for upper-level courses in botany. This course meets the recommended requirements for BIOL 1424. Usually offered in the fall semester. No Prerequisite required. \$24 lab fee. R, W

BIOL 1413: General Zoology (4:3-3)

Emphasizes the cytology, morphology, physiology, taxonomy, and ecology of animals. Field trips will be conducted to observe animals in the wild. Usually offered in the spring semester. \$24 lab fee. R, W

BIOL 1424: Systematic Botany (4:3-3)

Emphasis on collection and identification of major plant families of the angiosperms although all vascular plants are considered. Discussion of the classification of plants, including the artificial, natural, and the more recent attempts at phylogenetic classification schemes such as biosystematics; also, the underlying principles of plant nomenclature, the origin of the angiosperms, and the role of herbaria and botanical gardens. Usually offered in the spring semester.

Recommended: BIOL 1407 or BIOL 1411 or permission of the instructor. \$24 lab fee. R, W

BIOL 2316: Genetics (3:3-0)

A study of Mendelian, molecular, and population genetics as developed since 1900. The course considers among other topics basic inheritance, transmission of hereditary material, linkage, chromosome mapping, the central role of DNA and its function in the cell, as well as genetics of populations and its importance in evolutionary theory. This is a non-laboratory science course. Recommended: BIOL 1406 or permission of the instructor. R, W

BIOL 2401: Anatomy and Physiology I (4:3-3)

The first of two sequential courses in human anatomy and physiology for students majoring in Nursing and certain other allied health fields. Structure and function of the human body are integrated in a systems approach. Function is explained in terms of microanatomy and gross anatomy. In the introduction cell chemistry and cytology are emphasized. Histology, the skin, the skeletal system, and the muscular system are included in the first semester. \$24 lab fee. R, W

BIOL 2402: Anatomy and Physiology II (4:3-3)

The second of two sequential courses in human anatomy and physiology for students majoring in Nursing and certain other allied health fields. The organ systems covered are: nervous, endocrine, circulatory and immunity against disease, respiratory, digestive, urinary, and reproductive. Prerequisite: BIOL 2401, or permission of the instructor. \$24 lab fee. R, W

BIOL 2404: Anatomy and Physiology (4:3-3)

A one-semester course in human anatomy and physiology for students majoring in Licensed Vocational Nursing, Surgical Technology, Respiratory Technology, and Emergency Medical Technology. Lecture and laboratory materials are taught in an integrated approach. This course is offered most semesters and is also be offered via internet during some semesters. \$24 lab fee. (This is a one semester condensed course and does not substitute for BIOL 2401 or 2402.)

BIOL 2421: Microbiology for Science Majors (4:3-3)

Morphology and physiology of microorganisms with emphasis in the laboratory on bacteria. Microorganisms of medical, economic and environmental importance are stressed. This course is recommended for students in Nursing and allied health programs. Prerequisite: 3 hours of biological science. \$24 lab fee. R, W

BIOL 2428: Vertebrate Zoology (4:3-3)

An introductory study of the vertebrates with emphasis on natural history and systematics; the ecology, distribution, and morphology are also studied. This course includes field trips for observing and collecting. Usually offered in the fall semester. \$24 lab fee. R, W

BIOL 2470: General Entomology (4:3-3)

A survey of the major orders of insects with emphasis on the taxonomy, morphology, ecology, and life history. Special emphasis will be given to those forms affecting man and domestic animals. Field trips and a collection will be required. Prerequisite: One college course in Biology or consent of instructor. Usually offered in the summer session. \$24 lab fee. R, W

BIOTECHNOLOGY

BITC 1311: INTRODUCTION TO BIOTECHNOLOGY (3:3-0)

An introduction to biotechnology, including career exploration, history and applications of DNA/RNA technology, molecular biology, genomics, proteomics, bioethics, laboratory operations and safe practices. The course is supplemented with laboratory exercises, demonstrations and field trips that emphasize biotechnology applications in a variety of settings. Prerequisites: College biology course or Advanced Placement biology; BIOL 1406 recommended ; \$24 lab fee, R,W,M.

BITC 2411: BIOTECHNOLOGY LABORATORY INSTRUMENTATION (4:3-3)

Presentation of the theory, applications, and operation of various analytical instruments used in research and biotechnology laboratories. Students will practice separation and identification techniques, including electrophoresis, spectrophotometry, and chromatography. Laboratories will focus on qualitative and quantitative analyses. Prerequisites: BITC 1311 and CHEM 1311 and CHEM 1111. \$24 lab fee, R, W, M

BITC 1402: BIOTECHNOLOGY LABORATORY METHODS AND TECHNIQUES (4:3-3)

A study of laboratory operations, management, equipment, instrumentation, problem-solving, quality assurance and quality control procedures, laboratory math, and safety practices. Researching information on the computer and data analysis using spreadsheets is also covered. Laboratories involve practice with pH meters, spectrophotometers, electrophoresis, chromatographs, preparation of solutions and dilutions, data analysis and separation techniques. Prerequisite: BITC 1311. \$24 lab fee, R,W,M

BITC 2431: CELL CULTURE TECHNIQUES (4:3-3)

Theory and applications of cell culture techniques. Laboratory emphasis is on the principles and practices of initiation, cultivation, maintenance, preservation of cell lines and applications. Prerequisite: BITC 1311, \$24 lab fee, R, W, M.

BITC 2401: MOLECULAR BIOLOGY TECHNIQUES (4:3-3)

In depth coverage of the theory and laboratory techniques in molecular biology with an emphasis on gene expression and regulation, transcription, DNA and RNA techniques, and nucleic acids. Prerequisites: BITC 1311 and BITC 2411, \$24 lab fee, R, W, M.

BITC 1250: SPECIAL STUDIES AND BIOETHICAL ISSUES OF BIOTECHNOLOGY (2:2-0)

Addresses current events, skills, attitudes, and professional behavior, pertinent to biotechnology and professional development in the field. The course will also explore ethical and legal behaviors in the context of the biotechnology industry. Federal, state, and local regulations will be addressed. Prerequisite: BITC 1311, R,W.

BITC 1445: MEDICAL BIOTECHNOLOGY (4:3-3)

Biotechnology as it applies to medicine and medical research. Includes molecular mechanisms underlying diseases such as cancer, diabetes, heart disease and AIDS. Covers the applications of biotechnology to the diagnosis and treatment of disease, the development of drugs or therapeutic agents. Emphasizes research and medical -related biotechnology methods and procedures. Prerequisite: BITC 1311 . R,W,M; \$24 lab fee.

BITC 2587: INTERNSHIP - BIOTECHNOLOGY LABORATORY TECHNICIAN (5:0-0-30)

A Capstone work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts in a biotechnology laboratory. The student will be supervised by a professional in the assigned laboratory and will be expected to achieve the objectives related to the site. Course is a requirement for the Associate of Applied Science Degree in Biotechnology and the Advanced Technical Certificate in Biotechnology. Prerequisites: BITC 1311, 2411, 1402, 2431, 1445, 1250 and 2401. Students must be in good academic standing (Overall GPA \geq 2.0 and Biotechnology course GPA \geq 2.0)) and must submit an application packet to the Department Chair at least 1 semester before the Internship. Final approval for enrollment is required from the Department Chair. Internship sites are limited and enrollment is on a first-come first serve basis. This course is full-time, 40 hours per week, for 12 weeks. Liability insurance (fee ~ \$20.00), an acceptable criminal background check (applicable fee), hepatitis B vaccinations and health record are required.

Enhanced Skills Certificate Courses

BITC 2459: HUMAN GENOMICS (4:3-3)

The nature of the human genome, the structure of chromosomes, gene sequencing, gene regulation and the techniques used in genetic analyses. Includes emerging technologies in genomics and their use in medical related research. An advanced course for students who have completed at least an A.A.S. degree in Biotechnology. Prerequisite: Approval of the Biotechnology Department Chair and/or instructor. \$24 lab fee, R, W, M.

BITC 2455: PROTEOMICS (4:3-3)

Current and emerging technologies and techniques for analyzing protein structure and function, gene expression, protein protein interactions and the "proteome." Includes correlation of protein structure and expression to various diseases. Also covers the use of bioinformatics in the analysis of the proteome. Focus includes the role of proteomics in the development of drugs and diagnosis/treatment of disease. The laboratory will explore the technologies used to study the proteome. An advanced course for students who have completed at least an A.A.S. degree in Biotechnology. Prerequisite: Approval of the Biotechnology Department Chair and/or instructor. \$24 lab fee, R, W, M.

BUSINESS COMPUTER INFORMATION SYSTEMS

BCIS 1301: Microcomputer Applications: (3:2-2)

Overview of computer information systems. Introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied. Lab fee \$24.

BCIS 1316: Computer Programming -BASIC (3:2-2)

Introduction to business programming techniques. Includes structured programming methods, designing customized software applications, testing documentation, input specification, and report generation. Lab fee \$24.

BCIS 1405: Business Computer Applications (4:3-2)

This course discusses computer terminology, hardware, software, operating systems and information systems relating to the business environment. The main focus of this course is on business application of software, including word processing, spreadsheets, databases, presentations graphics and business-oriented utilization of the internet. Lab fee \$24.

BCIS 1420: Introductory C Programming (4:3-2)

Introduction to business programming techniques using the C or C + + language. Includes structured programming methods, designing customized software applications, testing documentation, input specification, and report generation. This course is offered in the spring semester. Lab fee \$24.

BCIS 2390: System Analysis & Design (3:3-1)

Analysis of business information needs and preparation of specifications and requirements for appropriate data system solutions. Includes instruction in information requirements analysis, specification development and writing, prototype evaluation, and network application interfaces. Lab fee \$24.

BCIS 2416: Advanced Structured Programming Techniques BASIC (4:3-2)

Further applications of business programming techniques. Advanced topics may include varied file access techniques, system profiles and security, control language programming, data validation program design testing, and other topics not normally covered in an introductory information systems programming course. Visual BASIC is the programming language used. Lab fee \$24.

BCIS 2420: Advanced C Programming (4:3-2)

Further applications of business programming techniques. Advanced topics may include varied file access techniques, system profiles and security, control language programming, data validation program design and testing, and other topics not normally covered in an introductory information systems programming course. This course is offered in the fall semester and should be taken during the student's second year. Lab fee \$24.

BUSINESS/GENERAL**ACNT 1303: Introduction to Accounting I (3:3-0)**

A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll.

ACNT 1311: Introduction to Computerized Accounting (3:2-2)

Introduction to utilizing the computer in maintaining accounting records, making management decisions, and processing common business applications with primary emphasis on a general ledger package. \$24 lab fee.

POFT 1301: Business English (3:2-2)

Introduction to practical application of basic language usage skills with emphasis on fundamentals of writing and editing for business. Lab fee \$24.

POFT 1309: Administrative Office Procedures I (3:2-2)

Study of current office procedures, duties, and responsibilities applicable to an office environment. Lab fee \$24.

POFT 1313: Professional Development for Office Personnel (3:2-2)

Preparation for the work force including ethics, interpersonal relations, professional attire, and career advancement. Lab fee \$24.

POFT 1380: Cooperative Education – Administrative Assistant and Secretarial Science, General (3:1-20)

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

POFT 1429: Beginning Keyboarding (4:3-2)

Skill development in the operation of the keyboard by touch applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Lab fee \$24.

POFT 2312: Business Correspondence and Communication (3:2-2)

Development of writing and presentation skills to produce effective business communications. Lab fee \$24.

POFT 2401: Intermediate Keyboarding (4:3-2)

A continuation of keyboarding skills in document formatting, emphasizing speed, and accuracy. Emphasis on proofreading, editing, and following instructions, and keying documents from various copy. Lab fee \$24.

GENERAL BUSINESS**BUSG 1301: Introduction to Business (3:3-0)**

Fundamental business principles including structure, functions, resources, and operational processes.

BUSG 2309: Small Business Management (3:3-0)

Starting and operating a small business. Includes facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues.

BUSINESS**BUSI 1301: Business Principles (3:3-0)**

A course of study of the principles of the modern business world that provides a foundation for further study of other business courses. This course emphasizes the study of economics, global dimensions of business, ethics, forms of ownership, management, marketing, and finance.

BUSI 1307: Personal Finance (3:3-0)

A practical approach to the basic financial problems which confront individuals with special attention on budgeting, buying on credit, borrowing, savings, insurance, home ownership, investing, income taxes, social security, estate planning, and retirement planning to develop a responsibility for personal money management.

BUSI 2301: Business Law (3:3-0)

General principles of law to acquaint the student with the legal environment in which business enterprise operates in its relationship to the whole body of law. Topics include historical and constitutional foundations of law, ethics, courts, court procedures, torts (against both persons and businesses), criminal law, and contracts.

BUSI 2302: Legal Environment of Business (3:3-0)

An application of the general principles of law concerning sound business decisions relation to sales contracts, warranties, commercial paper, secured transactions and bankruptcy, agency and employment discrimination, real property and environmental law, personal property, bailments, and insurance.

BUSINESS/MANAGEMENT**BMGT 1301: Supervision (3:3-0)**

A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined.

BMGT 1305: Communications in Management (3:3-0)

Basic theory and processes of communication skills necessary for the management of an organization's workforce.

BMGT 1325: Office Management (3:3-0)

Systems, procedures, and practices related to organizing and planning office work, controlling employees' performance, and exercising leadership skills.

BMGT 1327: Principles of Management (3:3-0)

Concepts, terminology, principles, theories, and issues in the field of management.

BMGT 1341: Business Ethics (3:3-0)

Discussion of ethical issues, the development of a moral frame of reference and the need for an awareness of social justice in management practices and business activities. Review of ethical responsibilities and relationships between organizational departments, divisions, executive management, and the public.

BMGT 1382: Cooperative Education I-Business Administration and Management, General (3:1-20)

Career-related activities encountered in the student's area of specialization are offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

BMGT 1383: Cooperative Education II-Business Administration and Management, General (3:1-20)

Career-related activities encountered in the student's area of specialization are offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

BMGT 2303: Problem Solving and Decision Making (3:3-0)

Decision making and problem solving processes in organizations, utilizing logical and creative problem solving techniques.

Application of theory is provided by experiential activities such as small group discussions, case studies and the use of other managerial decision aids.

BMGT 2309: Leadership (3:3-0)

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify.

BMGT 2331: Principles of Quality Management (3:3-0)

Quality of productivity in organizations. Includes planning for quality throughout the organization, analysis of costs of quality, and employee empowerment.

BMGT 2341: Strategic Management (3:3-0)

A study of the strategic management process, including analysis of how organizations develop and implement a strategy for achieving organizational objectives in a changing environment.

BMGT 2382: Cooperative Education III-Business Administration and Management, General (3:1-20)

Career-related activities encountered in the student's area of specialization are offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

CHEMISTRY**CHEM 1104: Chemical Calculations (1:1-1)**

This course involves chemical calculations with emphasis on computer techniques for collection, storage, graphing, and reporting of data. Interfacing of equipment for processing of data is reinforced through demonstrations and projects.

This course is individualized instruction. Offered when sufficient demand exists.

Prerequisites: CHEM 1111, 1311, and permission of the instructor. \$24 lab fee. M

CHEM 1105: Introductory Chemistry Laboratory I (1:0-3)

This course is designed to complement CHEM 1305. The laboratory work involves beginning laboratory techniques, lab safety, fundamental experimental data operations, and fundamental data calculations. Prerequisite: CHEM 1305 or concurrent enrollment in CHEM 1305. \$24 lab fee. R

CHEM 1111: General Chemistry Laboratory I (1:0-3)

This course is designed to complement CHEM 1311. The laboratory work involves beginning laboratory techniques, lab safety, fundamental experimental data operations, and chemical calculations.

Prerequisite: CHEM 1311 or concurrent enrollment in CHEM 1311. \$24 lab fee. R, M

CHEM 1112: General Chemistry Laboratory II (1:0-3)

This course is designed to complement CHEM 1312. The laboratory work includes laboratory techniques, qualitative analysis, pH of weak acids and bases, buffer systems, solubility, equilibrium, and chemical calculations. Prerequisites: CHEM 1111 and CHEM 1312 or concurrent enrollment in CHEM 1312. \$24 lab fee. R, M

CHEM 1305: Introductory Chemistry I (3:3-0)

This course is designed for students in nursing, respiratory therapy, and similar health care areas. It also serves as a basic introductory course for students not majoring in science who wish to investigate some of the fundamentals of chemistry while meeting a physical science degree requirement. It covers the metric system, fundamental laws and theories, the structure of matter, formula and equation writing, periodic classification, gas laws, acids, bases, salts and solutions. The student should consult with an advisor relative to the use of this course in a degree sequence. R

CHEM 1311: General Chemistry I (3:3-0)

CHEM 1311 provides a basis for advanced work in the sciences. Topics covered include fundamental laws and theories, the structure of matter and periodic classification relationships, bonding theory, acids, bases and salts, properties of gases and solutions. Emphasis is placed on chemical calculations. Prerequisite: High school algebra II or MATH 0350, R, M

CHEM 1312: General Chemistry II (3:3-0)

Topics studied include equilibrium systems, electrochemistry, thermochemistry, nuclear chemistry, advanced bonding, kinetics, pH, buffers, and a brief introduction to organic chemistry. Chemical calculations are stressed. Prerequisite: High school algebra II or MATH 0350 and CHEM 1311. R, M

CHEM 1407: Introductory Chemistry II (4:3-3)

This is a continuation of CHEM 1305. Radioactivity and nuclear changes, equilibrium systems, the pH scale, and chemical systems are studied. Most of the semester is devoted to the study of carbon compounds with emphasis on physiological chemistry. Includes a laboratory portion related to the lecture material. The student should consult an advisor on the use of this course in a degree sequence. Prerequisite: CHEM 1305 and CHEM 1105 or CHEM 1311 and CHEM 1111. \$24 lab fee. R, W

CHEM 1408: Introductory Chemistry II (4:3-3) -- Introduction to Bio-Organic Chemistry

This course is the equivalent of CHEM 1407 but with allied health emphasis. Topics include radioactivity, classes of organic compounds and their reactions. Also included is the study of carbohydrates, proteins, lipids, DNA and RNA, and important substances in biological processes. Includes a laboratory portion related to the lecture material. The student should consult an advisor on the use of this course in a degree sequence. Prerequisite: CHEM 1305 and CHEM 1105 or CHEM 1311 and CHEM 1111. \$24 lab fee. R, W

CHEM 2423: Organic Chemistry I (4:3-4)

This course is a systematic study of the aliphatic and aromatic hydrocarbons and their derivatives. Emphasis is placed on synthesis, mechanisms, stereoisomerism and practical applications. Laboratory techniques in synthesis and purification are stressed. Infrared instrumentation is used. This course is designed to satisfy pre-medical, pre-pharmacy, pre-engineering, chemistry and other science major requirements. Prerequisites: CHEM 1112 and 1312. \$24 lab fee. R, W

CHEM 2425: Organic Chemistry II (4:3-4)

This course is a continuation of CHEM 2423. Emphasis is placed on spectroscopy, organic reactions and mechanisms, and the study of the aromatic systems. Laboratory techniques in synthesis and qualitative analysis are stressed. Infrared instrumentation is used. Prerequisite: CHEM 2423. \$24 lab fee. R, W

CHILD DEVELOPMENT

CDEC 1303: Families, School and Community (3:3-1)

Study of the child, family, community, and schools. Includes parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content is aligned with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 16 hours field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations. Lab fee \$24.

