

## CAREER, TECHNICAL, AND OCCUPATIONAL PROGRAMS



**DR. ALICE TYLER MILTON, ASSOCIATE DEAN**  
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### Web Site

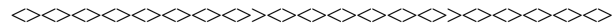
<http://www.lawsonstate.edu/programs/ctop/ctop.html>

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### EDUCATIONAL DEPARTMENTS

- Apparel and Design
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- Barbering
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- Career, Technical, and Occupational Technologies
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- Commercial Foods
- Correctional Education
- Cosmetology
- Drafting and Design Technology
- Electrical Technologies
- Electronics
- Emergency Medical Service
- Fire Science
- Health Professions
- Plumbing
- Radio and Television
- Related Subjects



**Get Ready For An Even Better  
 Challenging Experience . . .**



**ACATT**

*Alabama Center for Advanced Technology and Training*

**Visit the New ACATT Web Site**  
<http://www.acatt.org>

**The Business and Information Technologies  
 Department Future Site**  
 – West Campus – 2005 –

## DEPARTMENT OF BUSINESS AND INFORMATION TECHNOLOGIES

**ACCREDITED BY: ACBSP**  
*Association of Collegiate Business Schools and Programs*



**DR. ALICE TYLER MILTON, ASSOCIATE DEAN**  
*Career, Technical and Occupational Programs*

**CHAIRPERSON**  
*Business and Information Technologies Department*

**SREC COORDINATOR • WEBMASTER**

**Visit The Department Web Site:**  
<http://www.lawsonstate.edu/programs/ctop/bit/bit.html>

**Visit PBL Web Site:**  
[http://www.lawsonstate.edu/programs/bt/pbl/lsc\\_pbl.html](http://www.lawsonstate.edu/programs/bt/pbl/lsc_pbl.html)

**Visit IAAP Web Site:**  
<http://www.lawsonstate.edu/news/iaap.html>

**Visit The Testing Centers Site:**  
<http://www.lawsonstate.edu/testing/vue.html>  
<http://www.lawsonstate.edu/testing/drake.html>

Accounting	Computer Science/Math
A+ Certification	Management and Supervision
Banking and Finance	MicroS. Cert. Sys. Adm. (MCSA)
Business Administration	MicroS. Cert. Sol. Dev. (MCSD)
Business Admin. & Mngt.	MicroS. Cert. Sys. Eng (MCSE)
Business Education	MicroS. Cert. Prof. (MCP)
Cert. Novell Adm. (CNA)	MicroS. Off. Specialist
Cert. Novell Eng. (CNE)	Office Administration
Cisco Cert. Net/Assc. (CCNA)	Office Administration - Legal
Cisco Cert. Net/ Prof. (CCNP)	Office Administration - Medical
Computer Science/Business	Real Estate

**MISSION:** The mission of the Business and Information Technologies Department primarily is to organize and provide instruction in the areas of business for individuals in the metropolitan county. To accomplish this mission, the Department offers:

- Programs to provide students with specialized training and skills that will enable them to become employable and competent in their discipline.
- Programs to provide students with skills that will allow them to matriculate successfully in a four-year college or university setting.
- Programs to provide knowledge and skills that will prepare students to function as intelligent citizens and consumers in a business-oriented society.
- Programs that meet the special needs of the community.

Secondary to the Business Technologies Department's principal focus is that of providing community service. The services performed by the Department vary to seek and achieve the objectives of the Department. Recently, our students placed nationally in their community services' efforts. Moreover, they placed nationally in their belief of the American Enterprise System, Multimedia Presentations, and Business Law. This experience alone has provided them growth in their vocation.

The Business and Information Technologies Department has become stronger each year because of the desire to be the best of the best, which makes the student highly marketable in their endeavors.

The Department's mission and objectives reflect the application of Lawson State's overall mission to the field of Business. Specifically, the Department's certificate and degree programs allow students to gain entry-level employment in industry, business, or government; and/or to transfer to senior institutions. The course offerings to accomplish these two objectives include numerous courses which also allow persons employed in business to learn new skills or refresh existing skills. Persons desiring noncredit, personal enrichment may audit any course offering which compliments their personal proficiency.

The Business Technologies Department at Lawson State Community College specializes in providing a state-of-the-art, highly marketable systems education. Our goal is to provide students with a strong foundation upon which they can continue to build as the profession changes. Students play an important and active role in the life of the Department; they are valued members of the Lawson State family. Students work closely with faculty and often work with them several times a week. Each student is treated as an important individual, with unique goals, drives, and needs.

The Department offers a balance between technical and managerial issues through a strong emphasis on business applications. The curriculum provides students with a broad understanding of business, a competence in business computer programming, and knowledge of information technology infrastructure.

Information Technology is undergoing great changes as technology advances and the need for computer software increases. Simply providing students with skills necessary to

enter the computing profession is not sufficient. Because of this, our students are given a solid theoretical foundation with knowledge of information technology infrastructure.

Upon completion, graduates of the Business Technologies Department are prepared to continue their education at a four-year institution or apply for entry-level positions in industry. Excellent career opportunities exist for students in the expanding field of Information Technology including programming, systems analysis and design, personal networking, networking, and systems integrations. Managing these technologies to help solve business problems provides students concentrating in information systems a wide variety of career opportunities. According to the Occupational Handbook, 1996 - 2006, the Business Technologies Department can train individuals in 10 of the 30 fastest growing occupations. According to Occupational Outlook Handbook 2000 - 2001, the Business Technologies Department can train individuals in over 100 occupations.

Come and join the faculty, staff, and students in the Business Technologies Department at Lawson State Community College. Let up help you prepare you to become marketable.

**BUSINESS AND INFORMATION TECHNOLOGIES PARTNERSHIPS/ORGANIZATIONS**



**International Association of Administrative Professionals®**

- Authorized Drake Testing Center  
Authorized VUE Testing Center  
*Phone Number: 205-929-6448*
- Member of SREC (Southern Regional Electronic Campus) —Online Courses
- Authorized Academic Training Partner (IT Academy Pro Plus—Microsoft)
- ACBSP Accreditation
- SREB – Distance Learning
- Novell Education Academic Partner (NEAP)
- Active Kappa Beta Delta Honor Society (Accredited Business Programs)
- Active Phi Beta Lambda Chapter (All Business Technologies Students)
- Active Association of Information Technology Professionals (Computer Science Students)
- National Coalition of Advanced Technology Centers
- IAAP – Administrative Professionals Organization (Office Administration Students)
- VITA e-filing Site (Income Taxes)



**Join PBL Today!!**

*Phi Beta Lambda* is an business organization that has a chapter in the **Business and Information Technologies Department**. The objective is to develop strong, aggressive leadership so that future businessmen and women may participate more effectively in the business community life of which they are a part. *Phi Beta Lambda* members learn to lead and participate in group discussions, preside at meetings and conferences, work on committee assignments, engage in group problem conferences, and work in other activities that contribute to the development of desirable leadership qualities.

**Ms. Alfreda King, Advisor -205-929-6460**  
*A. G. Gaston Building/East Campus*

**ASSOCIATE IN ARTS DEGREE  
Business Administration**

	<b>Sem. Hr(s)</b>
<b>Area I – Written Composition</b>	<b>6</b>
• ENG 101 English Composition I	3
• ENG 102 English Composition II	3
<b>Area II – Humanities &amp; Fine Arts</b>	<b>12</b>
• SPH 107 Fund. Public Speaking	3
• ENG 251 American Literature I	6
ENG 252 American Literature II / <b>OR</b>	
• ENG 261 English Literature I	6
ENG 262 English Literature II	
<b>Humanities &amp; Fine Arts Electives:</b>	<b>3</b>
<i>Choose Art, Art History, Foreign Languages, Humanities, Music, Philosophy, Religion, Theater, or Dance from STARS.</i>	
<b>Area III – Natural Science &amp; Mathematics</b>	<b>11</b>
• BIO 101/102 Intro to Biology I – II W/Lab / <b>OR</b>	8
<i>Other disciplines accepted in the Natural Sciences include: Astronomy, Chemistry, Geology, Physical Geography, Earth Science, Physics, and Physical Science.</i>	
• MTH 112 Pre-Calculus Algebra or higher level Mathematics from STARS	3
<b>Area IV – History, Social, &amp; Beh. Sciences</b>	<b>12</b>
• HIS 101/102 Western Civilization I – II <b>OR</b>	6
HIS 121/122 World History I – II	6
• PSY 200 General Psychology / <b>OR</b>	3
SOC 200 Intro to Sociology	3
• ECO 231 Principles of Macroeconomics	3
<b>Area V – Pre-Professional/Elective Courses</b>	<b>17-23</b>
• Two 1-hour PED activity courses or one 3-hour HED course	2-3
• Students may be required to take Reading 114, Critical Reading for College (2 hours) based on placement test scores.	2
• CIS 146** Microcomputer Applications**	3 -S2
• BUS 241 Principles of Accounting I	3 -S1
• ECO 232 Principles of Microeconomics	3 -S4
• BUS 150 Introduction to Business	3 -S2
• Electives (ACC, BUS, CIS, ECO, OAD)	6*
<b>TOTAL REQUIRED HOURS FOR DEGREE</b>	<b>62-64</b>
<b>S1</b> - First Semester	<b>S3</b> - Third Semester
<b>S2</b> - Second Semester	<b>S4</b> - Fourth Semester

- \*Elective(s) and/or substitutions must be approved by the area advisor
- \*\*CIS 130 or prior computer experience that is equivalent to CIS 130 is required
- PSY 100 is a prerequisite for this program
- WorkKeys pre-assessment is required
- BUS 210 (Introduction to Accounting) is recommended as a prerequisite for BUS 241

**ASSOCIATE IN ARTS DEGREE  
Business Education**

	<b>Sem. Hr(s)</b>
<b>Area I – Written Composition</b>	<b>6</b>
• ENG 101 English Composition I	3
• ENG 102 English Composition II	3
<b>Area II – Humanities &amp; Fine Arts</b>	<b>12</b>
• SPH 107 Fund. Public Speaking	3
• ENG 251 American Literature I	6
ENG 252 American Literature II / <b>OR</b>	
• ENG 261 English Literature I	6
ENG 262 English Literature II	
<b>Humanities &amp; Fine Arts Electives:</b>	<b>3</b>
<i>Choose Art, Art History, Foreign Languages, Humanities, Music, Philosophy, Religion, Theater, or Dance from STARS.</i>	
<b>Area III – Natural Science &amp; Mathematics</b>	<b>11</b>
• BIO 101/102 Intro to Biology I – II W/Lab / <b>OR</b>	8
<i>Other disciplines accepted in the Natural Sciences include: Astronomy, Chemistry, Geology, Physical Geography, Earth Science, Physics, and Physical Science.</i>	
• MTH 112 Pre-Calculus Algebra or higher level Mathematics from STARS	3
<b>Area IV – History, Social, &amp; Beh. Sciences</b>	<b>12</b>
• HIS 101/102 Western Civilization I – II / <b>OR</b>	6
HIS 121/122 World History I – II	6
• PSY 200 General Psychology / <b>OR</b>	3
SOC 200 Intro to Sociology	3
• ECO 231 Principles of Macroeconomics	3
<b>Area V – Pre-Professional/Elective Courses</b>	<b>17-23</b>
• Two 1-hour PED activity courses or one 3-hour HED course	2-3
• Students may be required to take Reading 114, Critical Reading for College (2 hours) based on placement test scores.	2
• CIS 146** Microcomputer Applications	3 -S2
• CIS 147 Adv. Microcomputer Apps.	3 -S3
• ECO 231 Principles of Macroeconomics	3 -S4
• Electives (ACC, BUS, CIS, ECO, OAD)	9*
<b>TOTAL REQUIRED HOURS FOR DEGREE</b>	<b>62-64</b>
<b>S1</b> - First Semester	<b>S3</b> - Third Semester
<b>S2</b> - Second Semester	<b>S4</b> - Fourth Semester


- \*Elective(s) and/or substitutions must be approved by the area advisor
- \*\*CIS 130 or prior computer experience that is equivalent to CIS 130 is required
- PSY 100 is a prerequisite for this program
- WorkKeys pre-assessment is required
- BUS 210 (Introduction to Accounting) is recommended as a prerequisite for BUS 241











**Mr. Mark Whigham, Advisor**  
**Ms. Margaret Robinson, Co-Advisor**  
**A. G. Gaston Building/East Campus**  
**205-929-2023 / 205-929-2098**

**Association of Information Technology Professionals** is the professional association comprised of career minded individuals who seek to expand their potential—employers, employees, managers, programmers, and many others. The organization seeks to provide avenues for all their members to be teachers as well as students and to make contacts with other members in the IT field, all in an effort to become more marketable in rapidly changing, technological careers. The organization is comprised of computer science students.

**Office Administration**

<b>General Studies Courses</b>		<b>Sem. Hr(s)</b>
• ENG 101	English Composition I	3
• SPH 107	Fundamental of Public Speaking	3
• CIS 146**	Microcomputer Applications	3
• CIS 147	Adv. Microcomputer Apps.	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>
<b>Field of Concentration Courses</b>		<b>45</b>
• ACC 150****	Computerized General Ledger	3 -S3
• BUS 150	Business Mathematics	3 -S1
• BUS 215	Business Communications	3 -S2
• BUS 241***	Principles of Accounting I	3 -S1
• BUS 246	Acct. on the Microcomputer	3 -S4
• BUS 263	Legal/Social Env. of Business	3 -S2
• OAD 130	Electronic Calculations	3 -S1
• OAD 125	Word Processing	3 -S1
• OAD 200	Machine Transcription	3 -S4
• OAD 203	Secretarial Office Procedures	3 -S4
• OAD 230	Electronic Publishing	3 -S4
• OAD 240	CPS Review (Certified Prof. Sec.)	3 -S2
• Electives (ACC, BUS, CIS, OAD)		9*
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>57</b>



The Department has partnered with Drake Testing Center  
 For More Information, Call 205-929-6448

**Office Administration – Legal Technology**

<b>General Studies Courses</b>		<b>Sem. Hr(s)</b>
• ENG 101	English Composition I	3
• SPH 107	Fundamental of Public Speaking	3
• CIS 146**	Microcomputer Applications	3
• CIS 147	Adv. Microcomputer Apps.	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>
<b>Field of Concentration Courses</b>		<b>45</b>
• ACC 150****	Computerized General Ledger	3 -S3
• BUS 150	Business Mathematics	3 -S1
• BUS 215	Business Communications	3 -S2
• BUS 241****	Principles of Accounting I	3 -S1
• BUS 246	Acct. on the Microcomputer	3 -S4
• BUS 263	Legal/Social Env. of Business	3 -S2
• OAD 130	Electronic Calculations	3 -S1
• OAD 125	Word Processing	3 -S1
• OAD 201	Legal Terminology	3 -S2
• OAD 202	Legal Transcription	3 -S4
• OAD 203	Legal Office Procedures	3 -S4
• OAD 230	Electronic Publishing	3 -S4
• OAD 240	CPS Review (Certified Prof. Sec.)	3 -S4
• Electives (ACC, BUS, CIS, OAD)		6*
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>57</b>

**Office Administration – Medical Technology**

<b>General Studies Courses</b>		<b>Sem. Hr(s)</b>
• ENG 101	English Composition I	3
• SPH 107	Fundamental of Public Speaking	3
• CIS 146**	Microcomputer Applications	3
• CIS 147	Adv. Microcomputer Apps.	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>
<b>Field of Concentration Courses</b>		<b>45</b>
• ACC 150****	Computerized General Ledger	3 -S3
• BIO 120	Medical Terminology	3 -S2
• BUS 150	Business Mathematics	3 -S1
• BUS 215	Business Communications	3 -S2
• BUS 241****	Principles of Accounting I	3 -S1
• BUS 246	Acct. on the Microcomputer	3 -S4
• BUS 263	Legal/Social Env. of Business	3 -S2
• OAD 130	Electronic Calculations	3 -S1
• OAD 125	Word Processing	3 -S1
• OAD 212	Medical Transcription	3 -S4
• OAD 214	Medical Office Procedures	3 -S4
• OAD 230	Electronic Publishing	3 -S4
• OAD 240	CPS Review (Certified Prof. Sec.)	3 -S2
• Electives (ACC, BUS, CIS, OAD)		6*
<b>TOTAL HOURS REQUIRED FOR CERTIFICATE</b>		<b>57</b>



**INDUSTRY CERTIFICATES**

**Updates are often with Industry Certifications, please visit the various Web sites for updates:**

**A+ CERTIFICATION** - The CompTIA A+ certification is the industry standard for validating vendor-neutral skills expected of an entry-level computer technician.

Those holding the A+ certification have a broad base of knowledge and competency in core hardware and operating system technologies including installation, configuration, diagnosing, preventive maintenance and basic networking.

Every business uses computers and skilled technicians are a necessity. A+ opens the door to an exciting career in computer technology at an affordable price. A+ certification is the perfect launch pad into other more challenging careers in information technology.

- CIS 267 Computer Hardware Problem Deter. 3
- CIS 278 Computer Operating Systems 3

<http://www.comptia.com/certification/a/default.asp>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 6**



**CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)** – The CCNA certification (Cisco Certified Network Associate) indicates a foundation in and apprentice knowledge of networking. CCNA certified professionals can install, configure, and operate LAN, WAN, and dial access services for small networks (100 nodes or fewer), including but not limited to use of these protocols: IP, IGRP, Serial, Frame Relay, IP RIP, VLANs, RIP, Ethernet, Access Lists.

[http://www.cisco.com/en/US/learning/le3/le2/le0/le9/learning\\_certification\\_type\\_home.html](http://www.cisco.com/en/US/learning/le3/le2/le0/le9/learning_certification_type_home.html)

**CISCO CERTIFIED NETWORK PROFESSIONAL (CCNP)** The CCNP certification (Cisco Certified Network Professional) indicates advanced or journeyman knowledge of networks. With a CCNP, a network professional can install, configure, and troubleshoot local and wide area networks for enterprise organizations with networks from 100 to more than 500 nodes. The content emphasizes topics such as security, converged networks, quality of service (QoS), virtual private networks (VPN) and broadband technologies.

[http://www.cisco.com/en/US/learning/le3/le2/le37/le10/learning\\_certification\\_type\\_home.html](http://www.cisco.com/en/US/learning/le3/le2/le37/le10/learning_certification_type_home.html)

**Professional Courses Required:**

- |                    |                     |
|--------------------|---------------------|
| CIS 161 – Cisco I  | CIS 163 – Cisco III |
| CIS 162 – Cisco II | CIS 164 – Cisco IV  |

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 3-12**

**CERTIFIED NOVELL ADMINISTRATOR (CNA)** – CNAs provide companies direct support for software users in various work environments including professional offices and small businesses, work groups or departments, and corporate information services (IS).

<http://www.novell.com/training/certinfo/cna>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 3**



**CERTIFIED NOVELL ENGINEER (CNE)** – Your CNE training gives you a wide variety of network support skills that allow you to keep your company's network running efficiently - with less downtime. As a CNE, you solve advanced company-wide support problems and high-level network problems. You perform planning, installation, configuration, troubleshooting and upgrade services for networks.

<http://www.novell.com/training/certinfo/cne/>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 24**



**MICROSOFT CERTIFIED SYSTEMS ADMINISTRATOR (MCSA)** – The new Microsoft Certified Systems Administrator (MCSA) on Microsoft Windows® 2000 credential will advance your career by ensuring you have the skills to successfully manage and troubleshoot system environments running on the Windows 2000 operating system.

<http://www.microsoft.com/traincert/mcp/mcsa/default.asp>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 12**



**MICROSOFT CERTIFIED SOLUTION DEVELOPER (MCSA)** – The new Microsoft Certified Solution Developer (MCSA) for Microsoft .NET certification is the premier credential for lead developers who design and develop leading-edge enterprise solutions with Microsoft development tools, technologies, platforms, and the Microsoft .NET Framework.

<http://www.microsoft.com/traincert/mcp/mcsd/default.asp>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 12**



**MICROSOFT CERTIFIED SYSTEMS ENGINEER (MCSE)** – The Microsoft Certified Systems Engineer (MCSE) on Microsoft Windows® 2000 credential is the premier certification for professionals who design and implement the infrastructure for business solutions based on the Microsoft Windows 2000 platform and Microsoft .NET Enterprise Servers.