CDEC 1311: Educating Young Children (3:3-1)

An introduction to the education of the young child. Includes developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content is aligned with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 16 hours of field experience with children from infancy through age 12 in a variety of settings with varied and diverse populations. Lab fee \$24.

CDEC 1317: Child Development Associate Training I (3:2-2)

Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observation skills, and child growth and development overview. The four functional areas of study are creative, cognitive, physical, and communication. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 1318: Wellness of the Young Child (3:3-1)

Factors impacting the well-being of young children. Includes healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content is aligned with State Board of Educator Certification Pedagogy and Professional Responsibilities standards. Requires students to participate in a minimum of 16 hours field experience with children from infancy through age 12 in a variety of setting with varied and diverse populations. Lab fee \$24.

CDEC 1343: Independent Study in Child Development (3:2-2)

Study of an approved career topic. Research, presentation of findings, and practical applications are emphasized as they relate to the selected topic. This course requires students to participate in 32 hours of relevant field experience. Departmental approval required for this course. Lab fee \$24.

CDEC 1354: Child Growth and Development (3:3-0)

Physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence. Prerequisite: CDEC 1311 or TECA 1311.

CDEC 1356: Emergent Literacy for Early Childhood (3:2-2)

An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based integrated curriculum. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 1358: Creative Arts for Early Childhood (3:2-2)

An exploration of principles, methods, and materials for teaching children music, movement, visual arts, and dramatic play through process-oriented experiences to support divergent thinking. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 1359: Children with Special Needs (3:3-0)

A survey of information regarding children with special needs including possible causes and characteristics of exceptionalities, intervention strategies, available resources, referral processes, the advocacy role, and legislative issues.

CDEC 1413: Curriculum Resources for Early Childhood Programs: (4:3-2)

A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. This course requires students to participate in 32 hours of relevant field experience. Lab fee \$24.

CDEC 1419: Child Guidance (4:3-2)

An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement and cultural influences. Practical application through direct participation with children. This course requires students to participate in 32 hours of relevant field experience. Lab fee \$24.

CDEC 1421: The Infant and Toddler (4:3-2)

A study of appropriate infant and toddler programs (birth to age 3), including an overview of development, quality routines, appropriate environments, materials and activities, and teaching/guidance techniques. This course requires students to participate in 32 hours of relevant field experience. Lab fee \$24.

CDEC 2307: Math and Science for Early Childhood (3:2-2)

An exploration of principles, methods, and materials for teaching math and science concepts and process skills through discovery and play. This course requires students to participate in 16 hours of relevant field experience. Prerequisite: TECA 1311 or CDEC 1311, CDEC 1413, or departmental approval. Lab fee \$24.

CDEC 2315: Diverse Cultural/Multilingual Education (3:2-2)

An overview of multicultural education to include relationship with the family and community to develop awareness and sensitivity to diversity related to individual needs of children. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 2322: Child Development Associate Training II (3:2-2)

A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Must have departmental approval prior to enrolling in this course. In order to pursue CDA credential, the student must be employed in a child care facility. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 2324: Child Development Associate Training III (3:2-2)

Continuation of the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management and professionalism. Must have departmental approval prior to enrolling in this course. In order to pursue CDA credential, the student must be employed in a child care facility. This course requires students to participate in 16 hours of relevant field experience. Lab fee \$24.

CDEC 2326: Administration of Programs for Children I (3:3-0)

Application of management procedures for early child care education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Must have departmental approval prior to enrolling in this course. Prerequisite: TECA 1311 or CDEC 1311.

CDEC 2328: Administration of Programs for Children II (3:3-0)

An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personnel management, team building, leadership, conflict resolution, stress management, advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Must have departmental approval prior to enrolling in this course. Prerequisite: TECA 1311 or CDEC 1311.

CDEC 2364: Practicum – Child Development (3:0-21)

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: TECA 1303 or CDEC 1303, TECA 1311 or CDEC 1311, TECA 1354 or CDEC 1354, TECA 1318 or CDEC 1318, CDEC 1356, CDEC 1358, CDEC 1413, CDEC 1419, CDEC 1421 and CDEC 2307, or concurrent enrollment, or approval of department/chair/program advisor.

CDEC 2441: The School Age Child (4:3-2)

A study of appropriate programs for the school age child (5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Prerequisite: TECA 1311 or CDEC 1311 or concurrent enrollment or approval by department chair/program advisor. This course requires students to participate in 32 hours of relevant field experience. Lab fee \$24.

CHILD DEVELOPMENT

TECA 1303: Families, School, and Community (3:3-1)

A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. This course requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations with a minimum of 16 hours of field experience. \$24 lab fee.

TECA 1311: Educating Young Children (3:3-1)

An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical, and professional responsibilities, and current issues. This course requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations with a minimum of 16 hours of field experience. \$24 lab fee.

TECA 1318 Wellness of the Young Child (3:3-1)

A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness and safety practices. Focus on local and national standards and legal implications of relevant policies and regulations. This course requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations with a minimum of 16 hours of field experience. \$24 Lab fee.

TECA 1354: Child Growth and Development (3:3-0)

A study of the physical, emotional, social, and cognitive factors impacting growth and development of children through adolescence.

COMPUTER-AIDED DESIGN

DFTG 1305: Technical Drafting (3:2-4)

Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Lab fee \$24

DFTG 1309: Basic Computer-Aided Drafting (3:2-4)

An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. Lab fee \$24.

DFTG 1317: Architectural Drafting - Residential (3:2-4)

Architectural drafting procedures, practices, and symbols. Preparation of detailed working drawings for residential structures. Emphasis on light frame construction methods. Lab fee \$24. Prerequisite: DFTG 1309 and DFTG 1305, or instructor approval.

DFTG 1358: Electrical/Electronics Drafting (3:2-4)

Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Lab fee \$24. Prerequisite: DFTG 1309 and DFTG 1305, or instructor approval.

DFTG 2302: Machine Drafting (3:2-4)

Production of detail and assembly drawings of machines, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings. Lab fee \$24. Prerequisite: DFTG 1309 and DFTG 1305, or instructor approval.

DFTG 2306: Machine Design (3:2-4)

Theory and practice of design. Projects in problem solving, including press fit, bolted and welded joints, and transmission components. Lab fee \$24.

DFTG 2308: Instrumentation Drafting (3:2-4)

Principles of instrumentation applicable to industrial applications; fundamentals of measurement and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout and drafting practices. Lab fee \$24. Prerequisite: DFTG 2319 or instructor approval.

DFTG 2312: Technical Illustration and Presentation (3:2-4)

Pictorial drawing including isometrics, obliques, perspectives, charts, and graphs. Emphasis on rendering and using different media. Lab fee \$24.

DFTG 2319 Intermediate Computer-Aided Drafting (3:2-4)

A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, interfacing 2d and/or 3d environments and extracting data. Lab fee \$24. Prerequisite: DFTG 1309 and DFTG 1305, or instructor approval.

DFTG 2321: Topographical Drafting (3:2-4)

Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses. Lab fee \$24.

DFTG 2328: Architectural Drafting – Commercial (3:2-4)

Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Lab fee \$24. Prerequisite: DFTG 2319 or instructor approval.

DFTG 2330: Civil Drafting (3:2-4)

An in-depth study of drafting methods and principles used in civil engineering. Lab fee \$24. Prerequisite: DFTG 2319 or instructor approval.

DFTG 2340: Solid Modeling/Design (3:2-4)

A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. Lab fee \$24. Prerequisite: DFTG 2319 or instructor approval.

DFTG 2350: Geometric Dimensioning & Tolerancing (3:2-4)

Geometric dimensioning and tolerancing, according to standards, application of various geometric dimensions and tolerances to production drawings. Lab fee \$24. Prerequisite: DFTG 2302 or instructor approval.

DFTG 2380: Cooperative Education-Drafting and Design Technology/Technician, General (3:1-20)

Career related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

DFTG 2438: Final Project-Advanced Drafting (4:2-4)

A drafting course in which students participate in a comprehensive project from conception to conclusion. Lab fee \$24.

COMPUTER INFORMATION SYSTEMS

ARTC 1313: Digital Publishing I (3:2-2)

The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. This course is offered in the fall semester. Lab fee \$24.

ARTC 1325: Introduction to Computer Graphics (3:2-2)

A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Lab fee \$24.

ARTV 1351: Digital Video (3:2-2)

Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation. Student must provide video camera. Lab fee \$24.

CPMT 1303: Introduction to Computer Technology (3:2-2)

A fundamental computer course that provides explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities. Lab fee \$24.

CPMT 1311: Introduction to Computer Maintenance (3:2-4)

Introduction to the installation, configuration, and maintenance of a microcomputer system. Lab fee \$24.

CPMT 1345: Computer Systems Maintenance (3:2-4)

Functions of the components within a computer system. Development of skills in the use of test equipment and maintenance aids. Lab fee \$24. Prerequisite: CPMT 1311.

CPMT 1404: Microcomputer System Software (4:3-2)

Skill development in the installation, configuration, maintenance and troubleshooting of system software in microcomputers. Topics may include operating systems, utility software and other software affecting the basic operation of a microcomputer system. Lab fee \$24. Prerequisite: ITSC 1305.

CPMT 2402: Home Technology Integration (4:3-2)

Integration and maintenance of various home technology subsystems. Includes home automation, security and surveillance, home networks, video and audio networks, and structured wiring. Lab fee \$24.

CPMT 2445: Computer System Troubleshooting: (4:3-2)

Principles and practices involved in computer system troubleshooting techniques and repair procedures including advanced diagnostic test programs and the use of specialized test equipment. Lab fee \$24.

CPMT 2449: Advanced Computer Networking Technology (4:3-2)

Network technology emphasizing network operating systems, network connectivity, hardware, and software. Includes implementation, troubleshooting, and maintenance of LAN and/or WAN network environments and security. This course is offered in the fall semester. Lab fee \$24.

IMED 1316: Web Design I (3:2-2)

Instruction in web page design and related graphic design issues including mark-up languages, web sites, and browsers. Lab fee \$24.

IMED 2309: Internet Commerce (3:3-1)

An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include dynamic data, integration, and creating web sites in order to collect information, performing on-line transactions. This course is offered in the spring semester. Lab fee \$24. Prerequisite: IMED 2315.

IMED 2311: Portfolio Development (3:2-2)

Preparation and enhancement of portfolio to meet professional standards, development of presentation skills, and improvement of job-seeking techniques. This course is offered in the spring semester. Lab fee \$24.

IMED 2315: Web Design II (3:2-2)

A study of mark-up language advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites according to accessibility standards, cultural appearance, and legal issues. Lab fee \$24. Prerequisite: IMED 1316.

IMED 2359: Interactive Web Elements (3:2-2)

Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming. Lab Fee \$24.

ITNW 1325: Fundamentals of Networking Technologies (3:3-1)

Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Lab fee \$24.

ITNW 1454: Implementing and Supporting Servers (4:3-2)

Implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment. Lab fee \$24.

ITNW 1458: Network + (4:3-2)

Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTIA) Network + certification exam. This course is offered in the spring semester. Lab fee \$24

ITNW 2405: Network Administration (4:3-2)

Topics include network components, user accounts, and groups, network file systems, file system security, and network printing. Lab fee \$24.

ITNW 2413: Networking Hardware (4:3-2)

Maintain network hardware devices. Topics include network cables, servers, and workstations; network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies; and other networking hardware devices. Lab fee \$24.

ITNW 2415: Wide Area Networks (4:3-2)

Technologies and protocols used to move data, voice, and video across long distances. Includes basic concepts of how information is transported over a wide area network (WAN) from the physical layer to the application layer. Lab fee \$24.

ITSC 1301: Introduction to Computers: (3:3-1)

Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Lab fee \$24.

ITSC 1305: Introduction to PC Operating Systems: (3:2-2)

A study of personal computer operating systems. Topics include installation and configuration, file management, memory and storage management, control of peripheral devices, and use of utilities. Lab fee \$24.

ITSC 1307: UNIX Operating System I: (3:2-2)

A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Lab fee \$24.

ITSC 1309: Integrated Software Applications I: (3:2-2)

Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Lab fee \$24.

ITSC 1315: Project Management Software: (3:2-2)

Use of project management software for developing a project plan including timelines, milestones, scheduling, life cycle phases, management frameworks, skills, processes, and tools. Lab fee \$24.

ITSC 2486: Internship - Computer and Information Sciences, General: (4:0-20)

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. This may be a paid or unpaid experience. Prerequisite: 24 credit hours of CIS classes. To be taken last semester of degree plan or with prior approval of instructor. This course is offered in the fall and spring semester.

ITSE 1294: Special Topics in Computer Science: Information Technology in Health Care Occupations: (2:1-2)

The student will describe the purpose and value of information technology in a health care setting; demonstrate ability to successfully complete computerized tasks using software available; describe various uses of computers and information technology in health care. (This course is for students whose major is in health occupations.) Lab fee \$24.

ITSE 1311: Beginning Web Programming: (3:2-2)

Skill development in web page programming including mark-up and scripting languages. May include use of XHTML, CGI, JavaScript, and/or ASP. Introduction to structure and object oriented programming design. Lab fee \$24.

ITSE 1329: Programming Logic and Design: (3:3-0)

A disciplined approach to problem-solving with structured techniques and representation of algorithms using appropriate design tools. Discussion of methods for testing, evaluation, and documentation.

ITSE 1331: Introduction to Visual BASIC Programming: (3:2-2)

Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Lab fee \$24.

ITSE 1350: System Analysis and Design: (3:3-1)

Comprehensive introduction to the planning, design, and construction of computer information systems using the system development life cycle and other appropriate design tools. Lab fee \$24.

ITSE 1356: Extensible Markup Language (XML) (3:2-2)

Introduction of skills and practices related to the Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-informed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Lab fee \$24

ITSE 1402: Computer Programming (4:3-2)

Introduction to computer programming with emphasis on the fundamentals of design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. This course is offered in the spring semester. Lab fee \$24.

ITSE 1407: Introduction to C++ Programming: (4:3-2)

Introduction to computer programming using C++. Emphasis on the fundamentals of object oriented design with development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. This course is offered in the spring semester. Lab fee \$24.

ITSE 2417: JAVA Programming: (4:3-2)

Introduction to object-oriented JAVA programming. Emphasizes the fundamental syntax and semantics of JAVA for applications and web applets. This course is offered in the summer semester. Lab fee \$24.

ITSE 2431: Advanced C++ Programming: (4:3-2)

Further application of C++ programming techniques including subjects such as file access, abstract data structures, class inheritance, and other advanced techniques. This course is offered in the fall semester and should be taken in the student's second year. Lab fee \$24.

ITSE 2449: Advanced Visual BASIC Programming: (4:3-2)

Further applications of programming techniques using Visual BASIC. Includes file access methods, data structures and modular programming, program testing and documentation. Lab fee \$24.

ITSE 2457: Advanced Object-Oriented Programming: (4:3-2)

Application of advanced object-oriented programming techniques such as abstract data structures, class inheritance, polymorphism, and exception handling. This course is offered in the spring semester and should be taken in the student's second year. Lab fee \$24.

ITSW 1301: Introduction to Word Processing (3:2-2)

An overview of the production of documents, tables, and graphics. Lab fee \$24.

ITSW 1304: Introduction to Spreadsheets: (3:2-2)

Instruction in the concepts, procedures, and application of electronic spreadsheets. This course is offered in the spring semester. Lab fee \$24.

ITSW 1307: Introduction to Database: (3:2-2)

Introduction to database theory and the practical applications of a database. This course is offered in the fall semester. Lab fee \$24.

ITSW 1310: Introduction to Presentation Graphics Software: (3:2-2)

Instruction in the utilization of presentation software to produce multimedia presentations. Graphics, text, sound, animation and/or video may be used in presentation development. Lab fee \$24.

ITSW 2337: Advanced Database: (3:2-2)

Mastery of database design and functionality. This course is offered in the fall semester. Lab fee \$24.

ITSY 1342: Information Technology Security (3:2-2)

Instruction in security for network hardware, software, and data, including physical security, backup procedures, relevant tools, encryption, and protection from viruses. Lab fee \$24.

ITSY 2301: Firewalls and Network Security (3:2-2)

Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Lab fee \$24.

ITSY 2400: Operating System Security (4:3-2)

Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Lab fee \$24.

ITSY 2441: Security Management Practices (4:3-2)

In-depth coverage of security management practices, including asset evaluation and risk management; cyber law and ethics issues; policies and procedures; business recovery and business continuity planning; network security design; and developing and maintaining a security plan. Lab fee \$24.