<http://www.microsoft.com/traincert/mcp/mcse/default.asp>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 18**

**MICROSOFT OFFICE SPECIALIST (OFFICE SPECIALIST)** – The premier Microsoft desktop certification, that is a globally recognized standard for demonstrating desktop skills. The Office Specialist program is helping meet the demand for qualified and knowledgeable people in the modern workplace.

<http://www.microsoft.com/traincert/mcp/officespecialist/default.asp>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 9**



**ORACLE – DATABASE ADMINISTRATOR (DBA)** – Databases are at the foundation of all modern businesses. They are used to keep track of the finances, inventories, customers, and most recently used in the accelerating area of e-business. The important and critical job of managing the databases for a company is the job of the Database Administrator or DBA. With the fast growth of e-commerce, knowledgeable DBAs are scarce and are currently in high demand by companies across the state. This certificate is designed to provide an opportunity to establish a basic foundation in the field of database administration for employment in commercial, industrial, and government institutions. Lawson State is a member of the Oracle Academic Initiative.

<http://www.oracle.com>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 15**




**Oracle – Database Developer** – This certificate prepares students for job entry in database fields including database applications development. Students learn skills necessary for design, development and maintenance of comprehensive relational databases for corporations and organizations. Graduates may seek positions as database developers, database programmers and database consultants. An internship is provided with this degree to allow work experience in database technologies. Lawson State is a member of the Oracle Academic Initiative.

<http://www.oracle.com>

**TOTAL REQUIRED HOURS FOR INDUSTRY CERTIFICATE 15**

**THE BUSINESS AND INFORMATION TECHNOLOGIES DEPARTMENT**

Specializes in



**CNA Certified Novell Administrator**

**CNE Certified Novell Engineer**

**DEPARTMENT OF BUSINESS AND INFORMATION TECHNOLOGIES**

*New Partnership*



*The Center Specializes in the Following:*

**Call Center Industry Advisory Council Certification - (CIAC)** Established in response to the need for an objective third party to establish and maintain industry-recognized competency standards for individuals that lead, manage, and work in call centers.

**EAN-UCC XML Fundamentals Certification** - provides the tools and services that speed the process by which businesses realize the true economic value of their investment in eBusiness standards.

**For More Information: Call 205-929-6448**

**DEPARTMENT OF BUSINESS AND INFORMATION TECHNOLOGIES**

*New Partnership*




*The Center Specializes in the Following:*

Exams for Microsoft, Cisco, CompTIA, IBM, Novell, NCLEX, The American College, NASD, the UK Teacher Training Agency and many other testing programs.

**For More Information: Call 205-929-6448**

**BUSINESS AND INFORMATION TECHNOLOGIES DEPARTMENT**

**Is An Official**



The Microsoft IT Academy Program supports academic institutions in developing a highly trained global workforce for the 21st century. From the desktop to networking and programming, students and employers worldwide look to Microsoft IT Academies for the latest technologies, in-demand skills, and the assurance of the Microsoft quality standard.

## DEPARTMENT OF HEALTH PROFESSIONS

**ACCREDITED BY:**  
*Alabama Board of Nursing*  
*National League for Nursing Accrediting Commission*



**Shelia Marable, ABD; Chairperson**  
**Health Professions**

**Visit Our Web Site:**

**<http://www.lawsonstate.edu/programs/ctop/nur/health.htm>**

Generic Program	Nurse Assistant
Home Health Aide	Nursing Education/General
Mobility Program	

The mission of the Associate Degree Nursing Program within the Department of Health Professions is to prepare individuals in the art of caring in a high touch and high technology learning environment to be employed in the community as registered nurses.

The Associate Degree Nursing Program consists of a combination of general education courses and nursing courses. Basic needs, as identified by Maslow, threats to needs, and the nursing process are the major themes used to develop content with the curriculum. Nursing courses include a classroom component where a variety of methodologies are used to assist the student to identify scientific principles in nursing. A clinical component is also included to assist the student to apply the scientific principles to meet individual client's needs. Guided clinical experiences are offered in hospitals, health agencies, and selected community agencies.

The Associate Degree Nursing Program consists of five (5) sequential semesters. In order to progress to another nursing course, the student must earn a "C" or better in classroom and "Satisfactory" in clinical. Students not satisfying these requirements will fail to progress to the next nursing course. However, the student may be readmitted to repeat the failed

course. Readmission is allowed only once during the entire nursing program.

There are two alternate admission procedures in the Department of Health Professions. The first is designed for students without any previous nursing experiences. The class is admitted in the Fall Semester (Generic Nursing Program). Throughout the program, general education courses are provided with patient care experience in the hospitals and community-based agencies.

The second is designed with an advanced placement option for Licensed Practical Nurses (LPN) with a minimum of 14 hours of college credits in required general education courses. The prospective student is given recognition for previous nursing knowledge and skills through assessment tests (Excelsior Tests, credit by Pharmacology National Exam and Clinical Skills Evaluation). This prior learning is reflected by awarding nursing credit hours. The class is admitted in the Spring Semester (Advanced Placement Mobility Program) and consists of four (4) sequential semesters.

Upon successful completion of the program in nursing, graduates are eligible to apply to write the National Council Licensure Examination Registered Nurse (NCLEX-RN). The program of nursing is approved by the Alabama Board of Nursing and accredited by the National League for Nursing Accrediting Commission.

### Application Procedures

Students are admitted to the Nursing Program without discrimination in regards to age, creed, marital status, race, gender, or disabilities with reasonable accommodations. Moreover, the following must apply:

- The applicant must be admitted to Lawson and currently enrolled as a regular student.
- The COMPASS Test is required of all entering freshmen whose ACT results are below 20.

*If the COMPASS is taken and indicates that there is a deficiency in any area tested, the course(s) must be taken prior to registering for general education courses. Remedial courses must be passed with a "satisfactory" grade. All transfer applicants must have a cumulative grade point average or 2.0 on a 4.0 scale to be accepted into the program. Only grades of "C" or better will be accepted. All nursing courses attempted must have a satisfactory grade of "C" or better.*

- The applicant may submit scores on the Nursing Entrance Test (NET) or the recent high school graduate may submit scores on the ACT (within two years of graduation). The NET is given each semester with the exception of the Summer Semester. Deadline for application is one day prior to final NET exam day in May of each school year. Pre-registration for taking the NET is made through the Department of Health Professions. A minimum score of 50 in both Reading Comprehension and Essential Math Skills on the NET or 20 on the ACT is required for consideration.
- The applicant must successfully complete the following pre-requisite courses prior to fall semester:

- BIO 103 Principles of Biology I w/lab
- ENG 101 English Composition I
- MTH 100 Intermediate Algebra

### **Requirements for Review by Department of Health Professions' Admissions Committee**

The following are the requirements for review by the Department of Health Professions' Admissions Committee:

- Meet all application requirements.
- Be admitted to the college as a regular full-time student.
- Have all deficiencies removed (i.e., required remedial courses, no grades below "C").
- Have in the Office of Admissions and Records a high school transcript and transcripts from all other institutions where college work has been attempted. A copy of all college transcripts must also be sent to the Department of Health Professions.
- Have a minimum score of 50 in both Reading Comprehension and Essential Math Skills on the NET of 20 on the ACT for recent high school graduates.

### **Selection and Notification**

The following are the selection and notification process:

- The Nursing Program admits annually in the fall semester. The number will be determined by the availability of space.
- Students are selected on a basis of test scores, and completion of requirements. In case of ties, grade point average and number of courses taken at LSCC will become the deciding factors.
- Five (5) alternates may be selected to fill any last minute vacancies.
- Department of Health Professions will review all applicants for completeness of requirements and notify students selected for admission.
- Along with the notification of acceptance, students will receive information in reference to registration, ordering of uniforms, and physical examination.

Students selected must respond in writing confirming acceptance within ten (10) days. A student who fails to respond may forfeit his/her place in the class. Nursing student shall comply with legal, moral and legislative standards that determine acceptable behavior of the registered nurse. It is important for prospective nursing students to know about the Alabama Board of Nursing's regulations on the review of candidates for eligibility for initial and continuing licensure. There will be questions on the application for Licensure as a Registered Nurse by Examination which ask:

- Have you ever been arrested or convicted of a criminal offense other than a minor moving traffic violation?
- Have you, within the last 5 years, abused drugs/alcohol or been treated for dependency to alcohol or illegal chemical substances?
- Have you, ever been arrested or convicted for driving under the influence of drugs/alcohol?
- Have you, within the last 5 years, received inpatient or outpatient treatment or been recommended to seek

treatment for mental illness? If you answer "YES: to either question, send appropriate documents identified on the instruction sheets.

- Have you ever had disciplinary action or is action pending against you by any state board of nursing? If YES, have certified documents sent from the licensing agency to the Alabama Board of Nursing.
- Have you ever been placed on a state AND/OR federal abuse registry?
- Have you ever been court-martial/disciplined OR administratively discharged by the military?

If YES, documentation should accompany the application for licensure by examination form.

### **Essential Performance Criteria**

The applicant must be able to demonstrate the essential performance criteria for nursing students with or without reasonable accommodations. All admissions are contingent upon one's ability to demonstrate the essential performance criteria delineated for nursing students with or without reasonable accommodations. In order to be admitted to and to progress in the nursing education program, a student must possess a functional level of ability to perform the duties required of a registered nurse with or without reasonable accommodations. Those abilities include but are not limited to:

- The ability to satisfactorily perform cardiopulmonary resuscitation (infant, child, adult). The ability to observe and discern subtle changes in the physical conditions and the milieu (example: monitors, skin colors).
- The ability to visualize different color spectrums and read small print (example: bright red drainage as opposed to serous drainages and reading a thermometer).
- The ability to interpret monitoring devices to distinguish muffled sounds heard through the stethoscope and to hear high and low frequency sounds produced by the body and the milieu (example: heart sounds, blood pressure sounds and telephones).
- The ability to detect body changes or vibrations (example: palpate pulses or nodules).
- The ability to coordinate fine and gross motor movements with hands in handling small, delicate equipment (example: giving injections, starting IV's percussions).
- The ability to coordinate eye and hand movements (example: releasing a blood pressure cuff valve while observing the blood pressure gauge.)
- The ability to respond rapidly to emergency situations and maneuver in small areas.
- The ability to engage in two-way communication and interact effectively with others, verbally and in writing, from a variety of social, emotional, cultural, and intellectual backgrounds.
- The ability to comprehend readings and to write legibly (example: documenting on patient records).
- The ability to send a message(s) to the receiver and interpret the feedback appropriately (example: receiving telephone orders from a physician or obtaining history from a patient).
- The ability to turn, transfer, assists with lifting or lift and carry patients and/or objects (exert up to 50 lbs. of force).

- The ability to demonstrate satisfactory performance on written examinations.
- The ability to correctly perform mathematical computations (example: drug calculations).
- The ability to perform complete Head-to-Toe physical assessment.
- The ability to maintain balance from any position.
- The ability to demonstrate a healthy attitude that is age appropriate and congruent with the local and cultural norms (example: anticipatory guidance).
- The ability to make decisions utilizing a critical thinking process (example: prioritize needs).
- The ability to satisfactorily achieve the program objectives.
- The ability to understand and follow policies and procedures of the college and clinical agencies.
- The ability to understand that posing a direct threat to others is unacceptable and subjects one to discipline.

No recommendation is made or implied with regard to the level of reading or writing required for this program. This is an academic matter that will be discussed with the student after administration of the college placement test and conference with a counselor or advisor.

The faculty reserves the right to amend and augment this listing if, in their professional judgment, the safety of the student or others in the instructional setting is in jeopardy.

Every effort is made to create a learning environment similar to the actual workplace; however, due to the wide range of essential standards of each agency, Lawson State Community College cannot predict all the essential functions as identified by various employers. The skills identified on this form are those, which the instructor/faculty/college deems are necessary for participation in the program. No representation regarding industry standards is implied. Similarly, any reasonable accommodations made for you are determined and apply only to Lawson State Community College for student participation in the program of study. Business/industry standards and/or accommodations may vary.

### Transfer Students

Students transferring into the Associate Degree Nursing Program must meet requirements for admission to the program. Only those equivalent General Education and Nursing Courses taken at the other institutions and passed with a "C" or better will be applied toward completion of the program. Nursing courses must have been taken within the transferring year. All nursing courses attempted must have been successfully completed with a minimum grade of "C". Admission is based upon availability of space. A minimum of 22 semester hours of nursing courses must be completed at Lawson State Community College.

### Re-Admission to the Associate degree Nursing Program

The Department of Health Professions honors an "Out-of-Sequence Policy" for students who, for academic, personal or financial reason, must drop out of the nursing sequence. A student who drops under the "Out-of-Sequence" may be readmitted to the ADN Program within a period of two years under the criteria of the first admission. Students out more than

two years will be required to meet current criteria and program updates at the time of readmission. Graduation requirements must be fulfilled within five years of entry into the program. Upon re-entry to the nursing sequence, the returning students must validate proficiency in the critical behaviors required of students at that sequence level and previous clinical critical skills. Readmission due to failure of a nursing course is allowed only once during the entire nursing program.

### Course Progression

In order to progress in the Associate Degree Nursing Program, the students are expected to meet the following requirements:

- Maintain a grade of "C" or better in the classroom component and an "S" (Satisfactory) in the clinical component of each course. Student with a grade of less than a "C" or and "U" (Unsatisfactory) in clinical will be required to repeat the entire nursing course before continuing the program sequence.
- Demonstrate competence in calculating drug dosages at 90% in NUR 241. Three attempts will be allowed to achieve a passing score of 90%. Failure to achieve the passing score will result in failure of the course regardless of other course grades.
- Write Educational Resources INC. (ERI) Comprehensive Achievement Profiles throughout the program of study.
- Maintain legal, moral, legislative standards, which determine acceptable behavior of a registered nurse.
- Complete all Level I course requirements with a cumulative grade point average of 2.0 in order to progress to Level II.
- Possess a functional level of ability to perform duties required of a registered nurse with or without reasonable accommodations.

### Admission Through the Advance Placement Mobility Program

Student must hold a current Alabama License to practice as a Licensed Practical Nurse and have one year of nursing experience. The following must be adhered to:

- The applicant must be admitted to the College as a regular student.
- Transcripts from high school and postsecondary education institutions must be submitted to the Admission Office for review. All transfer applicants must have a cumulative grade point average of 2.0 on a 4.0 scale to be accepted into the program. Only grades of "C" or better will be accepted. All freshman students must complete the COMPASS Test and register for appropriate general education courses based on the results of the CPT.
- Successfully complete the following pre-requisite course prior to spring semester:
  - BIO 103 Principles of Biology
  - BIO 201 Human Anatomy & Physiology  
(*must have been taken within last 5 years*)
  - ENG 101 English Composition
  - MTH 100 Intermediate Algebra

Write Excelsior Examination to challenge NUR 110 for six (6) credit hours. To receive credit for the course, the applicant must pass the following examinations as indicated:

<u>Excelsior Examination</u>	<u>Passing Grade</u>
- Fundamentals of Nursing	(403) C
- Clinical Skills Performance (LSCC Lab)	Satisfactory

- Application packets and information for the Excelsior Exam may be obtained from the Department of Health Professions.
- Applications must be submitted by November 15<sup>th</sup> for spring semester enrollment of the school year.
- Credit by examination NUR 241, Basic Pharmacology (1 Credit Hour)

### Graduation

All students must satisfy the specific requirements for the Association in Applied Science Degree as outlined in the Student Catalog 2003-2006. However, provisions are made for nursing students to document that content completion of institutional course requirements have been met.

- Each student must complete a minimum of 22 semester hours of nursing courses at the college.
- Each student must maintain a minimum of a 2.0 grade point average, with at least a "C" in each course presented for the Associate in Applied Science Degree.

### **PROGRAM OUTCOMES**

The Department of Health Professions through its associate degree nursing program is committed to prepare a graduate to function in the role of a registered nurse. The program outcomes developed by the faculty are consistent with the mission of the college, the expected roles of the practice setting and the competencies and roles outlined by the Council of Associate Degree Programs. The program of learning is designed to enable a graduate to:

1. Provide therapeutic nursing interventions to individuals /groups of individuals using knowledge from the humanities, the biological, social, and behavioral sciences to assist in health promotion, health maintenance, health, restoration, or to enable a peaceful death.
2. Communicate effectively using written, verbal, and information technological skills.
3. Utilize the nursing process as a framework for critical thinking when caring for culturally diverse individuals and groups of culturally diverse individuals at various developmental stages.
4. Utilize human caring and relationship skills in the management of nursing care for individuals and groups of individuals and groups of individuals in multiple health care settings including community-based settings.
5. Utilize leadership skills and principles of management when assessing, organizing, planning, and delegating care of individuals and/or group of individuals.
6. Collaborate with health care team members in providing health teachings to individuals and/or groups of individuals.

7. Apply research findings when caring for culturally diverse individuals or groups of individuals.
8. Assume responsibility and accountability for professional growth, thus applying ethical/legal principles consistent with those established by the profession and the nurse practice act.

**Written:** September 1969  
**Reviewed:** Yearly  
**Revised:** 1973, 1982, 1984, 1986, 1987, 1993, 1999, 2000, 2001, and 2002

### **VISIT LAWSON STATE'S WEB SITE FOR IMPORTANT DATES AND UPDATES**

#### **Nursing Events:**

<http://www.ls.cc.al.us/calendars/semesters.html>

#### **Health Professions Home Page:**

<http://www.lawsonstate.edu/programs/ctop/nur/health.htm>



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**CONTACT: SHEILA MARABLE, ABD  
(205) 929-6437**

**ASSOCIATE IN APPLIED SCIENCE DEGREE  
Nursing Education  
General Education Required Courses**

<b>General Studies Courses</b>		<b>Sem. Hr(s)</b>
• ENG 101	English Composition I	3
• ENG 102	English Composition II	3
• SPH 107	Fund. Public Speaking	3
• BIO 103	Principles of Biology I w/Lab	4
• BIO 201 **	Human Anatomy & Physiology I	4
• BIO 202 **	Human Anatomy & Physiology II	4
• BIO 220 **	Microbiology w/Lab	4
• MTH 100	Intermediate Algebra	3
• PSY 200	General Psychology	3
<b>TOTAL GENERAL STUDIES COURSES</b>		<b>31</b>

<b>Field of Concentration Courses</b>		<b>40</b>
• NUR 110	Fundamentals of Nursing	6-L1
• NUR 131	Health Assessment	1-L1
• NUR 211 *	Nursing Concepts for Mobility Students	5-L1
• NUR 241	Basic Pharmacology	1-L1
• NUR 242	Advanced Pharmacology	2-L2
• NUR 251	Adult Health I	5-L1
• NUR 252	Adult Health II	5-L2
• NUR 253	Adult Health III	5-L2
• NUR 271	Material Newborn Nursing	4-L1
• NUR 274	Concepts of Pediatric Nursing I	2-L2
• NUR 275	Concepts of Pediatric Nursing II	2-L2
• NUR 280	Psychosocial Nursing	4-L2
• NUR 291	Transition Into Nursing Practice	3-L2
<b>TOTAL REQUIRED HOURS FOR DEGREE</b>		<b>71</b>

- L1 Level I Course
- L2 Level II Course
- \*Advance Placement Mobility/Students  
Must Take NUR 211
- \*\*Five-Year Time Frame

**ASSOCIATE IN APPLIED SCIENCE DEGREE  
Generic Program Curriculum**

<b>Level I Courses</b>		<b>Sem. Hr(s)</b>
• BIO 103	Principles of Biology I w/Lab	4-P
• ENG 101	English Composition I	3-P
• MTH 100	Intermediate Algebra	3-P
• NUR 110	Fundamentals of Nursing	6-S1
• NUR 131	Health Assessment	1-S1
• NUR 241	Basic Pharmacology	1-S1
• BIO 201	Human Anatomy & Physiology I	4-S1
• NUR 251	Adult Health I	5-S2
• NUR 271	Material Newborn Nursing	4-S2
• BIO 202	Human Anatomy & Physiology II	4-S2
• PSY 200	General Psychology	3-S2
<b>TOTAL LEVEL I</b>		<b>38</b>