COMPUTER SCIENCE

COSC 1301: Microcomputer Applications (3:2-2)

Overview of computer information systems. Introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied. Lab fee \$24.

COSC 1309: Logic Design (3:3-0)

A discipline approach to problem solving with structured techniques and representation of algorithms using pseudo code and graphical tools. Discussion of methods for testing, evaluation and documentation is included.

COSC 1315: Fundamentals of Programming (3:2-2)

Introduction to computer programming. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes coverage of language syntax, data and file structures, input/output devices, and disks/files. Lab fee \$24.

COSC 1436: Programming Fundamentals I (4:3-2)

Introduces the fundamental concepts of structured programming. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. Lab fee \$24.

COSC 1437: Programming Fundamentals II (4:3-2)

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering. Prerequisite: COSC 1436. Lab fee \$24.

COSC 2430: Advanced Structured Languages (4:3-2)

Further applications of programming techniques. Topics may include file access methods, data structures and modular programming, program testing and documentation, and other topics not normally covered in an introductory computer-programming course. JAVA is the language used. Lab fee \$24.

COSC 2436: Programming Fundamentals III (4:3-2)

Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, has tables, trees, and graphs), and algorithmic analysis. Prerequisite: COSC 1437. Lab fee \$24.

CRIMINAL JUSTICE

CJCR 1307: Correctional Systems and Practices (3:3-0)

Corrections in the criminal justice systems, organization of correctional systems, correctional role, institutional operations, alternatives to institutionalization, treatment and rehabilitation, current and future issues.

CJCR 2324: Community Resources in Corrections (3:3-0)

An introductory study of the role of the community in corrections, community programs for adults and juveniles, administration of community programs, legal issues, future trends in community treatment.

CJLE 2247: Tactical Skills for Police (2:2-0)

Development of proficiency with a range of impact weapons and/or chemical agents and defensive techniques necessary to control violent person.

CJSA 1308: Criminalistics I (3:3-0)

Introduction to the field of criminalistics. Topics include the application of scientific and technical methods in the investigation of crime including location, identification, and handling of evidence for scientific analysis.

CJSA 1312: Crime in America (3:3-0)

American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, prevention of crime.

CJSA 1313: Court Systems and Practices (3:3-0)

The judiciary in the criminal justice system, structure of the American court system, prosecution; right to counsel, pre-trial release, grand juries, adjudication process, types and rules of evidence, sentencing.

CJSA 1317: Juvenile Justice System (3:3:0)

A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency.

CJSA 1322: Introduction to Criminal Justice (3:3-0)

History and philosophy of criminal justice and ethical considerations, crime defined, its nature and impact, overview of criminal justice system, law enforcement, court system, prosecution and defense, trial process, corrections.

CJSA 1325: Criminology (3:3-0)

Current theories and empirical research pertaining to crime and criminal behavior and its causes, methods of prevention, systems of punishment, and rehabilitation.

CJSA 1327: Fundamentals of Criminal Law (3:3-0)

A study of the nature of criminal law, philosophical and historical development, major definitions and concepts, classification of crime, elements of crimes and penalties using Texas statutes as illustrations, criminal responsibility.

CJSA 1342: Criminal Investigation (3:3-0)

Investigative theory, collection and preservation of evidence, sources of information, interview and interrogation, uses of forensic sciences, case and trial preparation.

CJSA 1359: Police System and Practices (3:3-0)

The police profession, organization of law enforcement systems, the police role, police discretion, ethics, police-community interaction, current and future issues.

CJSA 1382: Cooperative Education-Criminal Justice Studies (3:1-20)

Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

CJSA 2300: Legal Aspects of Law Enforcement (3:3-0)

Police authority, responsibilities, constitutional restraints, laws of arrest, search and seizure, police liability.

CRIJ 1301: Introduction to Criminal Justice (3:3-0)

History, philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures.

CRIJ 1306: Court Systems and Practices (3:3-0)

Study of the judiciary in the American criminal justice system and the adjudication processes and procedures.

CRIJ 1307: Crime in America (3:3-0)

American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime.

CRIJ 1310: Fundamentals of Criminal Law (3:3-0)

Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility.

CRIJ 1313: Juvenile Justice System (3:3-0)

A study of the juvenile justice process to include specialized juvenile law, role of juvenile law, role of juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency.

CRIJ 2301: Community Resources in Corrections (3:3-0)

An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment.

CRIJ 2313: Correctional Systems and Practices (3:3-0)

Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues.

CRIJ 2314: Criminal Investigation (3:3-0)

Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation.

CRIJ 2323: Legal Aspects of Law Enforcement (3:3-0)

Police authority; responsibilities; constitutional restraints; laws of arrest, search, and seizure; police liability.

CRIJ 2328: Police Systems and Practices (3:3-0)

The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues.

HMSY 1337: Introduction to Homeland Security (3:3-0)

Overview of homeland security. Evaluation of the progression of homeland security issues throughout Texas and the United States. An examination of the roles undertaken and methods used by governmental agencies and individuals to respond to those issues.

SLPS 2333: Private Investigation (3:3-0)

The private investigation process. Includes techniques and procedures involved and legal issues applicable to private investigations.

SLPS 2388: Internship – Security and Loss Prevention Services (3:0-17)

A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

DANCE

DANC 1241: Ballet I (2:1-2)

Instruction and participation in ballet technique.

DANC 1247: Jazz I (2:1-2)

Development of basic principles and theories involved in composition. Emphasis is placed on movement principles, group and structured forms of jazz dance style.

DENTAL HYGIENE

DHYG 1123: Dental Hygiene Practice (1:1-0)

Examination of the dental hygienist's role in practice settings, including dental office management, employment considerations, resume preparation, and job interviewing. Emphasis on the laws governing the practice of dentistry and dental hygiene and the ethical standards established by the dental hygiene profession. Prerequisites: DHYG 2231, DHYG 2361, DHYG 1315, SOCI 1301, ENGL 2311. Corequisites: DHYG 2262, DHYG 1291, and a Fine Arts/Humanities Elective. A grade of "C" or higher is required in all prerequisite and corequisite courses. R, W, M.

DHYG 1207: General and Dental Nutrition (2:2-0)

A study of general nutrition and nutritional biochemistry with emphasis on the effects of nutrition on dental health. Analysis of diet and application of counseling strategies to assist the patient in attaining and maintaining optimum oral health are stressed. Prerequisites: DHYG 1301, DHYG 1431, DHYG 1304, ENGL 1301. Corequisites: DHYG 2201, DHYG 1211, DHYG 1260, DHYG 1239, PSYC 2301. A grade of "C" or higher is required in all prerequisite and corequisite courses. R, W, M.

DHYG 1211: Periodontology (2:2-1)

Study of normal and diseased periodontium to include the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics in a contemporary private practice setting. Prerequisites: DHYG 1301, DHYG 1431, DHYG 1304, ENGL 1301. Corequisites: DHYG 2201, DHYG 1211, DHYG 1260, DHYG 1207, DHYG 1239, PSYC 2301. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$20 lab fee. R, W, M.

DHYG 1327: Preventive Dental Hygiene Care (3:3-1)

Study of the dental hygienist in the dental health care system and the basic concepts of disease prevention and health promotion. Communication and behavior modification skills are emphasized to facilitate the role of the dental hygienist as an educator. Prerequisites: Formal admission to the program; BIOL 2421, CHEM 1305, CHEM 1105, BIOL 2401, BIOL 2402. A grade of "C" or higher is required in all prerequisite courses. \$24 lab fee. R,W,M.

DHYG 1235: Pharmacology for the Dental Hygienist (2:2-0)

A study of the classes of drugs and their uses, actions, interactions, side effects, contraindications, and oral manifestations with emphasis on dental applications. Prerequisites: DHYG 2201, DHYG 1211, DHYG 1260, DHYG 1207, DHYG 1239,

PSYC 2301. Corequisite: DHYG 1319. A grade of "C" or higher is required in all prerequisite and corequisite courses. R, W, M.

DHYG 1239: General and Oral Pathology (2:2-0)

General study of disturbances in human body development, diseases of the body, and disease prevention measures. Emphasis on the oral cavity and associated structures. Prerequisites: DHYG 1301, DHYG 1431, DHYG 1304. Corequisites: DHYG 2201, DHYG 1211, DHYG 1260, DHYG 1207, PSYC 2301. A grade of "C" or higher is required in all prerequisite and corequisite courses. R, W, M.

DHYG 1260: Clinical Dental Hygienist I (2:0-12)

Health-related work-based learning experiences that enable the learner to apply specialized occupational theories, skills, and concepts. This instruction provides detailed education, training and work-based experience and direct patient/client care, generally at a clinical site. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, and evaluation are the responsibility of the College faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DHYG 1301, DHYG 1431, DHYG 1304, ENGL 1301. Corequisites: DHYG 2201, DHYG 1211, DHYG 1207, DHYG 1239, PSYC 2301. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 clinical fee. R, W, M.

DHYG 1291: Special Topics in Dental Hygiene (2:1-4)

An in-depth study of selected topics that addresses recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the dental health care delivery system and to the professional development of the student. This instruction is designed to serve as a capstone experience offered in the spring semester of the sophomore year. The topic is announced prior to registration. Prerequisites: successful completion of all prior required dental hygiene courses, SOCI 1301, ENGL 2311. Corequisites: DHYG 2262, DHYG 1123, Fine Arts/Humanities elective. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$24 lab fee. R, W, M.

DHYG 1301: Orofacial Anatomy, Histology and Embryology (3:2-4)

A study of histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Prerequisite: DHYG 1327. Corequisites: DHYG 1304, DHYG 1431, ENGL 1301. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$20 lab fee. R, W, M.

DHYG 1304: Dental Radiography (3:2-4)

A study of radiation physics, hygiene, and safety theories. Emphasis on the fundamentals of oral radiographic techniques and interpretation of radiographs. Includes exposure of intra-oral and extra-oral radiographs, quality assurance, radiographic interpretation, patient selection criteria, and other ancillary radiographic techniques. Prerequisite: DHYG 1327. Corequisites: DHYG 1301, DHYG 1431, ENGL 1301. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 radiology film fee; R, W, M.

DHYG 1315: Community Dentistry (3:3-1)

Study of the principles and concepts of community public health and dental health education with an emphasis on community assessment, educational planning, implementation, and evaluation. Laboratory emphasizes methods and materials used in teaching dental health education in various community settings. Prerequisites: DHYG 1319, DHYG 1235. Corequisites: DHYG 2231, DHYG 2361, SOCI 1301, ENGL 2311. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$24 lab fee. R, W, M.

DHYG 1319: Dental Materials (3:2-4)

Study of dental materials including the physical and chemical properties and application of the various materials used in dentistry. Student experiences include manipulation of dental materials in the lab setting. Prerequisites: DHYG 2201, DHYG 1211, DHYG 1260, DHYG 1207, DHYG 1239, PSYC 2301. Corequisite: DHYG 1235. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 dental materials fee. R, W, M.

DHYG 1431: Pre-clinical Dental Hygiene (4:2-6)

Foundational knowledge and skills of dental hygiene theory and practice. Emphasis on principles, procedures, and professionalism for performing comprehensive oral prophylaxis. Prerequisite: DHYG 1327. Corequisites: DHYG 1301, DHYG 1304, ENGL 1301. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 clinical fee; \$20 liability insurance fee. R, W, M.

DHYG 2201: Contemporary Dental Hygiene Care I (2:2-0)

A continuation of the study of dental hygiene theory and practice to include introduction to dental hygiene care for the medically or dentally compromised patient. Emphasizes supplemental instrumentation techniques. Prerequisites: DHYG 1301, DHYG 1431, DHYG 1304, ENGL 1301. Corequisites: DHYG 1211, DHYG 1260, DHYG 1207, DHYG 1239, PSYC 2301. A grade of "C" or higher is required in all prerequisite and corequisite courses R, W, M.

DHYG 2231: Contemporary Dental Hygiene Care II (2:2-0)

A continuation of dental hygiene care for the medically or dentally compromised patient with emphasis on advanced instrumentation techniques. Prerequisites: DHYG 1319, DHYG 1235. Corequisites: DHYG 2361, DHYG 1315, SOCI 1301, ENGL 2311. A grade of "C" or higher is required in all prerequisite and corequisite courses. R, W, M.

DHYG 2262: Clinical Dental Hygienist III (2:0-12)

Health-related work-based learning experiences that enable the learner to apply specialized occupational theories, skills, and concepts. This instruction provides detailed education, training and work-based experience and direct patient/client care. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, and evaluation are the responsibility of the College faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DHYG 2231, DHYG 2361, DHYG 1315, SOCI 1301, ENGL 2311. Corequisites: DHYG 1123, DHYG 1291, and a Fine Arts/Humanities Elective. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 clinical fee, \$20 liability insurance fee. R, W, M.

DHYG 2361: Clinical Dental Hygienist II (3:0-16)

Health-related work-based learning experiences that enable the learner to apply specialized occupational theories, skills, and concepts. This instruction provides detailed education, training and work-based experience and direct patient/client care. Specific detailed learning objectives are developed for each course by the faculty. On-site clinical instruction, supervision, and evaluation are the responsibility of the College faculty. Clinical experiences are unpaid external learning experiences. Course may be repeated if topics and learning outcomes vary. Prerequisites: DHYG 1319, DHYG 1235. Corequisites: DHYG 2231, DHYG 1315, SOCI 1301, ENGL 2311. A grade of "C" or higher is required in all prerequisite and corequisite courses. \$30 clinical fee, \$20 liability insurance fee. R, W, M.

DIAGNOSTIC MEDICAL SONOGRAPHY**DMSO 1302 Basic Ultrasound Physics (3:3-0-0)**

Basic acoustical physics and acoustical waves in human tissue. Emphasis on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission, and resolution of sound beams. Design of the transducer, ultrasound equipment, and production of the sound beam, controls on the ultrasound equipment to demonstrate adequate sonographic images, fundamentals of pulse-echo ultrasound systems.

Prerequisites: A grade of 2.0 or higher in each of the prerequisites and accepted into the DMS program.

DMSO 1110 Introduction to Sonography (1:1-0-0)

An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and history of the profession.

Prerequisites: A grade of 2.0 or higher in each of the prerequisites and accepted into the DMS program.

DSVT 1103 Introduction to Vascular Technology (1:1-0-0)

Introduction to basic non-invasive vascular theories. Emphasizes image orientation, transducer handling, and identification of anatomic structures. Prerequisites: A grade of 2.0 or higher in each of the prerequisites and accepted into the DMS program.

DMSO 1342 Intermediate Ultrasound Physics (3:3-0-0)

Continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 1103, DMSO 1110, DMSO 1302

DMSO 1441 Abdominopelvic Sonography (4:3-3-0)

Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 1103, DMSO 1110, DMSO 1302

DMSO 2441 Sonography of Abdominopelvic Pathology (4:3-3-0)

Pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Emphasizes endocavitary sonographic anatomy and procedures including pregnancy. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 1110, DMSO 1441, DMSO 1302, DSVT 1103, and DMSO 1342

DMSO 2351 Doppler Physics (3:3-0-0)

Doppler and hemodynamic principles relating to arterial and venous imaging and testing. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 1110, DMSO 1441, DMSO 1302, DSVT 1103, and DMSO 1342

DMSO 1361 Clinical I – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (3:0-16-0)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

Prerequisites: A grade of 2.0 or higher in each of the following DMSO 1110, DMSO 1441, DMSO 1302, DSVT 1103, and DMSO 1342

DMSO 2405 Sonography of Obstetrics and Gynecology (4:3-4-0)

Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2441, DMSO 1361, DMSO 2351

DMSO 2363 Clinical II – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (3:0-0-24)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2441, DMSO 1361, and DMSO 2351

DMSO 2442 Sonography of High Risk Obstetrics (4:3-3-0)

Maternal disease and fetal abnormalities. Includes scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2405, and DMSO 2363

DMSO 2354 Neurosonology (3:3-0-0)

Normal and pathological neonatal head structures. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2363, and DMSO 2405

DMSO 2366 Practicum I – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician (3:0-0-24)

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2405, AND DMSO 2363

DMSO 2245 Advanced Sonography Practices (2:2-0-0)

Exploration of advanced sonographic procedures and emerging ultrasound applications. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2405, DMSO 2354, and DMSO 1366

DMSO 2353 Sonography of Superficial Structures (3:2-3-0)

Detailed study of normal and pathological superficial structures as related to scanning techniques, patient history and laboratory data, transducer selection, and scanning protocols. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2442, DMSO 2354, and DMSO 1366

DMSO 2230 Advanced Ultrasound and Review (2:2-0-0)

Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. Review of basic and intermediate ultrasound principles.

Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2442, DMSO 2354, and DMSO 1366

DMSO 2367 Practicum II – Diagnostic Medical Sonography/Sonographer and Ultrasound Technician(3:0-0-24)

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisites: A grade of 2.0 or higher in each of the following DMSO 2442, DMSO 2354, and DMSO 1366

DRAMA/THEATRE

DRAM 1120: Theatre Practicum I (1:0-3)

This is a laboratory course for extensive participation in theatre activities. It consists of work in drama for public presentation, backstage work, use of makeup, properties, lighting, and other facets of technical theatre. An average of three hours each week or a minimum of forty-eight hours of participation during the semester is required. This course may be repeated for credit. Maximum of 4 credits.

DRAM 1121: Theatre Practicum II (1:0-3)

This is a laboratory course for extensive participation in theatre activities. It consists of work in drama for public presentation, backstage work, use of makeup, properties, lighting, and other facets of technical theatre. An average of three hours each week or a minimum of forty-eight hours of participation during the semester is required. This course may be repeated for credit. Prerequisite: DRAM 1120 or permission of the instructor. Maximum of 4 credits.