<b>Level II Courses</b>		<b>33</b>
• BIO 220	Microbiology w/Lab	4-S3
• ENG 102	English Composition II	3-S3
• NUR 242	Advanced Pharmacology	2-S4
• NUR 252	Adult Health II	5-S4
• NUR 253	Adult Health III	5-S5
• NUR 274	Concepts of Pediatric Nursing I	2-S4
• NUR 275	Concepts of Pediatric Nursing II	2-S5
• NUR 280	Psychosocial Nursing	4-S3
• NUR 291	Transition Into Nursing Practice	3-S5
• SPH 107	Fund. Public Speaking	3-S4
<b>TOTAL REQUIRED HOURS FOR DEGREE</b>		<b>71</b>

- P Prerequisite
- S1 First Semester
- S2 Second Semester
- S3 Third Semester
- S4 Fourth Semester
- S5 Fifth Semester

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(205) 929-6460

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Contact: Mr. Cedric Burden ~ (205) 929-2079

**ASSOCIATE IN APPLIED SCIENCE DEGREE  
Mobility Program Curriculum**

<b>General Studies</b>	<b>Sem. Hr(s)</b>
• BIO 103 Principles of Biology I w/Lab	4-P
• BIO 201 Human Anatomy & Physiology I	4-P
• MTH 100 Intermediate Algebra	3-P
• ENG 101 English Composition I	3-P
<b>TOTAL GENERAL STUDIES</b>	<b>14</b>
<b>EXCELSIOR EXAMS</b>	<b>6</b>
Credit by Examination NUR241 Basic Pharmacology	1
<b>Level I Courses</b>	<b>17</b>
• BIO 202 Human Anatomy & Physiology II	4-S1
• NUR 131 Health Assessment	1-S1
• NUR 211 Nursing Concepts for Mobility Students	5-S1
• NUR 271 Material Newborn Nursing	4-S1
• PSY 200 General Psychology	3-S1
<b>Level II Courses</b>	<b>33</b>
• BIO 220 Microbiology w/Lab	4-S2
• ENG 102 English Composition II	3-S2
• NUR 242 Advanced Pharmacology	2-S3
• NUR 252 Adult Health II	5-S3
• NUR 253 Adult Health III	5-S4
• NUR 274 Concepts of Pediatric Nursing I	2-S3
• NUR 275 Concepts of Pediatric Nursing II	2-S4
• NUR 280 Psychosocial Nursing	4-S2
• NUR 291 Transition Into Nursing Practice	3-S4
• SPH 107 Fund. Public Speaking	3-S3
<b>TOTAL REQUIRED HOURS FOR DEGREE</b>	<b>71</b>

- P Prerequisite
- S1 First Semester
- S2 Second Semester
- S3 Third Semester
- S4 Fourth Semester



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**ABBREVIATED CERTIFICATES**

- PSY 100 is a prerequisite for this program
- WorkKeys pre-assessment is required

**Home Health Aide**

- HHA 113 Fund. of Home Health Care 5
- HHA 114 Fund. of Home Health Care Clinicals 2
- HHA 115 CPR and Basics First Aid 2

**TOTAL REQUIRED HOURS FOR CERTIFICATE 9**

**Nurse Assistant**

- NAS 111 Fund. of Long-Term Care 5
- NAS 112 Fund. of Long-Term Care Clinicals 2
- NAS 115 CPR and Basics First Aid 2

**TOTAL REQUIRED HOURS FOR CERTIFICATE 9**

**To All  
NURSING Students**

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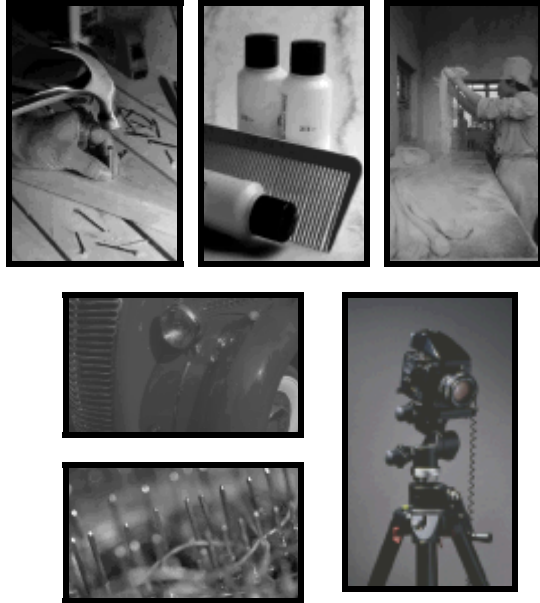


**National Student  
Nurses Association**

The Mission of NSNA is to: Organize, represent and mentor students preparing for initial licensure as registered nurses, as well as those enrolled in baccalaureate completion programs; convey the standards and ethics of the nursing profession; promote development of the skills that students will need as responsible and accountable members of the nursing profession; advocate for high quality health care; advocate for and contribute to advances in nursing education.

**Contact: Sheila Marable, ABD – Chairperson  
Department of Health Professions  
(205) 929-6437**

## DEPARTMENT OF CAREER, TECHNICAL, AND OCCUPATIONAL PROGRAMS



**DONALD SLEDGE, CHAIRPERSON**  
Career, Technical, and Occupational Programs

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**Fax:** 205-929-6362

Visit Our Web Site:

<http://www.lawsonstate.edu/programs/occ/occtech.html>

The Career, Technical, and Occupational Programs Department prepare students to enter a wide range of occupations or give them an opportunity to upgrade their skills. Students enrolled in our programs are prepared to learn the skills that will enable them to earn a living. All trades are taught by expert faculties with work experience and professional degrees. Instruction is of the most current technology using up-to-date equipment.

The curricula content is individualized for students according to their occupational interests and needs that provide them with an opportunity to upgrade their skills and earn a certificate or associate degree. A program of study for each student will be selected from the certificate or degree level courses offered by the College.

The Department's graduates enter the world of work as effective workers that are better qualified for advancements within their field of employment or are qualified for a wide range of entry level employment opportunities.

The Department offers the following degrees and certificates designed to fulfill the unique employment requirements of business and industry. Our traditional trades programs enable students to enter the job market quickly, with up-to-date skills and knowledge of the latest techniques and equipment. The pedagogical courses prepare students to meet the certification requirements of the state board for educator certification.

Auto Body	Electronic Engineering
Barbering	Emergency Med. Serv.
Carpentry	Fire Science
Commer. Foods/Cul. Arts	Industrial Maintenance
Com. Sewing/Apparel Design	Masonry
Cosmetology	Plumbing
Drafting & Design Tech	Radio/TV Broadcasting
Electrical Technology	Related Subjects

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**CONTACT:**

**Mr. Alga Gaston (205)-929-6321**  
**Ms. Bertha James (205)-929-6479**  
**Mr. David Jones (205)-929-6304**  
**Mr. Roderic Taylor (205)-929-2013**  
**Mr. Steve Taylor (205)-929-6351**





**Carpentry \*****General Studies Courses** **Sem. Hours**

- DPT 103 Introductory Computer Skills II 3
- COM 100 Introductory Technical English I 3
- MAH 101 Introductory Technical Math I 3
- SPC 103 Oral Communication Skills 3

**TOTAL GENERAL STUDIES CREDITS 12****Field of Concentration Courses 45**

- CAR 111 Construction Basics 3-S1
- CAR 112 Floors, Walls, Site Prep 3-S1
- CAR 113 Floors, Walls, Site Prep Lab 3-S1
- CAR 114 Intro to Carpentry Tools/Materials 3-S1
- CAR 121 Introduction to Blueprint Reading 3-S2
- CAR 122 Concrete and Forming 3-S2
- CAR 123 Concrete and Forming Lab 3-S2
- CAR 124 Wall and Floor Specialties 3-S3
- CAR 131 Roof and Ceiling Systems 3-S3
- CAR 132 Interior and Exterior Finishing 3-S3
- CAR 133 Roof and Ceiling Systems Lab 3-S3
- CAR 211 Construction Specialties 3-S4
- CAR 212 Construction Specialties Lab 3-S4
- CAR 213 Plans, Specifications and Codes 3-S4
- CAR 217 Estimating 3-S4

**TOTAL REQUIRED HOURS FOR CERTIFICATE 57****Commercial Food Service \*****General Studies Courses** **Sem. Hr(s)**

- DPT 103 Introductory Computer Skills II 3
- MAH 101 Intro Technical Math I 3
- COM100 Intro Technical English I 3
- SPC103 Oral Communication Skills 3

**TOTAL GENERAL STUDIES CREDITS 12****Field of Concentration Courses 38**

- CFS 101 Orientation to Food Service Indus. 1-S1
- CFS 102 Catering 2-S3
- CFS 110 Basic Food Preparation 3-S1
- CFS 111 Foundations in Nutrition 3-S1
- CFS 112 Sanitation, Safety and Food Service 2-S1
- CFS 113 Table Service 2-S2
- CFS 114 Meal Management 3-S1
- CFS 141 Food Production for Special Op. 2-S2
- CFS 201 Meat Preparation and Processing 2-S3
- CFS 204 Foundations of Baking 3-S2
- CFS 213 Food Purchasing and Cost Control 3-S2
- CFS 216 Food and Drug Interaction 1-S3
- CFS 222 Dietary Management 3-S3
- CFS 251 Menu Design 2-S2
- CFS 260 Internship for CFS 3-S3
- CFS 299 Special Topics in CFS 3-S3

**TOTAL REQUIRED HOURS FOR CERTIFICATE 50****Cosmetology****General Studies Courses** **Sem. Hr(s)**

- DPT 103 Introductory Computer Skills II 3
- MAH 101 Intro Technical Math I 3
- COM100 Intro Technical English I 3
- SPC103 Oral Communication Skills 3

**TOTAL GENERAL STUDIES CREDITS 12****Field of Concentration Courses 42**

- COS 111 Cosmetology Science and Art 3-S1
- COS 112 Cosmetology Science/Art Lab 3-S1
- COS 113 Chemical Methodology 3-S1
- COS 114 Chemical Methodology Lab 3-S1
- COS 121 Colorimetry 3-S2
- COS 122 Colorimetry Applications 3-S2
- COS 124 Salon Management 3-S3
- COS 131 Aesthetics 3-S2
- COS 132 Aesthetics Applications 3-S2
- COS 143 Hair Designs 3-S3
- COS 144 Hair Shaping and Design 3-S3
- COS 151 Nail Care 3-S3
- COS 167 State Board Review 3-S3
- COS 191 Co-op 3-S3

**TOTAL REQUIRED HOURS FOR CERTIFICATE 56****Drafting and Design Technology****General Studies Courses** **Sem. Hr(s)**

- DPT 103 Introductory Computer Skills II 3
- MAH 101 Intro Technical Math I 3
- COM100 Intro Technical English I 3
- SPC103 Oral Communication Skills 3

**TOTAL GENERAL STUDIES CREDITS 12****Field of Concentration Courses 39**

- DDT 103 Introduction to CAD 3-S1
- DDT 111 Fundamentals of Drafting/Design 3-S1
- DDT 116 Blueprint Reading for Construction 3-S2
- DDT 123 Intermediate CAD 3-S1
- DDT 132 Architectural Drafting 3-S2
- DDT 192 Drafting Internship 2-S3
- DDT 212 Intermediate Architectural Drafting 3-S2
- DDT 217 Building Codes, Ordinances 3-S4
- DDT 222 Advanced Architectural Drafting 3-S3
- DDT 231 Advanced CAD 3-S3
- DDT 234 3D Graphics and Animation 3-S4
- DDT 250 Theory of Commercial Drawing 3-S2
- DDT 255 Drawing for Commercial Const. 4-S4

**TOTAL REQUIRED HOURS FOR CERTIFICATE 51**

**Electronic Engineering Technology**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• ENG 101	Written Composition I	3
• SPH 107	Oral Communication	3
• MTH 100	Intermediate Algebra	3
• CIS 146 **	Microcomputer Applications	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>

<b>Field of Concentration Courses</b>		<b>30</b>
• EET 100	Introduction to EET	3-S1
• EET 101	DC Theory	3-S1
• EET 102	DC Laboratory	2-S1
• EET 120	Electronics Fabrication	1-S1
• EET 151	AC Theory	3-S2
• EET 152	AC Laboratory	2-S2
• EET 142	Microcomputer Sys./Application	2-S2
• EET 161	Solid State Theory	3-S3
• EET 162	Solid State Laboratory	1-S3
• EET 201	Electronic Circuits	3-S3
• EET 202	Electronic Circuits Laboratory	1-S3
• EET 210	Digital Basics	3-S2
• EET 211	Digital Basics Laboratory	1-S3
• EET 232	Microprocessor Assembler	2-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>42</b>

\*\*CIS 130 or prior computer experience that is equivalent to CIS 130 is required

**Electrical Technology \***

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• ENG 101	Written Composition I	3
• SPH 107	Oral Communication	3
• MTH 100	Intermediate Algebra	3
• CIS 130	Intro to Information Systems	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>

<b>Field of Concentration Courses</b>		<b>45</b>
• ELT 101	DC Principals of Electricity	3-S1
• ELT 102	AC Principles of Electricity	3-S1
• ELT 111	Residential Wiring Methods	3-S1
• ELT 122	Advanced AC/DC Machines	3-S2
• ELT 131	Commercial/Industrial Wiring I	3-S2
• ELT 132	Commercial/Industrial Wiring II	3-S2
• ELT 181	Special Topics in Electrical Tech.	3-S3
• ELT 194	Practicum	3-S3
• ELT 211	Motor Control I	3-S3
• ELT 212	Motor Control II	3-S4
• ELT 221	Electronics for Electricians I	3-S4
• ELT 225	Smart House Wiring	3-S2
• ELT 231	Programmable Controls I	3-S3
• ELT 241	National Electric Code	3-S4
• ELT 244	Conduit Bending and Installation	3-S4
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>47</b>

**Industrial Maintenance Technology \***

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• ENG 101	Written Composition I	3
• SPH 107	Oral Communication	3
• MTH 100	Intermediate Algebra	3
• CIS 130	Intro to Information Systems	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>

<b>Field of Concentration Courses</b>		<b>45</b>
• INT 111	Industrial Mechanics	3-S1
• INT 112	Industrial Mech. Safety Procedure	3-S1
• INT 113	Fund. of Industrial Hydraulics	3-S1
• INT 114	Mech. Measurements/Drawings	3-S1
• INT 121	Ind. Hydraulics Troubleshooting	3-S2
• INT 122	Preventive and Predictive Maint.	3-S2
• INT 123	Ind. Pumps and Piping Systems	3-S2
• INT 124	Prod. Equipment Layout/Install	3-S2
• INT 193	Industrial Maintenance Co-Op	3-S4
• INT 215	Troubleshooting Techniques	3-S4
• INT 231	Industrial Electrical Fundamentals	3-S3
• INT 232	Manufacturing Plant Utilities	3-S3
• INT 233	Industrial Maint. Metal Welding	3-S3
• INT 241	Industrial Electrical Control	3-S4
• INT 242	Fund. of Industrial Pneumatics	3-S4
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>57</b>

**Masonry \***

<b>General Studies Courses</b>		<b>Sem. Hr(s)</b>
• DPT 103	Introductory Computer Skills II	3
• MAH 101	Intro Technical Math I	3
• COM100	Intro Technical English I	3
• SPC103	Oral Communication Skills	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>12</b>

<b>Field of Concentration Courses</b>		<b>45</b>
• MAS 111	Masonry Fundamentals	3-S1
• MAS 121	Brick/Block Masonry	3-S1
• MAS 131	Residential/Commercial	3-S3
• MAS 151	Masonry Fundamentals Lab	3-S1
• MAS 152	Masonry Fundamentals Lab	3-S2
• MAS 153	Special Topics/Projects	3-S1
• MAS 161	Concrete Block Masonry	3-S2
• MAS 162	Brick Masonry Lab	3-S2
• MAS 171	Residential/Commercial	3-S3
• MAS 211	Stone Masonry	3-S4
• MAS 231	Basic Cement Masonry	3-S3
• MAS 251	Stone Masonry Lab	3-S4
• MAS 252	Fireplace Construction	3-S4
• MAS 253	Brick Arches Lab	3-S4
• MAS 271	Basic Cement Masonry Lab	3-S3
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>57</b>



**Automotive Body Repair (ABR)**

General Studies Courses	Sem. Hours
• DPT 103 Introductory Computer Skills II	3
• <u>One of the following courses:</u>	3
COM 100 Introductory Technical English I	
MAH 101 Introductory Technical Math I	
SPC 103 Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>6</b>
<b>Field of Concentration Courses</b>	<b>18</b>
• ABR 111 Non Structural Repair S1	3-S1
• ABR 112 Panel Replacements S1	3-S1
• ABR 121 Refinishing Mat. and Equip.	3-S1
• ABR 122 Surface Preparation S2	3-S2
• ABR 151 Safety/Environ Pre-activities S2	3-S2
• ABR 154 Auto Glass and Trim S2	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>24</b>

**Barbering (BAR)**

General Studies Courses	Sem. Hours
• DPT 103 Introductory Computer Skills II	3
• <u>One of the following courses:</u>	3
COM 100 Introductory Technical English I	
MAH 101 Introductory Technical Math I	
SPC 103 Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>6</b>
<b>Field of Concentration Courses</b>	<b>18</b>
• BAR 110 Orientation to Barbering	3-S1
• BAR 112 Bacteriology and Sanitation	3-S1
• BAR 113 Barbering Styling Lab	3-S1
• BAR 121 Chemical Hair Processing	3-S2
• BAR 130 Marketing Business Management	3-S2
• BAR 132 Hair Styling and Design	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>24</b>

**Carpentry (CAR)**

General Studies Courses	Sem. Hours
• DPT 103 Introductory Computer Skills II	3
• <u>One of the following courses:</u>	3
COM 100 Introductory Technical English I	
MAH 101 Introductory Technical Math I	
SPC 103 Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>6</b>
<b>Field of Concentration Courses</b>	<b>18</b>
• CAR 111 Construction Basics	3-S1
• CAR 112 Floors Walls, Site Prep	3-S1
• CAR 113 Floors, Walls, Site Prep Lab	3-S1
• CAR 121 Introduction to Blueprint Reading	3-S2
• CAR 122 Concrete Forming	3-S2
• CAR 123 Concrete Forming Lab	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>24</b>

**Cabinetmaking (CAB)**

General Studies Courses	Sem. Hours
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>0</b>
<b>Field of Concentration Courses</b>	<b>24</b>
• CAB 101 Intro to Cabinetmaking	3-S1
• CAB 102 Introduction to Lumber	3-S1
• CAB 103 Sizes, Dimensions & Joists	3-S1
• CAB 140 Wood Finishing Fundamentals	3-S1
• CAB 104 Cabinet Shop Operations	3-S2
• CAB 141 Wood Finishing	3-S2
• CAB 145 Refinishing Furniture	3-S2
• CAB 204 Cabinet Making and Millwork	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>24</b>
• <i>Students must complete the short-term certificate in Carpentry or demonstrate the basics of carpentry prior to enrolling in Cabinetmaking.</i>	

**Commercial Food Service (CFS)**

General Studies Courses	Sem. Hours
• DPT 103 Introductory Computer Skills II	3
• <u>One of the following courses:</u>	3
COM 100 Introductory Technical English I	
MAH 101 Introductory Technical Math I	
SPC 103 Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>6</b>
<b>Field of Concentration Courses</b>	<b>19</b>
• CFS 101 Orientation to Food Service	1-S1
• CFS 110 Basic Food Preparation	3-S1
• CFS 112 Safety and Sanitation	2-S1
• CFS 114 Meal Management	3-S1
• CFS 113 Table Service	2-S2
• CFS 141 Food Production for Spc. Op.	2-S2
• CFS 204 Foundations of Baking	3-S2
• CFS 213 Food Purchasing/Cost Control	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>25</b>