DRAM 1310: Introduction to Theatre (3:3-0)

A general survey of all phases of theatre with emphasis on the various types and styles of plays, elementary theory, introduction to acting and directing, and introduction to technical production. Designed as a theatre appreciation course for the non-drama major and an introduction to theatre activities for the drama major. R, W

DRAM 1330: Stagecraft I (3:3-2)

An introduction to the fundamentals of technical theatre. Basic techniques of play production including scenery design and construction, make-up, costuming, properties, and lighting.

DRAM 2331: Stagecraft II (3:3-2)

A continuation of DRAM 1330, emphasizing the study and application of visual aesthetics of design.

Prerequisite: DRAM 1330 or permission of the instructor.

DRAM 1341: Make-Up (3:3-2)

The theory and practice of make-up for the stage. Principles of designing and applying make-up for characters in a play. Intensive practical application.

DRAM 1351: Acting I (3:3-0)

A study of characterization and the creation of roles for the stage including study of voice production, study of movement, and practice in scenes from plays. Role playing through improvisations is used as a foundation for the course. R.

DRAM 1352: Acting II (3:3-2)

An extensive study of practical experience in creating characterization. Emphasis on development of vocal and physical skill in acting through performances in solo acting, duet acting, group scenes from plays, and participation in productions staged by the College. Prerequisite: DRAM 1351 or consent of instructor. R, W

DRAM 2336: Voice for the Theatre (3:3-0)

Physiology and mechanics of effective voice production with practice in articulation, pronunciation, and enunciation. Introduction to the International Phonetic Alphabet. This is the same course as SPCH 1342 but can be taken for Theatre credit. Credit will not be granted for both DRAM 2336 and SPCH 1342. R, W

DRAM 2366: Development of the Motion Picture I (3:3-2)

Analysis of the visual and aural aspects of selected motion pictures. Important classic films will be viewed to illustrate the historical growth and sociological impact of film as an art. R, W

ECONOMICS

ECON 2301: Principles of Macroeconomics (3:3-0)

This course surveys the American economic system emphasizing the impact of choices made by consumers and firms on the total level of economic activity. Introduces the fundamental economic principles underlying the economic problem; special emphasis on aggregate economic analysis; determinants of policy; inflation and unemployment; economic growth; macroeconomic equilibrium, fiscal policy, monetary policy, government budget deficits and public debt, international trade, money and banking. Specific topics are examined using basic methods of economics.

ECON 2302: Principles of Microeconomics (3:3-0)

This course surveys the American economic system emphasizing choices made by consumers and firms and the impact that those choices have on specific markets in relation to the overall economy. Specific topics include: the economizing problem,

production possibilities, international trade, demand and supply, elasticities, analysis of consumer choice, production and cost, wages and employment, interest rates and the markets for capital and natural resources, perfect competition, the monopoly model, monopolistic competition and oligopoly, public finance and public choice, and selected microeconomic applications. Specific topics are examined using basic methods of economics.

EDUCATION

EDUC 1301—Introduction to the Teaching Profession (3:2:2)

An enriched integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields; provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations; provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms; and includes a 30 contact hour lab component, 16 hours of which must be in P-12 schools.

EDUC 2301—Introduction to Special Populations (3:2:2)

An enriched integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspective of language, gender, socioeconomic status, ethnic, and academic diversity and equity with an emphasis on factors that facilitate learning; provides students with opportunities to participate in early field observations of P-12 special populations; includes a 30 contact hour lab component, 16 hours of which must be with special populations in P-12 schools. Prerequisite: EDUC 1301. This course usually offered in the spring semester.

EDUCATIONAL PERSONNEL

EDTC 1301: Educational Systems (3:3-0)

A study of the role and responsibilities of educational personnel with emphasis on development of professionalism and effective communication strategies with adults. Topics include the various codes of ethics governing the educational field, the issue of confidentiality, learners' rights and responsibilities, and challenges facing schools.

EDTC 1307: Introduction to Teaching Reading (3: 3-0)

General principles of reading instruction. Topics include emergent literacy, reading readiness, reading instruction, literacy based environments, and a review of varied materials and techniques for teaching reading.

EDTC 1311: Instructional Practices and Effective Learning Environment (3:3-0)

General principles for selecting developmentally appropriate strategies in core curriculum areas and planning the classroom environment. Topics address methods for supporting instructional planning and implementation of educational goals. Exploration of teamwork skills and methods for providing instructional accommodations and modifications.

EDTC 1313: Educational Software and Technology (3:3-0)

Introduction to the use of educational software, instructional applications, and technology in the educational setting. Evaluate the use of technology for guided practice and self-paced student remediation.

EDTC 2305: Reading Problems (3:3-0)

In-depth coverage of reading difficulties. Emphasis on the theories, strategies, recognition, and remediation of reading problems. Topics include assessment, direct instruction, and motivational/interactive literacy activities.

EDTC 2317: Guiding Student Behavior (3:3-0)

A study of developmentally appropriate direct and indirect guidance techniques for use in various school environments. Topics include identification of causes of inappropriate behavior, establishing and managing routines, the environment's role in promoting positive behavior, promoting self-esteem negotiation/conflict resolution strategies, and enhancing positive self-direction. Emphasis in implementation of a behavior management plan.

EDTC 2364: Practicum Teacher Assistant/Aide (3:1-21)

Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

EMERGENCY MEDICAL SERVICES PROFESSIONS

EMSP 1147: Pediatric Advanced Life Support (1:1-0-0)

A course in the management of the pediatric patient experiencing difficulties in medical and/or trauma related emergencies. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2143, 2135, 2338, 1149, 2460.

EMSP 1149: Pre-Hospital Trauma Life Support (1:1-0-0)

Intense skill development in emergency field management, systematic rapid assessment, resuscitation, packaging, and transportation of patients. Includes experience necessary to meet initial certification requirements. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2143, 2135, 1147, 2338, 2460.

EMSP 1160: Clinical-Emergency Medical Technology/Technician (1:0-0-5)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Corequisite: EMSP 1501. \$25 Clinical fee. Approximately \$71 liability insurance fee.

EMSP 1162: Clinical-Emergency Medical Technology/Technician (1:0-0-4)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Formal acceptance into EMSP Program,

EMSP 1501, 1160. Prerequisite or Corequisite: BIOL 2401 or 2404. Corequisites: EMSP 2348, 1438, 1356, 1162. \$50 Clinical fee. Approximately \$71 liability insurance fee if not paid previously during current academic year.

EMSP 1263: Clinical-Emergency Medical Technology/Technician (2:0-0-6)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: EMSP 2438, 1356, 1438, 1162. Corequisite: EMSP 1355. \$50 Clinical fee.

EMSP 1355: Trauma Management (3:2-2-0)

A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Prerequisites: EMSP 2348, 1356, 1438, 1162. Corequisite: EMSP 1263. \$40 Micro Simulation fee.

EMSP 1356: Patient Assessment and Airway Management (3:2-2-0)

A detailed study of the knowledge and skills required to perform patient assessment and airway management. Prerequisites: Formal acceptance into EMSP Program, EMSP 1501, 1160. Prerequisite or corequisite: BIOL 2401 or 2404. Corequisites: EMSP 2348, 1438, 1162. \$40 Micro Simulation fee.

EMSP 1438: Introduction to Advanced Practice (4:3-2-0)

An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Prerequisites: Formal acceptance into EMSP Program, EMSP 1501, 1160. Prerequisite or corequisite: BIOL 2401 or 2404. Corequisites: EMSP 1162, 1356, 2348.

EMSP 1501: Emergency Medical Technician-Basic (5:3-8-0)

Introduction to the level of Emergency Medical Technician (EMT)-Basic. Includes all skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized services. Corequisite: EMSP 1160.

EMSP 2135: Advanced Cardiac Life Support (1:1-0-0)

Skill development for professional personnel practicing in critical care units, emergency departments, and paramedic ambulances. Establishes a system of protocols for management of the patient experiencing cardiac difficulties. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2143, 2338, 1147, 1149, 2460.

EMSP 2143: Assessment Based Management (1:0-3-0)

Comprehensive, assessment-based patient care management. Includes specific care when dealing with pediatric, adult, geriatric and special needs patients. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2338, 2135, 1147, 1149, 2460. \$40 Micro Simulation fee.

EMSP 2263: Clinical – Emergency Medical EMT Paramedic (2:0-0-6)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: Current State or National Certification as a paramedic. Corequisites: EMSP 2458. Approximately \$71 liability insurance fee if not paid previously during current academic year.

EMSP 2260: Clinical-Emergency Medical EMT Paramedic (2:0-0-8)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: EMSP 1355, 1263, 2544. Corequisites: EMSP 2430, 2434. \$50 Clinical fee. Approximately \$71 liability insurance fee if not paid previously during current academic year.

EMSP 2338: EMS Operations (3:2-2-0)

A detailed study of the knowledge and skills to safely manage the scene of an emergency. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2143, 2135, 1147, 1149, 2460.

EMSP 2348: Emergency Pharmacology (3:3-1-0)

A comprehensive course covering all aspects of the utilization of medications in treating emergency situations. Course is designed to complement Cardiology, Special Populations, and Medical Emergencies courses. Prerequisites: Formal acceptance into EMSP Program; EMSP 1501, 1160; Prerequisite or corequisite: BIOL 2401 or 2404. Corequisites: EMSP 1438, 1356, 1162.

EMSP 2430: Special Populations (4:3-2-0)

A detailed study of the knowledge and skills necessary to reach competence in the assessment and management of ill or injured patients in nontraditional populations. Prerequisites: EMSP 1355, 1263, 2544. Corequisites: EMSP 2434, 2260.

EMSP 2434: Medical Emergencies (4:4-3-0)

A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Prerequisites: EMSP 1355, 1263, 2544. Corequisites: EMSP 2430, 2260. \$40 Micro Simulation fee.

EMSP 2458: Critical Care Paramedic (4:3-4)

Prepares healthcare personnel to function as members of a critical care transport team. Prerequisites: Current State or National Certification as a paramedic. Corequisites: EMSP 2263

EMSP 2460: Clinical-Emergency Medical EMT Paramedic (4:0-0-14)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: EMSP 2434, 2430, 2260. Corequisites: EMSP 2143, 2135, 1147, 1149, 2338. \$50 Clinical fee. Approximately \$71 liability insurance fee if not paid previously during current academic year.

EMSP 2544: Cardiology (5:4-4-0)

Assessment and management of patients with cardiac emergencies. Includes basic dysrhythmia interpretation, recognition of 12-Lead EKGs for field diagnosis, and electrical and pharmacologic interventions. Prerequisites: EMSP 2348, 1356, 1438, 1162.

ENGINEERING

ENGR 1201: Introduction to Engineering (2:2-0)

An introduction to engineering and its branches of specialization by examining current practices of the profession. Covers technical areas including computational methods and presentation of problem solutions with emphasis on the computer as an engineering tool. Introduction to MATLAB structured programming. Required for all engineering majors. Recommended for all mathematics and physical science majors. R, W, M

ENGR 1304: Engineering Graphics I (3:2-3)

Study of the basic skills necessary for CAD drawings, including solid modeling. Prerequisite Admission credit in geometry and trigonometry, or credit or enrollment in MATH 1316 or MATH 1348 or MATH 2312, or permission of the instructor. \$24 lab fee. R, W, M

ENGR 2301: Engineering Mechanics I - Statics (3:3-0)

A comprehensive study of the engineering methods and applications of equilibrium, including free-body diagrams, force systems, trusses, beams, cables, friction, distributed loads, centroids, and moment of inertia. Vector algebra and calculus are used. Offered when sufficient demand exists. Prerequisites: PHYS 2425 or permission of the instructor and credit or registration in MATH 2414. R, W, M

ENGR 2302: Engineering Mechanics II - Dynamics (3:3-0)

A study of kinematics and dynamics, including work-energy and impulse-momentum methods, applied to engineering problems involving particles and rigid bodies. Vector algebra and calculus are used. Offered when sufficient demand exists. Prerequisites: ENGR 2301 and MATH 2414. R, W, M

ENGLISH

ENGL 0301: Basic Writing I (3:3-0)

This course stresses mastery of fundamentals of language in writing. The course emphasizes mastery of basic grammar and mechanics and basic compositional skills. The construction of well-organized paragraphs will be stressed. Must make a grade of "A" or "B" to attempt next level.

ENGL 0302: Basic Writing II (3:3-0)

This course stresses individual self-expression through language. It provides opportunities for students to express their ideas through written composition. Basic forms of rhetoric are analyzed. This course will focus on the skills needed to write 300-600 word essays. Must make a grade of "A" or "B" to complete the Basic Writing program.

ENGL 0307: English as a Second Language (3:3-0)

This course is a concentrated study of vocabulary, pronunciation, and sentence structure. It includes review of grammatical structure, exposure to common sentence-level grammatical mistakes, and an introduction to the basic principles of composition. The course will emphasize computer-assisted instruction through the Learning Assistance Center.

ENGL 1301: Composition I (3:3-0)

The course consists of an intensive study of the principles of writing, analysis and discussion of expository selections, theme writing, collateral reading, and grammar. W

ENGL 1302: Composition II (3:3-0)

Emphasis is placed on critical thinking and argument theory through reading, analyzing and writing about various issues. Research writing is required. Prerequisite ENGL 1301 or credit for ENGL 1301 by examination. W

ENGL 2307: Creative Writing I (3:3-0)

This course offers an introduction to creative writing. It is designed to encourage students to express themselves in positive ways. The course will concentrate on writing short stories, poems, and short narratives. Prerequisite: ENGL 1301, R, W

ENGL 2308: Creative Writing II (3:3-0)

This course offers an opportunity to enhance creative writing skills. The course will focus on writing short stories, poems, and/or longer narratives. Submission procedures for publication will also be covered. Prerequisite: ENGL 2307, R, W

ENGL 2311: Technical and Business Writing (3:3-0)

This course is designed for science, pre-engineering, computer-aided design, computer information systems, entertainment and business software development, child development, dental hygiene, nursing (ADN), general business and management students. The course covers the writing of letters, reports, memoranda, proposals, progress reports, and resumes. The course includes audience analysis and empirical research. The preparation and presentation of oral reports include PowerPoint and/or video presentations. The student will also use word-processing programs. Prerequisite: ENGL 1301 or consent of the instructor. R, W

ENGL 2322: British Literature I (3:3-0)

This course is a survey of English Literature from the Old English Period through the Eighteenth Century. A study of prose and poetry, assigned reading, essays, and tests constitute the work of the course. Research writing is required. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2323: British Literature II (3:3-0)

This course is a continuation of the study of English Literature from the Romantic Period through the Modern Period. A study of prose and poetry, assigned reading, essays, and tests constitute the work of the course. Research writing is required. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2327: American Literature I (3:3-0)

This course is a historical and critical study of the major poetry and prose writers from the Puritan Period to the Civil War. A study of prose and poetry, assigned reading, essays, and tests constitute the work of the course. Research writing is required. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2328: American Literature II (3:3-0)

This course, a continuation of the study of American Literature, is a historical and critical study of the major poetry and prose writers from the Reconstruction Period to the Present. A study of prose and poetry, assigned reading, essays, and tests constitute the work of the course. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2332: World Literature I (3:3-0)

A study of Western World Literature from the Classical Period to the Renaissance. Writing intensive. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2333: World Literature II (3:3-0)

A study of Western World Literature from the Neoclassical Period to the present. Writing intensive. Prerequisite: ENGL 1302 or ENGL 2311. R

ENGL 2370: Advanced Literature Analysis (3:3-0)

Intensive analysis of literary works. May be unified by theme, period, or subject matter.

ENVIRONMENTAL SCIENCE

ENVR 1101: Environmental Science Laboratory I (1:0-2)

The laboratory will provide practical exposure to the methods of measurement, analysis and interpretation of environmental data. The student, in addition to doing lab experiments, will be involved in the collection of data from the environment and report preparation. Field trips may be required. Prerequisite: ENVR 1301 or concurrent enrollment in ENVR 1301. \$24 lab fee. R

ENVR 1301: Environmental Science I (3:3-0)

This is a one semester course designed for non-science majors, and others who desire a low mathematical view of environmental science. It is a general interest course requiring a minimum of previous science background. The course involves relating scientific knowledge to problems involving energy and the environment and addressing issues that range from local to global effects. Topics include energy resources, water, mineral resources, air and water pollutants, pesticides and other toxic chemicals, solid and hazardous wastes, crowding, land use and abuse, economic considerations and some governmental regulatory agencies. R

FRENCH

FREN 1411: Beginning French I (4:3-2)

Students study the French language and culture. Emphasis is placed on grammar and speaking skills. This is a foundation course in which basic communication skills of the French language are developed. Language Lab will be a part of class instruction.

FREN 1412: Beginning French II (4:3-2)

A continuation of FREN 1411 with increasing emphasis on using French to give and receive non-memorized information. This course teaches the structural patterns necessary to convey messages. Prerequisite: FREN 1411.

FREN 2311: Intermediate French I: Oral Expression, Reading and Composition (3:3-0)

An expansion of the study of structural patterns in French. The course will continue to provide information on the cultural and linguistic elements of French. Students will work on oral expression, reading, comprehension, and composition.

FREN 2312: Intermediate French II: Oral Expression, Reading and Composition (3:3-0)

A continuation of the study of the French language. The course will continue to advance through the study of the cultural and linguistic elements of French. Students will work on oral expression, reading, comprehension, and composition. Prerequisite: FREN 2311 or equivalent.

GEOGRAPHIC INFORMATION SYSTEMS

GISC 1301: Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning System (GPS) (3:2-4)

Introduction to the principles of cartography and geography. Emphasis on global references systems and the use of satellites for measurements and navigation. Lab fee \$24.

GISC 1311: Introduction to Geographic Information Systems (GIS) (3:2-4)

Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. ArcGIS® software will be used. Lab fee \$24.

GISC 1321: Introduction to Raster-Based Geographic Information Systems (GIS) (3:2-4)

Instruction in GIS data sets including raster-based information such as images or photographs, acquisitions of such data, and processing and merging with vector data. Lab fee \$24.