**Drafting and Design Technology (DDT)**

General Studies Courses	Sem. Hours
• CIS 130 Introduction to Computer Science	3
• MTH 100 Intermediate Algebra	3
<b>TOTAL GENERAL STUDIES CREDITS</b>	<b>6</b>
<b>Field of Concentration Courses</b>	<b>18</b>
DDT 103 Introduction to CAD S1	3-S1
DDT 116 Blueprint Reading for Const. S1	3-S1
DDT 123 Intermediate CAD S1	3-S1
DDT 132 Architectural Drafting S2	3-S2
DDT 212 Intermediate Architectural Draft S2	3-S2
DDT 250 Theory of Commercial Drawing S2	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>	<b>24</b>

**Electronic Engineering Technology (EET)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• CIS 130	Introduction to Computer Science	3
• MTH 100	Intermediate Algebra	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• EET 100	Introduction to EET	3-S1
• EET 101	DC Theory	3-S1
• EET 102	DC Laboratory	2-S1
• EET 120	Electronics Fabrication	1-S1
• EET 151	AC Theory	3-S2
• EET 152	AC Laboratory	2-S2
• EET 142	Microcomputer Systems/Appl.	2-S2
• EET 232	Microprocessor Assembler	2-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Electrical Technology (ELT)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• CIS 130	Introduction to Computer Science	3
• MTH 100	Intermediate Algebra	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• ELT 101	DC Principals of Electricity	3-S1
• ELT 102	AC Principles of Electricity	3-S1
• ELT 111	Residential Wiring Methods	3-S1
• ELT 122	Advanced AC/DC Machines	3-S2
• ELT 131	Commercial/Industrial Wiring I	3-S2
• ELT 132	Commercial/Industrial Wiring II	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Emergency Medical Services (EMS)**

<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>0</b>
<b>Field of Concentration Courses</b>		<b>10</b>
• EMS 100	Cardiopulmonary Resuscitation I	1
• EMS 140	EMT Preparatory & Pre-Hospital EMS Operations	2
• EMS 141	EMT Assessment & Trauma Related Injuries	3
• EMS 142	EMT Med. Emer. Pediatric Care Pediatric Care	3
• EMS 143	EMT Basic Clinical Competencies	1
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>10</b>

**Fashion Merchandising (CMS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• SPC 103	Oral Communication Skills	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• CMS101	Introduction to Apparel Trades	3-S1
• CMS111	Apparel Industry Tools/Machine	3-S1
• BUS263	Legal/Social Environment of Bus	3-S1
• CMS150	Apparel Management	3-S2
• CMS148	Accessories/Related Merchandise	3-S2
• BUS285	Principles of Marketing	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Fire Science (FSC)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• ENG 101	Written Composition I	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>3</b>
<b>Field of Concentration Courses</b>		<b>21</b>
• FSC 111	Fire Hydraulics	3-S1
• FSC 130	Introduction to Fire Suppression	3-S1
• FSC 200	Fire Combat Tactics and Strategy	3-S1
• FSC 220	Fire Extinguishment Agents	3-S2
• FSC 240	Fire Cause Determination	3-S2
• FSC 250	Fire Prevention Inspection	3-S2
• FSC 260	Special Service Hazards	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Industrial Maintenance Technology**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• CIS 130	Introduction to Computer Science	3
• MTH 100	Intermediate Algebra	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• INT 111	Industrial Mechanics	3-S1
• INT 112	Industrial Mech. Safety Procedure	3-S1
• INT 113	Fund. of Industrial Hydraulics	3-S1
• INT 121	Ind. Hydraulics Troubleshooting	3-S2
• INT 122	Preventive and Predictive Maint.	3-S2
• INT 123	Ind. Pumps and Piping Systems	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Fittings and Alterations (CMS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• MAH 101	Introductory Technical Math I	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• CMS 111	Apparel Industry Tools/Machine	3-S1
• CMS 120	Concepts Apparel Construction	3-S1
• CMS 121	Basic Apparel Construction Lab	3-S1
• CMS 160	Pattern Fitting and Adjustments	3-S2
• CMS 181	Special Topics in Comm. Sewing	3-S2
• CMS	Elective	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Masonry (MAS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• <u>One of the following courses:</u>		3
COM 100	Introductory Technical English I	
MAH 101	Introductory Technical Math I	
SPC 103	Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• MAS 111	Masonry Fundamentals	3-S1
• MAS 121	Brick/Block Masonry	3-S1
• MAS 151	Masonry Fundamentals Lab	3-S1
• MAS 152	Masonry Fundamentals Lab	3-S2
• MAS 161	Concrete Block Masonry	3-S2
• MAS 162	Brick Masonry Lab	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Nail Care (COS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• <u>One of the following courses:</u>		3
COM 100	Introductory Technical English I	
MAH 101	Introductory Technical Math I	
SPC 103	Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• COS 151	Nail Care	3-S1
• COS 152	Nail Care Application	3-S1
• COS 153	Nail Art	3-S2
• COS 154	Nail Art Application	3-S2
• COS 156	Career and Personal Development	3-S1
• COS 124	Salon Management	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Plumbing (PLB)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• <u>One of the following courses:</u>		3
COM 100	Introductory Technical English I	
MAH 101	Introductory Technical Math I	
SPC 103	Oral Communication Skills	
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• PLB 111	Introduction to Plumbing	3-S1
• PLB 112	Plumbing Applications	3-S1
• PLB 113	Pipes and Fittings	3-S1
• PLB 115	Pressure and Non-Pressure Sys	3-S2
• PLB 116	Pressure/Non-Pressure Sys App	3-S2
• PLB 118	Code Application	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Radio/TV Broadcasting Technology (RTV)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• CIS 130	Intro to Information Systems	3
• ENG 101	Oral Communication Skills	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• PFC 173	Photography I	3-S1
• RTV 100	Introduction to Broadcasting S1	3-S1
• RTV 116	Radio Production/Programming S1	3-S1
• RTV 117	Television Production S2	3-S2
• RTV 143	Practicum in RTV S2	3-S2
• RTV 242	Internship in RTV S2	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Soft Interior Furnishings (CMS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
• SPC 103	Oral Communication Skills	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>6</b>
<b>Field of Concentration Courses</b>		<b>18</b>
• CMS111	Apparel Industry Tools/Machinery	3-S1
• CMS130	Introduction to Textiles	3-S1
• CMS190	Window Treatments	3-S1
• CMS191	Soft Interior Furnishings	3-S2
• CMS192	Soft Interior Furnishings Lab	3-S2
• CMS Elective		3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

**Tailoring and Alterations (CMS)**

<b>General Studies Courses</b>		<b>Sem. Hours</b>
• DPT 103	Introductory Computer Skills II	3
<b>TOTAL GENERAL STUDIES CREDITS</b>		<b>3</b>
<b>Field of Concentration Courses</b>		<b>21</b>
CMS101	Introduction to Apparel Trades	3-S1
CMS111	Apparel Industry Tools/Machine	3-S1
CMS145	Basic Tailoring and Alterations	3-S1
CMS123	Advanced Applied Production	3-S2
CMS143	Quality Control Techniques	3-S2
CMS146	Advanced Tailoring and Alteration	3-S2
CMS160	Pattern Fitting and Adjustments	3-S2
<b>TOTAL REQUIRED HOURS FOR CERTIFICATE</b>		<b>24</b>

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## COURSE DESCRIPTIONS

*Career, Technical, and Occupational Programs*

### AUTOMOTIVE BODY REPAIR (ABR)

#### ABR 111 NON-STRUCTURAL REPAIR 3 HOURS

*Prerequisite(s): As required by program*

Students are introduced to basic principles of non-structural panel repairs. Topics include shop safety, identification and use of hand/power tools, sheet metal repairs, and materials. Upon completion, students should be able to perform basic sheet metal repairs.

#### ABR 112 NON-STRUCTURAL PANEL REPLACEMENT 3 HOURS

*Prerequisite(s): As required by program*

Students are introduced to basic principles of non-structural panel replacement. Topics include replacement and alignment of bolt-on panels, full and partial panel replacement procedures, and attachment methods. Upon completion, students should be able to replace and align non-structural panels.

#### ABR 121 REFINISHING MATERIALS EQUIPMENT 3 HOURS

*Prerequisite(s): As required by program*

Students are introduced to the various types of automotive finishes and the equipment used in their application. Emphasis is placed on identification of refinishing materials, types of spray equipment, and proper safety precautions. Upon completion, students should be able to properly select paint materials and equipment.

#### ABR 122 SURFACE PREPARATION 3 HOURS

*Prerequisite(s): As required by program*

This course introduces students to methods of surface preparation for automotive refinishing. Topics include sanding techniques, metal treatment, selection and use of undercoats, and proper masking procedures. Upon completion, students should be able to prepare a vehicle for refinishing.

#### ABR 151 SAFETY ENVIRONMENT PRACTICES 3 HOURS

*Prerequisite(s): As required by program*

This course is designed to instruct the student in safe work practices. Topics include OSHA requirements, EPA regulations as well as state and local laws. Upon completion, students should be knowledgeable in shop safety and environmental regulations.

#### ABR 154 GLASS AND TRIM 3 HOURS

*Prerequisite(s): As required by program*

This course is a study of automotive glass and trim. Emphasis is placed on removal and replacement of structural glass, non-structural glass and auto trim. Upon completion, students should be able to remove and replace automotive trim and glass.

#### ABR 156 AUTO CUTTING AND WELDING 3 HOURS

*Prerequisite(s): As required by program*

Students are introduced to the various automotive cutting and welding processes. Emphasis is placed on safety, plasma arc and oxy-acetylene cutting, resistance type spot welding, and Metal Inert Gas (MIG) welding. Upon completion, students should be able to safely perform automotive cutting and welding procedures.

#### ABR 211 STRUCTURAL ANALYSIS 3 HOURS

*Prerequisite(s): As required by program*

Students learn methods of determining structural misalignment. Topics include methods of inspection, types of measuring equipment, data sheets, and identifying types of structural damage. Upon completion, students should be able to locate and identify structural damage.

#### ABR 212 STRUCTURAL REPAIR 3 HOURS

*Prerequisite(s): As required by program*

This course provides instruction in the correction of structural damage. Topics include types and use of alignment equipment, anchoring and pulling methods, and repair/replacement of structural components. Upon completion, students should be able to replace and/or align structural components to factory specifications.

#### ABR 221 MECHANICAL COMPONENTS 3 HOURS

*Prerequisite(s): As required by program*

This course provides instruction in collision related mechanical repairs. Emphasis is placed on diagnosis and repairs to drive train, steering/suspension components and various other mechanical repairs. Upon completion, students should be able to diagnose and repair collision damaged mechanical components.