GISC 1391: Special Topics in Cartography (3:2-4)

Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relative to the professional development of the student. Lab fee \$24.

GISC 2301: Data Acquisition & Analysis in Geographic Information Systems (GIS) (3:2-4)

Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis. Lab fee \$24. . Prerequisite: GISC 1301, GISC 1311, or instructor's approval.

GIS 2311: Geographic Information Systems (GIS) Applications (3:2-3)

Application of GIS technology to real workplace applications from public and private sector. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises. Lab fee \$24. Prerequisite: GIS 1301, GIS 1311, or instructor's approval.

GIS 2320: Intermediate Geographic Information Systems (GIS) (3:2-4)

This course focuses on the study of spatial data structures and the display, manipulation, and analysis of geographic information. Students will study the technical aspects involved in spatial data handling, analysis and modeling. Instruction will include theories and procedures associated with the implementation and management of GIS projects. A variety of GIS software packages will be used in the laboratory. Lab fee \$24. Prerequisite: GIS 1301, GIS 1311, or instructor's approval.

GIS 2380: Cooperative Education – Cartography (3:1-20)

Career-related activities encountered in the student's area of specialization are offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: GIS 1301, GIS 1311, or instructor's approval.

GEOGRAPHY**GEOG 1300: Principles of Geography (3:3-0)**

The basic elements of cultural and physical geography. This will include maps, weather and climate, land forms, population, urban, nations, states, and other related topics.

GEOG 1301: Physical Geography (3:3-0)

A study of the earth as the habitat of man; an interpretative description of the earth in space; maps; weather and climate; spatial distribution of land forms, soils, water, minerals, plants and animals. Usually offered only in the spring semester.

GEOG 1302: Cultural Geography (3:3-0)

Introduction to the concepts which provide a foundation for continued study of geography. Includes the different elements of natural environment as related to human activities, modes of living and map concepts.

GEOG 1303: World Regional Geography (3:3-0)

A study of major world regions with emphasis on prevailing conditions and developments, including emerging conditions and trends, and the awareness of diversity of ideas and practices to be found in those regions. Course content may include one or more regions.

GEOG 2312: Economic Geography (3:3-0)

Analytical study of the historical development of particular economic distributions as they relate to social, cultural, political, and physical factors. Includes critical inquiry into the reasons for location of various types of economic activity, production, and marketing. (Also known as ECON 2311)

GEOG 2389: Academic Cooperative (3:2-4)

An instructional program designed to integrate on-campus study with practical hands-on experience in geography. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. \$16 Lab fee.

GEOLOGY**GEOL 1103: Physical Geology Laboratory (1:0-3)**

This course is designed to complement GEOL 1303. The laboratory includes investigation of current and past geologic events as well as identification of the different rock types. Laboratory examinations and experiments as well as computer modeling and simulations will be used. Some field trips may be required. Prerequisite: GEOL 1303 or concurrent enrollment in GEOL 1303. \$24 lab fee. R, W

GEOL 1104: Historical Geology Laboratory (1:0-3)

This course is designed to complement GEOL 1304. This course will present a study of the geologic history and evolution of the earth to the present. The course involves laboratory examinations and experiments, as well as, computer modeling and simulations. Some field trips may be required. Prerequisite: GEOL 1103 and GEOL 1304 or concurrent enrollment in GEOL 1304. \$24 lab fee. R, W

GEOL 1303: Physical Geology (3:3-0)

Principles of physical geology. This course studies the earth's composition, structure, and resources. Also examined are the internal and external processes that change and shape the planet we live on. R, W

GEOL 1304: Historical Geology (3:3-0)

This course will present a study of the geological history and evolution of the Earth. The course focuses on the relationship between geologic events throughout Earth's history and the evolution of its plants and animals.

Prerequisite: GEOL 1303, R, W

GEOL 1305: Environmental Geology (3:3-0)

This course studies the earth as a habitat. The main focus is on the interrelationships between humans and the environment with emphasis placed on the geological aspect. Some topics to be included are water resources, mass wasting, geology and climate interactions, soil resources, mineral and energy resources, and pollution. Environmental law and land use planning may also be studied. Prerequisite: GEOL 1303. R, W

GOVERNMENT

GOVT 2301: American Government I (3:3-0)

This course surveys the origin and development of the U.S. and Texas Constitutions, federalism, interstate relations, political parties, interest groups, political campaigns, and elections. Meets Texas teacher certification requirement. GOVT 2301 and GOVT 2302 are separate courses and neither is prerequisite for the other. Either may be taken first or both may be taken in the same semester. R, W

GOVT 2302: American Government II (3:3-0)

Primary emphasis is on the legislative, executive, and judicial systems of local, state, and federal governments as established in the Texas and U.S. Constitutions. Included are the bureaucracy and selected problems in making public policy. Meets Texas teacher certification requirement. GOVT 2301 and GOVT 2302 are separate courses and neither is prerequisite for the other. Either may be taken first, or both may be taken in the same semester. R, W

HEALTH PROFESSIONS

This course is an overview of the roles of various members of the health care system, educational requirements, employment opportunities and issues affecting the delivery of health care. This course is intended for individuals who are either entering the health care field for the first time, already in the work force but are transitioning into the health field, and those who are moving into Health Care Administration. It is being offered as an Internet and Hybrid course.

HPRS 1201: Introduction to Health Professions (2:2 – 0)

Discuss the roles of various health care professionals in the current health care delivery system; outline the educational background methods of credentialing and licensing requirements of health care professions on a state and national level; identify legal and ethical issues affecting the practice of health care professionals; define professionalism and the rights and responsibilities of being a health care professional.

HISTORY

HIST 1301: United States History I (3:3-0)

A general survey of the United States from the period of discovery through the Reconstruction. Requirement for Associate in Arts Degree and teacher certification. R,W.

HIST 1302: United States History II (3:3-0)

A continuation of History 1301. The history of the United States since the Reconstruction to the present time. Requirement for Associate in Arts Degree and teacher certification. R,W.

HIST 2301: Texas History (3:3-0)

This course gives a rapid survey of the history of Texas. Topics stressed include: European approach to Texas, Spanish and French rivalry, exploration and settlement by the Spanish, the coming of the Anglo-Americans, relations with Mexico, Texas Revolution, Republic, annexation, statehood, reconstruction, recovery and development with special emphasis on Texas in the 20th Century. R, W

HIST 2311: Western Civilization I (3:3-0)

A general survey of western civilization from prehistoric times to 1600. R, W

HIST 2312: Western Civilization II (3:3-0)

A general survey of western civilization from 1600 to the present. R, W

HUMANITIES

HUMA 1301: Introduction to the Humanities I (3:3-0)

An exploration of human values significant to western civilization, incorporating influences of Asian and African cultures through great works of philosophy, architecture, literature, music and the visual arts from prehistory to the twentieth century. Interdisciplinary, multi-perspective assessment of factors critical to the formulation of values of the individual and society. R, W

HUMA 1302: Introduction to the Humanities II (3:3-0)

A continuation of HUMA 1301 focusing on the students' directed studies of two or more cultural systems through the application of principles and skills found in the several humanities disciplines. Emphasis will be placed on the diversity of ethnic and national cultures represented in America today. R, W

HUMAN RESOURCES

HRPO 1311: Human Relations (3:3-0)

Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment.

HRPO 2301: Human Resources Management (3:3-0)

Behavioral and legal approaches to the management of human resources in organizations.

HRPO 2307: Organizational Behavior (3:3-0)

The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts, and the integration of interdisciplinary concepts from the behavioral sciences.

MARKETING

MRKG 1302: Principles of Retailing (3:3-0)

Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing.

MRKG 1311: Principles of Marketing (3:3-0)

Introduction to the marketing functions; identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research.

MRKG 1313: Public Relations (3:3-0)

Exploration of the theories, techniques, and processes of public relations including means of influencing methods of building good will, analysis of media, obtaining publicity, and implementation of public relations programs.

MRKG 2349: Advertising and Sales Promotion (3:3-0)

Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints.

MATHEMATICS

Any student enrolled in a mathematics course at Temple College will be eligible to attend a mathematics lab. The lab will be open at least 35 hours each week and will be staffed by the lab director, regular math faculty members and peer tutors. Lab attendance of at least one hour per week will be required for students enrolled in Math 0310, Math 0320, Math 0330, and Math 0340. These students may also meet lab attendance requirements by attending other sessions instituted by the College, as approved by the chair of the Mathematics Department.

MATH 0310: Pre-Algebra I (3:3-1)

This is a pre-algebra course. It covers fractions, decimals, ratio and proportion, percent, geometric facts, statistical graphs, signed numbers, and a brief introduction to linear equations. Students will review the elements of the assessment test, as well as topics such as applications of mathematics, and math anxiety. Lab required. Prerequisite: THEA score under 206 or ACCUPLACER score under 42 or ASSET score under 30 or COMPASS score under 23.

\$15 Lab Fee. This course also requires a course (license) fee.

MATH 0320: Pre-Algebra II (3:3-1)

This is a continuation of MATH 0310. It covers fractions, decimals, ratio & proportion, percent, geometric facts, statistical graphs, signed numbers, and a brief introduction to linear equations. Students will review the elements of the assessment test, as well as topics such as applications of mathematics, and math anxiety. Lab Required. Prerequisite: grade of D or C in Math 0310. \$15 Lab Fee. This course also requires a course (license) fee.

MATH 0330: Introduction to Algebra I (3:3-1)

This course covers topics from the first year of algebra: operations with signed numbers, solving linear equations, graphing lines, exponent rules, operations with polynomials, factoring, solving linear systems, and an introduction to solving quadratic equations. Lab required. Prerequisite: grade of A or B in MATH 0310 or MATH 0320 or an adequate, non-passing placement test score. \$15 Lab Fee. This course also requires a course (license) fee.

MATH 0340: Introduction to Algebra II (3:3-1)

This course is a continuation of MATH 0330, which covers topics from the first year of algebra: operations with signed numbers, solving linear equations, graphing lines, exponent rules, operations with polynomials, factoring, solving linear systems, and an introduction to solving quadratic equations. Lab required. Prerequisite: grade of D or C in MATH 0330. \$15 Lab Fee. This course also requires a course (license) fee.

MATH 0350: Intermediate Algebra (3:3-0)

This course prepares students for Math 1314 and Math 1324. This course covers topics from the second year of algebra: exponent rules, fractional exponents, operations with polynomials, factoring, operations with rational expressions, operations with radicals, solving linear and quadratic equations and inequalities, graphing lines and parabolas, graphing linear inequalities, and solving systems of linear equations and inequalities. This course may also introduce students to conics and to functions including exponential and logarithmic functions. Students may be required to use a calculator. Prerequisite: A or B in MATH 0330 or MATH 0340 or a score of 230 on THEA-Math test or a satisfactory score on placement test. \$15 Lab Fee. Course (license) fee applies for students at the Cameron site.

MATH 1314: College Algebra (3:3-0)

This course explores the properties of several common types of functions along with their graphs. Functions include polynomial, rational, exponential, logarithmic, and inverses. This course covers methods of solving systems of equations, linear programming, and matrices. Students may be required to use a calculator. Prerequisite: MATH 0350 or a score of 270 on THEA-Math test or equivalent score on an assessment test or Texas Success Initiative exempt (ACT, SAT, TAKS). \$15 Lab Fee. M

MATH 1316: Plane Trigonometry (3:3-0)

This course consists of a study of trigonometric functions, trigonometric identities, radian and degree measure, graphs of trigonometric functions, trigonometric equations, solutions of triangles, inverse trigonometric functions, and vectors. Students will be required to use a calculator. Prerequisite: MATH 0350 or MATH 1314 or a score of 270 on THEA-Math test or equivalent on an assessment test or Texas Success Initiative exempt (ACT, SAT, TAKS). \$15 Lab Fee. M

MATH 1324: Mathematics for Business and Social Science I (3:3-0)

This course covers linear and quadratic functions, matrices, linear programming, compound interest, and probability and descriptive statistics. Students will be required to use a calculator. Prerequisite MATH 0350 or higher or 270 on THEA-Math test or equivalent on an assessment or Texas Success Initiative exempt (ACT, SAT, TAKS). \$15 Lab Fee. M

MATH 1325: Mathematics for Business and Social Science II (3:3-0)

This course includes topics in functions and relations, coordinate geometry, slopes, limits and continuity, derivatives and differentiation, maxima and minima, anti-derivatives, summations and integration, and applications of polynomial and transcendental calculus, including functions of two variables. Students will be required to use a calculator. Prerequisite: MATH 1324 (MATH 1314 is acceptable, but not preferable). \$15 Lab Fee. M

MATH 1332: Contemporary Mathematics I (3:3-0)

This course consists of a study of linear and exponential growth, descriptive statistics, personal finance, and other applications of simple modeling. It emphasizes using critical thinking to make decisions based on information. Some sections will be designated as technical sections and place emphasis on technology applications. Students may be required to use a calculator. Prerequisite: grade of A or B in MATH 0330 or MATH 0340 or pass an assessment test. \$15 Lab Fee. M

MATH 1333: Contemporary Mathematics II (3:3-0)

This course is a continuation of MATH 1332. Topics may include geometry, right triangle trigonometry, and sampling theory. The emphasis will be on mathematically based critical thinking. Students may be required to use a calculator. Prerequisite: grade of A or B in MATH 0330 or MATH 0340 or pass an assessment test. \$15 Lab Fee. M

MATH 1348: Analytic Geometry (3:3-0)

This course includes the study of Cartesian and polar coordinates, graphs of functions and relations, algebraic solutions of systems of relations and functions, parametric equations, vectors and direction cosines. Vector concepts are an integral part of this course. Students may be required to use a calculator. Prerequisite: MATH 1314 and MATH 1316. \$15 Lab Fee. M

MATH 1350: Fundamentals of Mathematics I (3:3-0)

Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational and real number systems with an emphasis on problem solving and critical thinking. Prerequisite: MATH 1314 or MATH 1332. \$15 Lab Fee. M

MATH 1351: Fundamentals of Mathematics II (3:3-0)

Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving. Prerequisite: M, MATH 1314 or 1332. \$15 Lab Fee. M

MATH 2305: Discrete Mathematics (3:3-0)

This course includes topics in mathematical logic and induction, relations and functions, basic counting techniques, graphs and trees, and applications to computing devices. Students may be required to use a calculator. Prerequisite: MATH 2412.

MATH 2318: Linear Algebra (3:3-0)

Systems of linear equations, vector spaces, linear dependence, bases, and dimensions; inner product, matrices and determinants, and permutations. Students may be required to use a calculator.

Prerequisite: MATH 2413.

MATH 2320: Differential Equations (3:3-0)

Differential equations of first, second, and higher order, solution in series, applications, and Laplace transformations. Students may be required to use a calculator. Prerequisite: At least six semester hours of calculus.

MATH 2342: Elementary Statistical Methods (3:3-0)

This course includes topics from probability and statistics. Emphasis is on the use of various distributions, measurements, sampling methods, hypothesis testing, and written analysis of results. Regression analysis is included. Students will be required to use a calculator and/or a computer. Prerequisite: MATH 1314 or MATH 1324. R, W, M

MATH 2412: Pre-calculus Math (4:4-0)

This course includes an integrated treatment necessary for calculus. Topics include trigonometric functions, trigonometric identities, radian and degree measure, graphs of trigonometric functions, trigonometric equations, solutions of triangles, inverse trigonometric functions, vectors (parametric and polar representations are included), conic sections, sequences and series, and mathematical induction. Students may be required to use a calculator. Prerequisite: MATH 1314 or its equivalent or Texas Success Initiative exempt (ACT, SAT, TAKS).

MATH 2413: Calculus I (4:4-0)

This course includes limits and continuity, differentiation of algebraic functions, various applications of the derivatives, maxima and minima, differentials and anti-differentiation, mean value theorem for derivatives, integration, the definite integral, differentiation and integration of transcendental functions, and L'Hospital's rule. Students may be required to use a calculator. Prerequisite: High school calculus, MATH 2412 or MATH 1348. MATH 1348 and MATH 2413 may be taken simultaneously.

MATH 2414: Calculus II (4:4-0)

This course covers formal integration by various techniques, calculus of polar and parametric forms, Taylor polynomials, sequences and series, power series, and applications of the definite integral. Students may be required to use a calculator. Prerequisite: MATH 2413.

MATH 2415: Calculus III (4:4-0)

This course involves multivariable calculus with applications, three-dimensional analytic geometry, partial differentiation including maxima and minima, multiple integrals, and calculus of vector functions. This course may include calculus of vector fields. Students may be required to use a calculator. Prerequisite: MATH 2414.

MUSIC**MUSI 1116: Elementary Sight Singing and Ear Training I (1:1-2)**

Aural training in the recognition of scales, intervals, triads, harmonic cadences, rhythmic patterns, and meters. Singing of intervals and simple melodies.

MUSI 1117: Elementary Sight Singing and Ear Training II (1:1-2)

A continuation of MUSI 1116 with advanced exercises in the hearing and singing of music. Prerequisite: MUSI 1116 or permission of the instructor.

MUSI 1171: Student Recital (1:0-3)

Recital attendance credit for music majors and minors. Required of all music majors and minors. This course may be repeated for credit. Maximum of 4 credits.

MUSI 1263: Improvisation I (2:2-1)

Materials and practices for improvisation or extemporaneous playing and /or singing.

MUSI 1264: Improvisation II (2:2-1)

Materials and practices for improvisation or extemporaneous playing and/or singing. Prerequisite: MUSI 1263

MUSI 1301: Fundamentals of Music I (3:3-0)

A basic introduction to the elements of music. Study includes the staff, clefs, rhythms, key signatures, scales, and chords. Introductions to sight singing, ear training, and keyboard skills. The course is for non-music majors and for music majors or minors with little or no background in music.

MUSI 1302: Fundamentals of Music II (3:3-0)

Continuation of the basic study of music notation, chord structure, intervals, and terminology. To recognize visually and aurally major, minor, diminished, augmented chords and intervals. The students will learn and be able to impart rudimentary elements of keyboard study to beginning pupils. Lab sessions to be held at the McGowan-Stephens school.

MUSI 1306: Music Appreciation (3:3-0)

A non-technical approach to the enjoyment of music with emphasis on intelligent listening procedures of classical, pop, and rock music. Introduction to the cultural periods, major composers, and elements of music. For non-music majors or minors.

MUSI 1308: Music Literature I (3:3-2)

For music majors, music minors, and honors students. A survey of musical forms and cultural periods as illustrated in the literature of major composers. R, W

MUSI 1309: Music Literature II (3:3-2)

A continuation of MUSI 1308. For music majors, music minors, and honors students. R, W

MUSI 1310: American Music (3:3-0)

Offers students an in-depth view of all jazz styles as well as rock, pop, soul, and "new age" music. Extensive listening in and outside of class provides further exposure and understanding of popular music and its relationship with the music industry. Open to any student.

MUSI 1311: Music Theory I (3:2-2)

A course in the elements of music for music majors and minors. Review of the fundamentals of rhythm, melody, and harmony including study of the staff, clefs, key signatures, scales, time signatures, and notation. Part writing of figured bass exercises and melody harmonization requiring the principal triads. Prerequisite: MUSI 1301 or permission of the instructor.

MUSI 1312: Music Theory II (3:2-2)

Continuation of MUSI 1311. Part writing of figured bass exercises and melody harmonization requiring all diatonic triads, the dominant seventh and supertonic seventh chords, and non-harmonic tones. Prerequisite: MUSI 1311 or permission of the instructor.

MUSI 2116: Advanced Sight Singing and Ear Training I (1:1-2)

Singing modulations to closely related keys: modal melodies. Aural study of compound intervals, melodic and harmonic modulation, and all diatonic seventh chords. Prerequisite: MUSI 1117.

MUSI 2117: Advanced Sight Singing and Ear Training II (1:1-2)

Singing remote modulations and more difficult melodies. Aural study of unusual and mixed meters, remote modulation, altered chords, 9th, 11th, and 13th chords. Prerequisite: MUSI 2116

MUSI 2311: Music Theory III (3:2-2)

Analysis and part writing of materials involving altered chords, sevenths, and modulations. Prerequisite: MUSI 1212.

MUSI 2312: Advanced Music Theory IV (3:2-2)

Continuation of MUSI 2211. Completion of the study of music elements from the standard practice period. Survey of 20th Century techniques. Prerequisite: MUSI 2211

ELECTRONIC MUSIC

MUSC 1327: Audio Engineering I (3:2-2)

Overview of the recording studio. Topics include basic studio electronics and acoustic principles, wave form analysis, microphone concepts and miking techniques, studio set up and signal flow, recording console theory, signal processing concepts, tape machine principles and operation, and an overview of mixing and editing.

MUSI 1390: Electronic Music I (2:2-1)

An introduction to MIDI and its applications. Use of computer, MIDI interface, synthesizers, drum machine and digital audio in developing musical projects. Competency developed with music sequencing and graphics software. Open to all students.

ENSEMBLES

All ensembles are open to all students regardless of major. Performing ensembles serve three distinct purposes: (1) they provide music majors with the ensemble participation necessary for successful completion of their music degree; (2) they provide those not majoring in music an enjoyable outlet, the experience of self-expression, and the social development that results from participation in a group activity; (3) they serve as valuable public relations agents for the College, and for this reason, students have the opportunity to travel and perform at a variety of functions. A great way to get involved at Temple College is to become a

member of one of the performing ensembles.

All music majors and minors are required to participate in a minimum of one major ensemble during each semester they are in residence.

All ensembles may be repeated for credit. Maximum of 8 credits each.

VOCAL ENSEMBLES

MUEN 1141: Show Choir (1:0-5)

Open to any student by audition only. Rehearsal and performance of popular songs and music of the Broadway stage. Extensive performance opportunities including song and dance combinations. Maximum of 8 credits

MUEN 1142: Chorale (1:0-5)

Open to any student by audition only. Designed to give participants a more challenging, stylized choral experience. Performs a wide variety of literature (including instrumental-choral), emphasizing the more difficult choral works. Presents concerts on campus and at various functions in the area. Maximum of 8 credits

MUEN 1143: Swing Choir (1:0-5)

Open to any student by audition only. Rehearsal and performance of vocal swing/jazz including music from the 1930's through present. Will perform on and off campus. Maximum of 8 credits

INSTRUMENTAL ENSEMBLES

MUEN 1121: Symphonic Band (1:0-5)

Open to any instrumentalist by audition only. Performs a wide range of literature from popular selections to the more advanced works for wind ensemble. Presents concerts on campus and at various functions in the area. Maximum of 8 credits

MUEN 1122: Jazz Orchestra (1:0-5)

Open to any instrumentalist by audition only. Offers students an intensive study and experience with jazz and other big band literature. Travels in the Central Texas area presenting concerts at high schools, civic functions, etc. Maximum of 8 credits

MUEN 1123: Orchestra (1:0-5)

Open to any instrumentalist by audition only. Gives players the opportunity to perform in a large orchestral ensemble. Performs in a wide variety of music from popular to more serious orchestral literature. Presents concerts on the TC campus. Maximum of 8 credits

MUEN 1124: Jazz Ensemble (1:0-5)

Open to any instrumentalist by audition only. Offers students experience in big band styles and jazz improvisation. Presents concerts on campus and throughout the community. Maximum of 8 credits

MUEN 1131: Chamber Ensemble (Mixed) (1:0-2)

Rehearsal and performance of chamber music literature for small groups, including strings, woodwinds, brass, piano, and voice. Will perform on and off campus. Maximum of 8 credits

MUEN 1132: Chamber Ensemble (Piano) (1:0-2)

Required for all piano majors or piano emphasis students. A study of piano technique and literature with a participation in ensemble performances. Maximum of 8 credits

MUEN 1133: Chamber Ensemble (String) (1:0-2)

Open to any string player. No audition required. Gives string players experience in playing chamber orchestra literature. Presents concerts on campus and accompanies other campus ensembles in major musical works. Maximum of 8 credits

MUEN 1134: Chamber Ensemble (Woodwind) (1:0-2)

Rehearsal and performance of chamber music for woodwinds, with emphasis on the development of the literature from 1700 to the present. Maximum of 8 credits

MUEN 1135: Chamber Ensemble (Brass) (1:0-2)

Rehearsal and performance of chamber music for brass instruments, with attention focused on the development of the literature from 1550 to the present. Maximum of 8 credits

MUEN 1136: Chamber Ensemble (Percussion) (1:0-2)

Rehearsal and performance of chamber music for percussion, with emphasis on Twentieth Century literature. Maximum of 8 credits

MUEN 1137: Chamber Ensemble (Low Brass) (1:0-2)

Rehearsal and performance of chamber music for low brass instruments. Maximum of 8 credits

MUEN 1138: Chamber Ensemble (Flute) (1:0-2)

Open to any student by audition only. Rehearsal and performance of chamber music for flute. Maximum of 8 credits

MUEN 1139: Chamber Ensemble (Guitar) (1:0-2)

Offers the guitarist the opportunity to rehearse and perform with other guitarists. This ensemble presents concerts throughout the school year on and off the TC campus. For beginners to advanced players. Maximum of 8 credits

MUEN 1140: Jazz Combo (1:0-2)

The jazz combo is a small select instrumental group that performs compositions from a variety of jazz styles such as samba, bossa nova, swing, bebop, and fusion. Students will also study the historical development of jazz and the fundamentals of improvisation, interpretation, and performance of jazz. Maximum of 8 credits

MUEN 2131: Collegium Musicum (1:0-2)

Collegium Musicum is a chamber ensemble devoted to the rehearsal and performance of early music with emphasis on historical accuracy of style, instruments, and other musical considerations. The ensemble concentrates on western art music of the Middle Ages, Renaissance, and Baroque eras, although art music of other regions and folk music may also be included. Maximum of 8 credits

MUSICAL THEATRE/OPERA**MUSI 1159: Musical Theatre I (1:0-5)**

Open by audition to all students. Considers stage movement, use of voice in musical theatre, spoken dialogue, and musical theatre acting. Culminates in public performance of a complete musical. This course may be repeated for credit. Maximum of 2 credits.

MUSI 1258: Opera Workshop (2:0-3)

Required of all voice concentrates and open by permission to all other students by audition; will consider the development and use of the voice in theatre; culminates in some variety of opera scenes or short opera for public performance. This course may be repeated for credit. Maximum of 4 credits.

APPLIED MUSIC

Class or private study is available to all students of the College on both beginning and advanced levels of instruction. Lessons are offered in brass, guitar, organ, percussion, piano, strings, voice, and woodwinds.

Detailed requirements in the technique and repertoire for each of the course numbers may be obtained from the Music Department Office, the applied instructors, and the College Advising Office.

Students who register for private instruction in voice, piano, or instruments must understand that all private instruction is scheduled TBA ("to be arranged"), meaning that the day and time for lesson(s) each week is "to be arranged" with the teacher of that applied area. Consequently, the student must contact the teacher to arrange his lesson time(s) during the first week of the semester. Class instruction is scheduled in regular class periods.

All music majors are required to take two-hours credit in their principal instrument. Music minors are required to take one-hour credit in their principal instrument. No student is allowed to take more than four hours of applied music in any one semester.

The organizational structure of the applied music division allows the student to receive instruction and progress on a level that is consistent with his musical goals. Specifically, non-music majors will be allowed to progress under less rigid standards than music majors.

MUSI 1181: Piano Class I (1:0-2)

Beginning instruction in keyboard for the music major/minor whose principal instrument is other than keyboard and for the beginning non-music major/minor who wants to begin learning basic piano skills.

MUSI 1182: Piano Class II (1:0-2)

A continuation of MUSI 1181.

MUSI 2181: Piano Class III (1:0-2)

Continuation of Class Piano I and II, with emphasis on scales and arpeggios (hands together), harmonization, sight-reading, score reading, ensemble, and simple accompanying.

MUSI 2182: Piano Class IV (1:0-2)

Continuation of Keyboard Skills I with further study given to scales (to include chromatic), arpeggios, broken chords, score reading, solo and ensemble performance, and accompanying.

PRIVATE INSTRUCTION**VOICE - R**

MUAP: 1181, 1182, 2181, 2182 (1:0.5/0)

MUAP: 1281, 1282, 2281, 2282 (2: 1/0)

PERCUSSION

MUAP: 1157, 1158, 2157, 2158 (1:0.5/0)

MUAP: 1257, 1258, 2257, 2258 (2: 1/0)

PIANO

MUAP: 1169, 1170, 2169, 2170 (1:0.5/0)

MUAP: 1269, 1270, 2269, 2270 (2:1/0)

JAZZ PIANO

MUAP: 1171, 1172, 2171, 2172 (1:0.5/0)

MUAP: 1271, 1272, 2271, 2272 (2:1/0)

BRASS**TRUMPET**

MUAP: 1137, 1138, 2137, 2138 (1:0.5/0)

MUAP: 1237, 1238, 2237, 2238 (2: 1/0)

FRENCH HORN

MUAP: 1141, 1142, 2141, 2142 (1:0.5/0)

MUAP: 1241, 1242, 2241, 2242 (2: 1/0)

TROMBONE

MUAP: 1145, 1146, 2145, 2146 (1:0.5/0)

MUAP: 1245, 1246, 2245, 2246 (2: 1/0)

BARITONE/TUBA

MUAP: 1149, 1150, 2149, 2150 (1:0.5/0)

MUAP: 1249, 1250, 2249, 2250 (2: 1/0)

WOODWINDS**FLUTE**

MUAP: 1117, 1118, 2117, 2118 (1:0.5/0)

MUAP: 1217, 1218, 2217, 2218 (2: 1/0)

OBOE

MUAP: 1121, 1122, 2121, 2122 (1:0.5/0)

MUAP: 1221, 1222, 2221, 2222 (2: 1/0)

CLARINET

MUAP: 1129, 1130, 2129, 2130 (1:0.5/0)

MUAP: 1229, 1230, 2229, 2230 (2: 1/0)

SAXOPHONE

MUAP: 1133, 1134, 2133, 2134 (1:0.5/0)

MUAP: 1233, 1234, 2233, 2234 (2: 1/0)

BASSOON

MUAP: 1125, 1126, 2125, 2126 (1:0.5/0)
 MUAP: 1225, 1226, 2225, 2226 (2: 1/0)

STRINGS**VIOLIN**

MUAP: 1101, 1102, 2101, 2102 (1:0.5/0)
 MUAP: 1201, 1202, 2201, 2202 (2: 1/0)

VIOLA

MUAP: 1105, 1106, 2105, 2106 (1:0.5/0)
 MUAP: 1205, 1206, 2205, 2206 (2: /0)

CELLO

MUAP: 1109, 1110, 2109, 2110 (1:0.5/0)
 MUAP: 1209, 1210, 2209, 2210 (2: 1 /0)

BASS

MUAP: 1113, 1114, 2113, 2114 (1:0.5/0)
 MUAP: 1213, 1214, 2213, 2214 (2: 1/0)

BASS-ELECTRIC

MUAP: 1115, 1116, 2115, 2116 (1:0.5/0)
 MUAP: 1215, 1216, 2215, 2216 (2: 1/0)

GUITAR-CLASSICAL

MUAP: 1161, 1162, 2161, 2162 (1:0.5/0)
 MUAP: 1261, 1262, 2261, 2262 (2: 1/0)

GUITAR-ELECTRIC

MUAP: 1187, 1188, 2187, 2188 (1:05/0)
 MUAP: 1287, 1288, 2287, 2288 (2: 1/0)

NURSING

The Associate Degree Nursing (ADN) program leads to an Associate of Applied Science degree and allows the graduate to apply to take the state licensing exam for registered nursing.

RNSG 1110: Introduction to Community-Based Nursing (1:1-0)

Overview of the delivery of nursing care in a variety of community-based settings; application of systematic problem-solving processes and critical thinking skills focusing on the examination of concepts and theories relevant to community-based nursing; and development of judgment, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2402, RNSG 1309, RNSG 1201, RNSG 1360, RNSG 1205. Corequisites: PSYC 2314, RNSG 1431, RNSG 1361, RNSG 1146. R, W, M.

RNSG 1146: Legal and Ethical Issues for Nurses (1:1-0)

Study of the laws and regulations related to the provision of safe and effective professional nursing care; attention given to the development of a framework for addressing ethical issues; and topics to include confidentiality, The Nursing Practice Act, professional boundaries, ethics, and health care legislation. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2402, RNSG 1201, RNSG 1205, RNSG 1309, RNSG 1360. Corequisites: PSYC 2314, RNSG 1431, RNSG 1361, RNSG 1110. R, W, M.

RNSG 1201: Pharmacology (2:2-0)

Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2401, ITSE 1294, PSYC 2301. Corequisites: BIOL 2402, RNSG 1309, RNSG 1360, RNSG 1205. R, W, M.

RNSG 1205: Nursing Skills I (2:1-4)

Study of the concepts and principles essential for demonstrating competence in the performance of nursing procedures based on the nursing process. Topics include knowledge, judgment, psychomotor and communication skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2401, ITSE 1294, PSYC 2301. Corequisites: BIOL 2402, RNSG 1309, RNSG 1201, RNSG 1360. \$64.00 Simulation Fee. R, W, M.

RNSG 1309: Introduction to Nursing (3:3-0)

Overview of nursing, nursing process, and the role of the associate degree nurse as a provider of holistic care, coordinator of care, and member of a profession. Topics include knowledge, judgment, communication, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2401, ITSE 1294, PSYC 2301. Corequisites: BIOL 2402, RNSG 1201, RNSG 1360, RNSG 1205. R, W, M.

RNSG 1360: Clinical-Nursing I-Registered Nurse Training (3:0-12)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2401, ITSE 1294, PSYC 2301. Corequisites: BIOL 2402, RNSG 1309, RNSG 1201, RNSG 1205. Approximately \$20.00 liability insurance fee. R, W, M.

RNSG 1361: Clinical-Nursing II-Registered Nurse Training (3:0-14)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2402, RNSG 1309, RNSG 1201, RNSG 1360, RNSG 1205. Corequisites: PSYC 2314, RNSG 1431, RNSG 1146, RNSG 1110. R, W, M.

RNSG 1262: Clinical-Nursing III-Registered Nurse Training (2:0-6)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2421, PSYC 2314, RNSG 1431, RNSG 1146, RNSG 1361, RNSG 1110. Corequisite: RNSG 2213. R, W, M.

RNSG 1431: Principles of Clinical Decision-Making (4:3-4)

Examination of selected principles related to the continued development of the professional nurse as a provider of holistic care, coordinator of care, and member of a profession. Emphasis on clinical decision making for clients in medical-surgical settings experiencing health problems involving fluid and electrolytes, perioperative care, pain; respiratory disorders, peripheral vascular disorders, immunologic disorder, and infectious disorders. Discussion of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2402, RNSG 1309, RNSG 1201, RNSG 1360, RNSG 1205. Corequisites: PSYC 2314, RNSG 1361, RNSG 1146, RNSG 1110. \$64.00 Simulation Fee. R, W, M.

RNSG 1447: Concepts of Clinical Decision-Making (4:3-4)

Integration of previous knowledge and skills into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession. Emphasis on clinical decision-making, for clients in medical-surgical settings experiencing health problems involving gastrointestinal disorders, endocrine and metabolic disorders, reproductive and sexual disorders, musculoskeletal disorders, eye-ear-nose-throat disorders and integumentary disorders. Discussion of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: RNSG 2213, RNSG 1262. Corequisites: ENGL 1301, RNSG 2201, RNSG 2360, 3 credits Fine Arts/Humanities elective. \$64.00 Simulation Fee. \$40.00 assessment test fee. R, W, M.

RNSG 2201: Care of Children and Families (2:2-1)

Study of concepts related to the roles of the nurse in the provision of holistic nursing care for children and their families, emphasizing clinical decision-making, knowledge, judgment, communication, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: RNSG 2213, RNSG 1262. Corequisites: ENGL 1301, RNSG 1447, RNSG 2360, 3 credits Fine Arts/Humanities elective. \$16.00 lab fee. R, W, M.

RNSG 2221: Management of Client Care (2:2-0)

Exploration of leadership and management principles applicable to the role of the nurse as a provider of holistic care, coordinator of care, and member of a profession. Includes application of clinical decision-making, knowledge, judgment, communication, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: ENGL 1301, RNSG 1447, RNSG 2201, RNSG 2360. Corequisites: ENGL 2311, RNSG 2441, RNSG 2361, RNSG 1251. R, W, M.

RNSG 2213: Mental Health Nursing (2:2-1)

Principles and concepts of mental health, psychopathology, and treatment modalities and the role of the nurse related to the holistic nursing care of clients and their families utilizing the nursing process. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2421, PSYC 2314, RNSG 1431, RNSG 1146, RNSG 1361, RNSG 1110. Corequisite: RNSG 1262. \$16 lab fee. R, W, M.

RNSG 1251: Care of the Childbearing Family (2:2-1)

Study of concepts related to the provision of nursing care for childbearing families. Topics may include selected complications. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: ENGL 1301, 3 semester credit hours in Fine Arts Humanities, RNSG 1447, RNSG 2360, RNSG 2201. Corequisites: ENGL 2311, RNSG 2441, RNSG 2361, RNSG 2221. \$16 lab fee. R, W, M.

RNSG 2441: Advanced Concepts of Clinical Decision-Making (4:3-3)

Application of advanced concepts and skills for development of the professional nurse's roles in complex client/nursing situations. Emphasis on clinical decision-making for clients in medical surgical settings experiencing health problems involving cardiovascular disorders, neurological disorders, liver, biliary and pancreatic disorders, renal and urinary disorders, hematologic disorders, and cancer. Focus given to knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: RNSG 1447, RNSG 2360, RNSG 2201. Corequisites: ENGL 2311, RNSG 2361, RNSG 1251, RNSG 2221. \$48.00 lab fee. \$40.00 exit exam fee. R, W, M.

RNSG 2360: Clinical-Nursing IV –Registered Nurse Training (3:0-14)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: A grade of "C" or higher in each of the following courses: RNSG 2213, RNSG 1262. Corequisites: ENGL 1301, 3 SCH Fine Arts/Humanities elective, RNSG 1447, RNSG 2201. Approximately \$20.00 liability insurance fee. R, W, M

RNSG 2361: Clinical-Nursing V –Registered Nurse Training (3:0-14)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisites: A grade of "C" or higher in each of the following courses: ENGL 1301, 3 SCH Fine Arts/Humanities, RNSG 1447, RNSG 2201, RNSG 2360. Corequisites: ENGL 2311, RNSG 2441, RNSG 2221, RNSG 1251. R, W, M

LVN BRIDGING PROGRAM

This program prepares the Licensed Vocational Nurse to make the transition into the professional nursing role. Upon completion of this program graduates receive the Associate of Applied Science degree, which qualifies them to apply for the state licensing examination for registered nursing.

RNSG 1162: Clinical-Nursing-Registered Nurse Training (1:0-4)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: A grade of "C" or

higher in each of the following courses: BIOL 2401, BIOL 2402, BIOL 2421, ITSE 1294, PSYC 2301, PSYC 2314 and VNSG 1323. Corequisite: RNSG 2307. R, W, M. Approximately \$20.00 liability insurance fee. R,W,M.

RNSG 2307: Transition to Nursing Practice (3:3-1)

Introduction to selected concepts related to the role of the associate degree nurse as a provider of care, coordinator of care, and member of a profession. Review of trends and issues impacting nursing and health care today and in the future. Topics include knowledge, judgment, skill, and professional values within a legal/ethical framework. Prerequisites: A grade of "C" or higher in each of the following courses: BIOL 2401, BIOL 2402, BIOL 2421, ITSE 1294, PSYC 2301, PSYC 2314 and VNSG 1323. \$16.00 lab fee. Corequisite: RNSG 1162. R.W.M.

VOCATIONAL NURSING LEVEL I

VNSG 1122: Vocational Nursing Concepts (1:1-0)

Introduction to the nursing profession and its responsibilities and the legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Corequisites: VNSG 1126, 1136, 1160, 1423, BIOL 2404.

VNSG 1126: Gerontology (1:1-0)

Overview of the normal physical, psychosocial, and cultural aspects of the aging process. Addresses common disease processes of aging. Exploration of attitudes toward the holistic care of the elderly in a diverse population. Corequisites: VNSG 1122, 1136, 1160, 1423, BIOL 2404.

VNSG 1136: Mental Health (1:1-0)

Introduction to the principles and theories of positive mental health and human behaviors. Topics include emotional responses, coping mechanisms, and therapeutic communication skills. Corequisites: VNSG 1122, 1126, 1160, 1423, BIOL 2404.

VNSG 1160: Clinical-LVN Training I (1:0-6)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Approximately \$20 per year liability insurance fee. Corequisites: VNSG 1122, 1126, 1136, 1423, BIOL 2404.

VNSG 1423: Basic Nursing Skills (4:3-4)

Mastery of entry level nursing skills and competencies to a diverse population for a variety of healthcare settings. Utilization of the nursing process as the foundation for all nursing interventions to meet the holistic healthcare needs. Laboratory experiences are required. \$64 Simulation Fee. Corequisites: VNSG 1122, 1126, 1136, 1160, BIOL 2404.

LEVEL II

VNSG 1330: Maternal-Neonatal Nursing (3:3-0)

Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. \$16 lab fee. Prerequisites: VNSG 1122, 1126, 1136, 1160, 1423, BIOL 2404. Corequisites: VNSG 1231, 1509, 1560, 2331.

VNSG 1231: Pharmacology (2:2-1)

Fundamentals of medications and their diagnostic, therapeutic, and curative effects. Includes nursing interventions utilizing the nursing process in providing holistic care. \$16.00 lab fee. Prerequisites: VNSG 1122, 1126, 1136, 1160, 1423, BIOL 2404. Corequisites: VNSG 1330, 1509, 1560, 2331. \$16 lab fee.

VNSG 1509: Nursing in Health & Illness II (5:5-0)

Introduction to common health problems of culturally diverse clients requiring medical and surgical interventions during various stages of the life cycle. Prerequisites: VNSG 1122, 1136, 1336, 1160, 1423, BIOL 2404. Corequisites: VNSG 1231, 1330, 1560, 2331.

VNSG 1560: Clinical-LVN-Training II Nurse (5:0-25)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: VNSG 1122, 1126, 1136, 1160, 1423, BIOL 2404. Corequisites: VNSG 1231, 1330, 1509, 2331.

VNSG 2331: Advanced Nursing Skills (3:2-2)

Mastery of advanced level nursing skills and competencies to a diverse population in a variety of healthcare settings utilizing the nursing process as a problem solving tool. Laboratory experiences are required. \$32 Simulation fee. \$40 assessment test fee. Prerequisites: VNSG 1122, 1126, 1136, 1160, 1423, BIOL 2404. Corequisites: VNSG 1231, 1330, 1509, 1560.

LEVEL III

VNSG 1119: Professional Development (1:1-0)

Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Prerequisites: VNSG 1231, 1330, 1509, 1560, 2331. Corequisites: VNSG 1138, 1334, 1510, 2561, ITSE 1294.

VNSG 1138: Mental Illness (1:1-0)

Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. Prerequisites: VNSG 1231, 1330, 1509, 1560, 2331. Corequisites: VNSG 1119, 1334, 1510, 2561, ITSE 1294.

VNSG 1334: Pediatrics (3:3-0)

Study of childhood growth and development, diseases and childcare from infancy through adolescence. Focus is on the care of the well and the ill child utilizing the nursing process in providing family centered holistic nursing care. Prerequisites: VNSG 1231, 1330, 1509, 1560, 2331. Corequisites: VNSG 1119, 1138, 1510, 2561, ITSE 1294.

VNSG 1510: Nursing in Health and Illness III (5:5-1)

Continuation of Nursing in Health and Illness II. Further study of common medical-surgical problems of culturally diverse clients including concepts of mental illness. Content incorporates knowledge necessary to make the transition from the student role to the roles of the graduate vocational nurse as an integral component of the multi-disciplinary healthcare team. \$16 lab fee. \$40 exit exam fee. Prerequisites: VNSG 1231, 1330, 1509, 1560, 2331. Corequisites: VNSG 1119, 1138, 1334, 2561, ITSE 1294.

VNSG 2561: Clinical-LVN-Training III (5:0-25)

This course is a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professionals. Prerequisites: VNSG 1231, 1330, 1509, 1560, 2331. Corequisites: VNSG 1119, 1138, 1334, 1510, ITSE 1294. VNSG 1323. \$16.00 lab fee. Corequisite: RNSG 1162. R.W.M.

PHILOSOPHY

PHIL 1301: Introduction to Philosophy (3:3-0)

A study of universal philosophical problems and their solutions with a view toward developing clear thinking about knowledge, belief, and value. About one half of this course will focus on the student's critical thinking skills.

PHIL 1304: Introduction to World Religions (3:3-0)

A study of the origins and development, sacred writings, beliefs, ethics, and practices of the major world religions-Hinduism, Buddhism, Taoism, Confucianism, Islam, Judaism and Christianity. Attention will also be given to the impact of these faiths upon the current world scene.

PHIL 1316: History of Religions I (3:3-0)

A study of the history and literature of the Hebrew people during the Old Testament period with emphasis upon the development of their social, political and religious institutions and ideas.

PHIL 1317: History of Religions II (3:3-0)

A study of the history and literature of the Christian movement during the New Testament period with emphasis upon the origins, development, and expansion of its religious institutions and ideas.

PHIL 2303: Introduction to Logic (3:3-0)

Introduction to the basic principles of logical reasoning, including fundamentals of sentential logic, traditional syllogistic logic, and the contrasting procedures of induction, probability and the scientific method.

PHIL 2306: Introduction to Ethics (3:3-0)

Introduction to classical and contemporary ethical theories and principles. Includes critical analysis of contemporary and historical moral problems facing individuals and society. Course may emphasize particular applications.

PHIL 2307: Introduction to Social and Political Philosophy (3:3-0)

The course critically examines the issues and problems concerning the organization of societies and government as well as their attendant relationships to the environment. It also employs videos, class discussion, and narrative to discuss the central problems associated with the social, ecological and political relationships of human kind.

PHYSICAL EDUCATION

All activities offered at Temple College are divided into three categories: the regular physical education program; recreational sports and intramural programs; and intercollegiate athletics for both men and women. The regular program of instruction offered by the College is basically designed to offer activities that will not only satisfy graduation requirements, but will be of carry-over value and of recreational interest to the student. This program also carries service courses that may be taken as an elective for the non-major or as a part of required courses towards a major in Physical Education.

Other courses are taught for students pursuing majors in related fields.

The recreational sports program is designed to offer additional activities for students other than those obtained in the regular program of college courses. Individual as well as team activities are offered to both part-time and full-time students. The recreational sport facilities include an indoor swimming pool, gymnasium, fitness center with a cardio room and weight room, racquetball, and tennis court. Further information regarding the intramural program may be obtained from the Recreational Sports/Wellness Director's Office. This information is in the form of an intramural handbook.

Intercollegiate athletics are offered to both men and women. The women's intercollegiate competition is centered around tennis, basketball, volleyball, and softball. The men's program includes the sports of basketball, tennis, and baseball. Students participating in the intercollegiate program should register for intercollegiate athletics under the activity program.

PHED 1301: Introduction to Physical Fitness and Sport (3:3-0)

This course is designed to provide a comprehensive, introductory course on the foundations of physical education and sport. It will acquaint students with the specialized areas of study, career opportunities and the latest thinking and research in the

field. Emphasis is placed on the role of Physical Education and sport as a whole and the contribution it makes to society.

PHED 1304: Personal/Community Health I (3:3-0)

This course is designed to help improve the health of the students as well as presenting techniques of improvement of total community health. It strives to bring about an inculcation of proper health skills and attitudes by presenting facts and fallacies about health and proper procedures in combating health problems.

PHED 1306: First Aid (3:3-0)

This course is designed to familiarize the student with the methods, techniques and procedures necessary in caring for injuries. Students may receive certification in Red Cross First Aid. Lab Fee: \$20

PHED 1308: Sports Officiating I. (3:3-0)

A course designed to study the rules, rule interpretations and mechanics of officiating, and to develop skills and knowledge required in the officiating of volleyball and basketball.

PHYSICAL EDUCATION ACTIVITY COURSES (1:0-3)

A fee of \$8 is charged for each Health and Physical Education Activity course in which a student is enrolled. (Courses in each activity area must be taken in sequence.)

PHED 1101: Intercollegiate Athletics I

PHED 1102: Intercollegiate Athletics II

PHED 1103: Intercollegiate Athletics III

PHED 1104: Intercollegiate Athletics IV

PHED 1105: Intercollegiate Athletics V

PHED 1106: Intercollegiate Athletics VI

PHED 1107: Beginning Volleyball

PHED 1108: Intermediate Volleyball

PHED 2107: Advanced Volleyball I

PHED 2108: Advanced Volleyball II

PHED 1111: Softball I

PHED 1122: Softball II

PHED 2111: Softball III

PHED 2122: Softball IV

PHED 1112: Jogging/Walking/Fitness

PHED 2112: Advanced Jogging/Walking/Fitness

PHED 1113: Weight Training I

PHED 1114: Weight Training II

PHED 2113: Weight Training III

PHED 2114: Weight Training IV

PHED 1115: Basketball I (Men)

PHED 1116: Basketball II (Men)

PHED 2115: Basketball III (Men)

PHED 2116: Basketball IV (Men)

PHED 1117: Basketball I (Women)

PHED 1137: Basketball II (Women)

PHED 2117: Basketball III (Women)

PHED 2137: Basketball IV (Women)

PHED 1118: Baseball (Men)

PHED 1120: Beginning Golf (Coed)

PHED 1121: Intermediate Golf (Coed)

PHED 2120: Advanced Golf I (Coed)

PHED 2121: Advanced Golf II (Coed)

PHED 1123: Beginning Tennis (Coed)

PHED 1124: Intermediate Tennis (Coed)

PHED 2123: Advanced Tennis I (Coed)

PHED 2124: Advanced Tennis II (Coed)

PHED 1126: Beginning Bowling (Coed)

(Bowling Fee \$60)

PHED 1127: Intermediate Bowling (Coed)

(Bowling Fee \$60)

PHED 2126: Advanced Bowling I (Coed)

(Bowling Fee \$60)

PHED 2127: Advanced Bowling II (Coed)

(Bowling Fee \$60)

PHED 1141: Beginning Aerobics

PHED 1142: Intermediate Aerobics

PHED 2141: Advanced Aerobics I

PHED 2142: Advanced Aerobics II

PHED 1143: Physical Conditioning I

PHED 1144: Physical Conditioning II

PHED 2143: Physical Conditioning III

PHED 1147: Ballet for Physical Education

PHED 1149: Ballet Folklorico for Physical Education

PHYSICS

PHYS 1103: Stars and Galaxies Laboratory (1:0-2)

This course is designed to complement PHYS 1303. The course consists of an observational approach to what can be found and measured in the universe outside of our solar system. Students will be involved in taking observations, collecting data and preparation of written reports. Binoculars, different types of telescopes and other instrumentation will be used. For transferability, contact a program advisor. Prerequisite: PHYS 1311 or concurrent enrollment in PHYS 1311. \$24 lab fee. R

PHYS 1104: Solar System Laboratory (1:0-2)

This course is designed to complement PHYS 1304. This course consists of an observational approach to what can be found and measured in our solar system. Students will be involved in gathering observations, data collection and preparation of written reports. Binoculars, different types of telescopes and other instrumentation will be used. For transferability, contact a program advisor. Prerequisite: PHYS 1312 or concurrent enrollment in PHYS 1312. \$24 lab fee. R

PHYS 1303: Stars and Galaxies (3:3-0)

This course is designed for those students who desire to know more about the universe. The course is based on the study of stars, galaxies and the universe outside of our solar system. The subject matter will be presented in a descriptive manner, with minimal mathematical application. Mastery of this course will give the student a good understanding of how our universe is structured and its progression. For transferability, contact a program advisor. R

PHYS 1304: Solar System (3:3-0)

This course is designed for those students who desire to know more about our solar system. The course is based on the study of our sun, the planets within our solar system and other cosmic entities. The origin of the solar system will also be investigated. The subject matter is presented in a descriptive manner with a minimal degree of mathematical applications. For transferability, contact a program advisor. Prerequisite: R

PHYS 1401: College Physics I (4:3-3)

This is the first semester algebra and trigonometry-based physics course. Topics include mechanics, heat and thermodynamics. Laboratory exercises emphasize measurements, concepts, and the experimental basis of physics. Laboratory portion is integrated with lecture portion. Prerequisite: Credit or registration for MATH 1314 and MATH 1316 or MATH 2412 or their equivalent. \$24 lab fee. R, W, M

PHYS 1402: College Physics II (4:3-3)

This is the second semester algebra and trigonometry-based physics course and is a continuation of PHYS 1401. Topics include electricity, magnetism, light, optics, and modern physics. Laboratory exercises emphasize measurements, concepts, and the experimental basis of physics. Laboratory portion is integrated with lecture portion. Prerequisite: PHYS 1401. \$24 lab fee. R, W, M

PHYS 1405: Elementary Physics I (4:3-3)

This is the first semester physics course designed for non-science majors who need a science laboratory course. The subject matter is presented in a descriptive manner with a low mathematical overview of physics. The student will be introduced on a conceptual level to the principles of mechanics, properties of matter, heat, sound and other related topics. For transferability, contact a program advisor. \$24 lab fee. R, W

PHYS 1407: Elementary Physics II (4:3-3)

This is the second course physics designed for non-science majors and is a continuation of PHYS 1405. The subject matter is presented in a descriptive manner with a low mathematical overview of physics. The student will be introduced on a conceptual level to the principles of electricity, magnetism, light, atomic and nuclear physics, relativity, astrophysics and other related topics. For transferability, contact a program advisor. Prerequisite: PHYS 1405. \$24 lab fee. R, W

PHYS 2425: University Physics I (4:3-3)

This is the first semester calculus-based physics course. Topics include mechanics, heat and thermodynamics. Laboratory exercises emphasize measurements, concepts, and the experimental basis of physics. Laboratory portion is integrated with lecture portion. Prerequisite: MATH 2413. \$24 lab fee. R, W, M

PHYS 2426: University Physics II (4:3-3)

This is the second semester calculus-based physics course and is the continuation of PHYS 2425. Topics include electricity, magnetism, light optics, and modern physics. Laboratory exercises emphasize measurements, concepts, and the experimental basis of physics. Laboratory portion is integrated with lecture portion. Prerequisite: PHYS 2425 and MATH 2414. \$24 lab fee. R, W, M
PHYS 1405: Elementary Physics I (4:3-3)

PSYCHOLOGY

PSYC 2301: General Psychology (3:3-0)

A survey of principles, theories and concepts governing human behavior. Designed to introduce the student to the broad field of psychology. Includes principles of learning, motivation, perception, emotion, personality theory, and adjustment. R

PSYC 2302: Applied Psychology (3:3-0)

A competency based course that teaches techniques of managing behavior and the prevention of problem behaviors in everyday situations. Subject matter and programming skills include using learning principles such as stimulus control, shaping, relaxation training, reinforcement scheduling, and token economies. Examines contrasting therapeutic approaches and the ethics of behavior control. Prerequisites: PSYC 2301. R

PSYC 2308: Child Psychology (3:3-0)

The study of the relationship of the physical, emotional, social, and mental factors in the growth and development of children. Prerequisite: PSYC 2301 or consent of instructor. R

PSYC 2314: Lifespan Growth and Development (3:3-0)

A study of the physical, mental, emotional, moral, and social development of the individual from conception to death. Prerequisite: PSYC 2301 or consent of instructor. R

PSYC 2315: Psychology of Adjustment (3:3-0)

A study of the adjustment problems of normal people. Application of techniques of control of stress and anxiety arising from personal conflicts in home, school, and society. R

PSYC 2319: Social Psychology (3:3-0)

A study of social interaction with emphasis on the principles and theories of dealing with others. Encompasses real-life problems such as prejudice, discrimination, attitudes, social perception, impression formation and knowing ourselves. Prerequisite: PSYC 2301 or consent of instructor. R

READING

READ 0301: Introduction to College Reading Techniques (3:3-0)

This course provides instruction in basic college reading, study, and literal comprehension skills. Special emphasis is placed

on vocabulary building, main ideas and supporting details in short reading passages, text book chapter reading, transitions and patterns of organization, and critical reading techniques. Computer laboratory exercises will supplement reading assignments. Students must make a grade of "A" or "B" to attempt the next course.

READ 0302: College Reading Techniques (3:3-0)

This course applies skills gained in READ 0301, Introduction to College Reading Techniques, to advanced reading and study activities. The course provides instruction in comprehension, vocabulary, listening, general study skills, perceptual accuracy, visual efficiency, and reading rate. Modified individualized instruction with accents of personalization is based on a diagnosis of reading levels and needs. Each student is encouraged to improve overall reading effectiveness. Students must make a grade of "A" or "B" to complete the Basic Reading program.

SOCIOLOGY

SOCI 1301: Introductory Sociology (3:3-0)

It is the aim of this course to give the students an understanding of the culture and the institutions with which they live and to familiarize them with the social processes of society. R, W

SOCI 1306: Social Problems (3:3-0)

Survey and analysis of current social problems. R, W

SOCI 2301: Marriage and the Family (3:3-0)

A sociological analysis of marriage and family relationships based on concepts introduced in SOCI 1301. Areas explored are courtship practices, marriage and family patterns and the family in transition. Prerequisite: SOCI 1301 or approval of instructor. R, W

SOCI 2336: Criminology (3:3-0)

Social dimensions of deviant and criminal behavior; scope of crime; theories of crime and other socially deviant behavior; the role of the police and court system; group and community oriented programs (i.e. rape crisis, battered spouses' centers, and child abuse); study of programs of prevention, control and treatment. R, W

SOCI 2389: Academic Cooperative in Sociology (3:3-4)

Integrates on-campus study with practical experiences in a social science context. In conjunction with class seminars and consultation with the course instructor, each student sets specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisite: SOCI 1301. R, W

SOCIAL WORK

SOCW 2361: Introduction to Social Work (3:3-0)

Explores the philosophy and practice of social work in the United States, survey of the fields and techniques of social work. Introduces the purpose and function of professional organizations, current issues confronting the social work profession, and knowledge of populations targeted for social services. R, W

SOCW 2362: Social Welfare as a Social Institution (3:3-0)

An introduction to the study of modern social work, underlying philosophy and ethics of social work, and the major divisions and types of social work together with their methods and objectives. Explores the current social welfare system and relevant social legislation.

SPANISH

SPAN 1300: Beginning Spanish Conversation I (3:3-0)

This class offers the student opportunities to practice basic conversational skills on topics important to social and career situations through basic practice in comprehension and production of the spoken language. Most of the situations presented in this class can be handled using the present tense or conversational future. This is a good course for students who have been out of a language classroom for a few years, or for those who want to sharpen their listening and speaking skills. Prerequisite: two years high school, or equivalent.

SPAN 1310: Beginning Spanish Conversation II (3:3-0)

This class offers the student opportunities to practice conversational skills learned in 1300 and adds situations which necessitate the use of the past tenses through basic practice in comprehension and production of the spoken language. Prerequisite: SPAN 1300 or equivalent.

SPAN 1411: Beginning Spanish I (4:3-2)

This course teaches fundamental skills in listening comprehension, speaking, reading, and writing. It includes basic vocabulary, grammatical structure, and culture. The present tense verb forms and the conversational future will be practiced throughout the course. The past preterite tense is introduced at the end of the course. This is a course for true beginners and for those who have had only minimal exposure to the language.

SPAN 1412: Beginning Spanish II (4:3-2)

This course continues with the presentation of the fundamental skills in listening comprehension, speaking, reading, and writing learned in 1411 or other basic classes. It guides the student through an increasing use of the past tenses in the semester. This course teaches the structural patterns necessary to convey messages about the past and how to relate them to the present and the future. Much of the reading material will be from Spanish language news sources on the Internet. The student will acquire cultural knowledge through the use of current, real world standard Spanish usage. Prerequisite: SPAN 1411 or equivalent.

SPAN 2306: Intermediate Spanish Conversation (3:3-0)

This class presents opportunities for conversation at the intermediate level through basic practice in comprehension and production of the spoken language. Prerequisite: SPAN 1310 or equivalent.

SPAN 2311: Intermediate Spanish I (3:3-0)

This course emphasized conversation, vocabulary acquisition, reading composition, and culture through review and application of skills in listening comprehension, speaking, reading, and writing. This course provides a study of structural patterns in the Spanish language with emphasis on the contrastive patterns between English and Spanish. The cultural units and readings and listening materials will vary each semester. Prerequisite: SPAN 1412 or equivalent.

SPAN 2312: Intermediate Spanish II (3:3-0)1

This course emphasizes conversation, vocabulary acquisition, reading composition, and culture through review and application of skills in listening comprehension, speaking, reading, and writing. This course provides a study of structural patterns in the Spanish language with emphasis on the contrastive patterns between English and Spanish. The cultural units and readings and listening materials will vary each semester. Prerequisite: SPAN 2311 or equivalent.

SPAN 2313: Spanish for Native Speakers I (3:3-0)

This class emphasizes vocabulary acquisition to help students build the modern vocabulary necessary for participating in the global Spanish community through basic practice in the production of the spoken language. This class will also help native speakers develop the listening skills necessary for determining the need for written accent marks on words.

SPAN 2315: Spanish for Native Speakers II (3:3-0)

This class is a continuation of Spanish 2313 through basic practice in the production of the spoken language. Students will have an opportunity to hear and interact with people from various areas of the Spanish speaking world through the use of the Internet and live interviews. Prerequisite: SPAN 2313 or equivalent.

SPAN 2316: Career Spanish I (3:3-0)

This class presents vocabulary and practice situations that will be encountered in the workplace through basic practice in the production of the spoken language. This course can be offered to a group of students with similar career goals. Prerequisite: SPAN 1412 or SPAN 2313 or equivalent.

SPAN 2317: Career Spanish II (3:3-0)

This is a continuation of SPAN 2316 through basic practice in the production of the spoken language. The focus of the course is to prepare the student to be able to handle conversations with people from around the Spanish speaking world. Prerequisite: SPAN 2316

SPAN 1100: Beginning Spanish Conversation I (1:1-0)

This course is designed to teach people how to be able to get the information necessary for filling out common business forms. The course deals with the differences that prove problematic for English speakers such as correctly identifying the main surname. Prerequisite: one year of high school Spanish or equivalent.

SPAN 1110: Beginning Spanish Conversation II (1:1-0)

This course is designed to give the student the basic conversational and reading skills needed for traveling in a Spanish-speaking country. Prerequisite: SPAN 1411 or equivalent or experience with the language.

SPEECH

SPCH 1311: Introduction to Speech Communication (3:3-0)

An introduction to the theories and practice of oral communication. Emphasis is on the importance of both listening and speaking to help the student develop skills necessary for communication in interpersonal, small group and public speaking situations. R,W

SPCH 1315: Public Speaking (3:3-0)

Research, composition, organization, and delivery of speeches for various purposes and occasions with emphasis on listener analysis and informative and persuasive techniques. (Formerly SPEECH 1663) R,W

SPCH 1318: Interpersonal Communication (3:3-0)

Theories and exercises in verbal and nonverbal communication with focus on interpersonal relationships. R, W

SPCH 1321: Business and Professional Communication (3:3-0)

Theories and practice of speech communication as applied to business and professional situations. Emphasis is on the importance of both listening and speaking to help students develop skills necessary for communication in interpersonal, small group, and public business interactions. R,W

SPCH 1342: Voice and Diction (3:3-0)

Physiology and mechanics of effective voice production with practice in articulation, pronunciation, and enunciation. Introduction to the International Phonetic Alphabet. This is the same course as DRAM 2336 but can be taken for Speech credit. Credit will not be granted for both SPCH 1342 and DRAM 2336. R, W

SPCH 2333: Discussion and Small Group Communication (3:3-0)

Discussion and small group theories and techniques as they relate to group process and interaction. R, W

STUDY SKILLS

STSK 0305: Master Student for TSI (Texas Success Initiative) (3:3-0)

This course is aimed at improving the student's basic skills. It includes student evaluation of study habits; application of effective time management practices; and practice in such essential mechanics as note taking, reading, review, and

preparation for examinations. Students also gain skills designed to improve the consultations they have with their college instructors.

STSK 0306: Master Student for College Success (3:3-0)

This course is aimed at improving the student's basic skills. It includes student evaluation of study habits; application of effective time management practices; and practice in such essential mechanics as note taking, reading, review, and preparation for examinations. Students also gain skills designed to improve the consultations they have with their college instructors.

RESPIRATORY CARE

RSPT 1201: Introduction to Respiratory Care (1:2-2)

An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control and cardiopulmonary resuscitation (CPR). Lab Fee \$24

RSPT 1307: Cardiopulmonary Anatomy and Physiology (3:3-0)

An introduction to the anatomy and physiology of the cardiovascular, renal, and pulmonary system. Includes the terminology used in respiratory physiology. Prerequisite: BIOL 2401.

RSPT 2317: Respiratory Care Pharmacology (3:1-2)

A study of pharmacological principles/practices of drugs which affect the cardiopulmonary systems. Emphasis on classification, route of administration, dosages/calculations, and physiological interactions. Prerequisite: RSPT 1307. Lab Fee \$12

RSPT 1360: Clinical - Respiratory Therapy Technician (3:0-16)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1410. Liability Insurance approximately \$28.

RSPT 1410: Respiratory Care Procedures I (4:3-3)

Provides students with the essential knowledge of the equipment and techniques used in the treatment of pulmonary disease and their clinical application. The following areas are discussed in depth: oxygen therapy, humidity and aerosol therapy, hyperinflation therapy, chest physiotherapy, pulse oximetry, arterial puncture, and interpretation. Lab Fee \$24

RSPT 1411: Respiratory Care Procedures II (4:3-3)

Provides students with the essential knowledge of airway care and mechanical ventilation. Airway care includes indication, techniques, equipment, and hazards and complications. Mechanical ventilation includes indication, initiation, modes, clinical application, management, complications, and weaning. Prerequisite: RSPT 1410. Lab Fee \$24

RSPT 2230: Exam Preparation (2:2-0)

Comprehensive review for selected respiratory care credentialing examinations. Test matrices and exam content areas for selected exams will be presented.

RSPT 2239: Advanced Cardiac Life Support (2:2-0)

A comprehensive course designed to develop the cognitive and psychomotor skills necessary for resuscitation of the adult. Strategies for managing and stabilizing the cardiopulmonary arrested patient will be included.

RSPT 2305: Pulmonary Diagnostics (3:2-2)

The theories and techniques involved in pulmonary function testing diagnostics with emphasis on blood gas theory and analysis, quality control, oximetry, and capnography. Prerequisite: RSPT 2310. Lab Fee \$24

RSPT 2310: Cardiopulmonary Disease (3:3-0)

A discussion of the pathogenesis, pathology, diagnosis, history, prognosis, manifestations, treatment, and detection of cardiopulmonary diseases. Prerequisite: RSPT 1307

RSPT 2353: Neonatal/Pediatric Cardiopulmonary Care (3:3-2)

A study of acute care, monitoring and management as applied to the neonatal and pediatric patient. Lab Fee \$12

RSPT 2361: Clinical - Respiratory Therapy Technician (3:0-16)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

RSPT 2362: Clinical - Respiratory Therapy Technician (3:0-16)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional.

RSPT 2414: Mechanical Ventilation (4:3-2)

Preparation to conduct the therapeutic procedures to achieve adequate, spontaneous, and artificial ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Also included are the indications, complications, and physiologic effects/principles of mechanical ventilation. Prerequisite: RSPT 1411. Lab Fee \$16

RSPT 2425: Cardiopulmonary Diagnostics (4:3-3)

A study of physical, radiologic, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient. Prerequisite: RSPT 2305. Lab Fee \$24

RSPT 2660: Clinical - Respiratory Therapy Technician (6:0-16)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. Direct supervision is provided by the clinical professional. This is a 12 week course during the summer. Prerequisite: RSPT 1360.

SURGICAL TECHNOLOGY

SRGT 1301: Medical Terminology (3:3-0)

Study of the basic structure of medical words including prefixes, suffixes, roots, combining forms, plurals, pronunciation, spelling, and the definitions of medical terms. Emphasis is on building a professional vocabulary required for employment within the allied health field.

SRGT 1505: Introduction to Surgical Technology (5:5-0-0)

Orientation to surgical technology theory, surgical pharmacology and anesthesia, technical sciences, and patient care concepts. Prerequisite: SRGT 1509. A 4-week course.

SRGT 1509: Fundamentals of Perioperative Concepts and Techniques (5:3-6-0)

In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field. \$90 sterile supply pack fee. Student must successfully perform a videotaped practicum demonstration with an 80% proficiency in order to pass this course. A 12-week course.

SRGT 1541: Surgical Procedures I (5:5-0-0)

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1505. An eight-week course.

SRGT 1542: Surgical Procedures II (5:5-0-0)

Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1505. An 8-week course.

SRGT 1560: Clinical – Surgical Technology/Technologist, Introductory (5:0-0-18)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Basic level surgical technology competencies are evaluated. Approximately \$20.00 liability fee. A 12 week course. Prerequisite: SRGT 1505, SRGT 1509.

SRGT 1361: Clinical – Surgical Technology/Technologist, Intermediate (3:0-0-11)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Intermediate level surgical technology competencies are evaluated. An 8-week course. Prerequisite: SRGT 1560.

SRGT 1462: Clinical – Surgical Technology/Technologist, Advanced (4:0-0-13)

A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Advanced level surgical technology competencies are evaluated. An 8-week course. Prerequisite: SRGT 1361.

SRGT 2130: Professional Readiness (1:1-0-0)

Exploration of issues and situations faced as surgical technologists. Topics may include job-seeking skills and written professional portfolios, pros/cons of malpractice insurance, reality shock of employment, coping with issues of death and dying, organ procurement issues, and preparation for national certification. A capstone experience may be included. Prerequisite: SRGT 1541; SRGT 1542. An 8-week course.

SURVEYING

SRVY 1301: Introduction to Surveying (3:2-4)

An overview of the surveying profession. The history of surveying and its impact on the world. Review the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on the surveying procedures and the limitation of errors. Calculation to determine precision and error of closure. Lab fee \$24.

SRVY 1315: Surveying Calculations (3:3-0)

An introduction to the mathematics used in surveying and mapping, including algebra, plane trigonometry, and plane, solid and analytical geometry.

SRVY 1319: Introduction to Geographic Information Systems (GIS) (3:2-4)

A study of the theory of geographic information systems, including conceptual understanding and database development, terms, definitions, classifications, use and client requirements, and prevailing and applicable professional standards. Projects and procedures to establish maps based upon geographic information systems. Lab fee \$24.

SRVY 2305: Geographic Information Systems Applications (3:2-4)

A hands-on course with computer applications providing additional conceptual understanding of geographical information systems and practical applications using a variety of Geographical Information System Software. Lab fee \$24.

SRVY 2309: Computer Aided Mapping (3:2-4)

An intermediate to advanced level course designed to teach the student how to produce a survey map using appropriate software and coordinate geometry. Production of survey maps and plats, civil engineering design drawings and topographic maps utilizing coordinate geometry. Lab fee \$24.