#### ABR 222 ELECTRICAL COMPONENTS 3 HOURS

*Prerequisite(s): As required by program*

This course provides instruction in collision related electrical repairs. Topics include basic DC theory, types of diagnostic equipment, circuit protection, wire repair and use of wiring diagrams. Upon completion, students should be able to diagnose and repair collision damaged electrical components.

#### ABR 252 BODY SHOP MANAGEMENT 3 HOURS

*Prerequisite(s): As required by program*

Students are instructed in basic principles of body shop management. Emphasis is placed on management structure, customer/insurance company relations and sound business practices. Upon completion, students should be able to understand the principles of operating a collision repair facility.

#### ABR 253 AIR CONDITIONING AND COOLING 3 HOURS

*Prerequisite(s): As required by program*

This course is a study of automotive air conditioning and cooling systems. Topics include automotive air conditioning and cooling theory, component replacement and system service. Upon completion, students should be able to repair and service air conditioning and cooling systems related to collision repair.

**ABR 255 STEERING AND SUSPENSION 3 HOURS***Prerequisite(s): As required by program*

This course introduces students to the various types of suspension and steering systems used in the automotive industry. Emphasis is placed on system components, suspension angles and effect of body/frame alignment on these components and angles. Upon completion, students should be able to repair and/or replace damaged components and prepare the vehicle for alignment.

**ABR 257 ADVANCED STRUCTURAL REPAIR 3 HOURS***Prerequisite(s): As required by program.*

This course provides instruction in the correction of major structural damage. Topics include types and use of alignment equipment, anchoring and pulling methods, and repair/replacement of major structural components. Upon completion, students should be able to replace and/or align major structural components to factory specification.

**ACCOUNTING (ACC)****ACC 129 INDIVIDUAL INCOME TAXES 3 HOURS***Prerequisite(s): As required by program*

This course introduces the relevant laws governing individual income taxation. Emphasis is placed on filing status, exemptions for dependents, gross income, adjustments, deductions, and computation of tax. Upon completion, students should be able to complete various tax forms pertaining to the topics covered in the course.

**ACC 140 PAYROLL ACCOUNTING 2 HOURS***Prerequisite(s): ACC 115 or ACC 244 and/or as required by program*

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries.

**ACC 149 INTRO TO ACCOUNTING SPREADSHEETS 3 HOURS***Prerequisite(s): ACC 115 or ACC 241 and/or as required by program*

This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

**ACC 150 COMPUTERIZED GENERAL LEDGER 3 HOURS***Prerequisite(s): ACC 115 and/or as required by program*

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion,

students should be able to use a computer accounting package to solve accounting problems.

**ACCOUNTING TECHNOLOGY (ACT)****ACT 246 MICROCOMPUTER ACCOUNTING 3 HOURS***Prerequisite(s): ACT 141 and/or as required by program*

This course utilizes the microcomputer in the study of financial accounting principles and practices. Emphasis is placed on the use of software programs for financial accounting applications. Upon completion of this course, the student will be able to use software programs for financial accounting applications.

**ACT 247 ADVANCED ACCOUNTING APPLICATIONS ON THE COMPUTER 3 HOURS***Prerequisite(s): ACT 246 and/or as required by program*

In this course, students use the microcomputer in managerial accounting. Emphasis is on a variety of software programs for managerial accounting applications. Upon completion of this course, the student will be able to use various managerial accounting software programs.

**ACT 249 PAYROLL ACCOUNTING 3 HOURS***Prerequisite(s): ACT 145 or ACT 141 and/or as required by program*

This course focuses on federal, state and local laws affecting payrolls. Emphasis is on payroll accounting procedures and practices, and on payroll tax reports. Upon completion of this course, the student will be able to apply knowledge of federal, state and local laws affecting payrolls.

**ACT 253 INDIVIDUAL INCOME TAX 3 HOURS***Prerequisite(s): BUS 210, 241, and/or as required by program*

This course focuses on the fundamentals of the federal income tax laws with primary emphasis on those affecting the individual. Emphasis is on gross income determination, adjustments to income, business expenses, itemized deductions, exemption, capital gains/losses, depreciation, and tax credits. Upon completion of this course, the student will be able to apply the fundamentals of the federal income tax laws affecting the individual.

**BARBERING (BAR)****BAR 110 ORIENTATION TO BARBERING 3 HOURS***Prerequisite(s): As required by program*

This course provides an orientation to professional barber styling. Topics include professional image, basic fundamentals, and the history of barber-styling. Upon completion, the student should be able to identify the core concepts of the profession.

**BAR 111 SCIENCE OF BARBERING 3 HOURS***Prerequisite(s): As required by program*

This course introduces the student to the basic science of barber-styling. Topics include anatomy/physiology, disorders and treatments of the skin, scalp, and hair, and theory of facial

and scalp massage. Upon completion, the student should be familiar with the anatomical structures, as well as disorders and treatments of the skin, scalp, and hair.

**BAR 112 BACTERIOLOGY AND SANITATION 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the theory of bacteriology and sanitation. Topics include the types of bacteria and sanitation procedures. Upon completion, the student should be able to identify types of bacteria and methods of sanitation.

**BAR 113 BARBER-STYLING LAB 3 HOURS**

*Prerequisite(s): As required by program*

This course provides practical application of barber-styling fundamentals. Emphasis is placed on the care of implements, shampooing and haircutting. Upon completion, the student should be able to care for their implements properly and demonstrate the basic techniques of shampooing and haircutting with only minimal supervision.

**BAR 120 PROPERTIES OF CHEMISTRY 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student with a basic knowledge of chemicals used in barber-styling. Topics include the changes produced in the hair and skin through exposure to chemicals, electricity, and special light spectrums. Upon completion, the student should understand the proper use of implements and chemicals to treat hair and skin.

**BAR 121 CHEMICAL HAIR PROCESSING 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student with knowledge and hands-on experience using chemicals to alter the appearance of hair. Emphasis is placed on the use of chemicals to relax, wave, and soft curl the hair. Upon completion, the student should be competent in the use of chemicals to produce desired structure changes to the hair.

**BAR 122 HAIR COLORING CHEMISTRY 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student with a basic knowledge of hair color alteration. Topics include temporary, semi-permanent, and permanent changes. Upon completion, the student should be able to identify and explain the procedures for each classification of hair color alteration.

**BAR 124 HAIR COLORING METHODOLOGY LAB 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student an opportunity for practical application of all classifications of chemical hair coloring and processing products in a supervised environment. Emphasis is placed on experience in all classifications of hair coloring and processing procedures.

**BAR 130 MARKETING AND BUSINESS MANAGEMENT 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student with marketing and management skills that are essential for successful salon management. Topics include first aid, job search, bookkeeping,

selling techniques, shop floor plans, shop location, and legal regulations. Upon completion, the student should be aware of marketing and business management requirements for a successful salon.

**BAR 131 STRUCTURE AND DISORDER OF NAILS 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the student with knowledge of nail structure and experience in identifying nail disorders. Emphasis is placed on identifying disorders and also using the correct implements and supplies for healthy nail care and manicures. Upon completion, the student should be capable of providing professional nail care.

**BAR 132 HAIR STYLING AND DESIGN 3 HOURS**

*Prerequisite(s): As required by program*

This course introduces the student to the art of hair styling and design. Topics include the selection of styles to create a mood or complement facial features as well as hair replacement and hair pieces. Upon completion, the student should know the principals of style and design.

**BAR 133 HAIR STYLING AND MANAGEMENT LAB 3 HOURS**

*Prerequisite(s): As required by program*

This course includes hair styling and management procedure. Emphasis is placed on styling, management, marketing, and legal regulations. Upon completion, the student should be able to integrate a variety of skills and be ready to begin an internship in a salon setting.

**BANKING AND FINANCE (BFN)**

**BFN100 PRINCIPLES OF BANKING 2 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to the broad area of banking. Topics include the evolution of banking, Federal Reserve System, documents and forms used, rudimentary laws and regulations, as well as a study of the specialized services offered. Upon completion of this course, the student will be able to perform basic banking functions.

**BFN101 LAW AND BANKING: PRINCIPLES 2 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to banking law and legal issues, with special emphasis on the Uniform Commercial Code. Topics include the role of regulators, torts, contracts, real estate, bankruptcy, and the legal implications of consumer lending. Upon completion of the course, the student will be able to work with basic banking documents.

**BFN 102 LAW AND BANKING: APPLICATIONS 2 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to laws pertaining to secured transactions, letters of credit, the bank collection process, check losses and the legal issues related to processing checks. Topics include negotiable instruments, authorized signatures, collection routes, forgery and fraud, letters of credit and secured transactions. Upon completion of this course, the

student will be able to work with more complex banking documents.

**BFN 103 PERSONNEL AND THE LAW 1 HOUR**

*Prerequisite(s): As required by program*

This course is an introduction to some basic laws essential to the management of bank personnel. Topics include the Civil Rights Act, EEOC, ERISA, COBRA, and OSHA. Upon completion of this course the student will be able to understand what rights he or she has in the workplace.

**BFN 207 ESSENTIALS OF BANKING 1 HOUR**

*Prerequisite(s): As required by program*

This course provides an orientation to the essential principles, concepts, and operations of banking. Topics include sweep accounts, branches, Federal Reserve System, importance of banks in the economy, laws and regulations, and financial statements. Upon completion of this course, the student will have the rudimentary skills to perform basic banking functions.

**BUSINESS (BUS)**

**BUS 100 INTRODUCTION TO BUSINESS 3 HOURS**

*Prerequisite(s): As required by program*

This is a survey course designed to acquaint the student with American business as a dynamic process in a global setting. Topics include the private enterprise system, forms of business ownership, marketing, factors of production, personnel, labor, finance, and taxation.

**BUS 146 PERSONAL FINANCE 3 HOURS**

*Prerequisite(s): As required by program*

This course is a survey of topics of interest to the consumer. Topics include budgeting, financial institutions, basic income tax, credit, consumer protection, insurance, house purchase, retirement planning, estate planning, investing, and consumer purchases.

**BUS 147 INTRODUCTION TO FINANCE 3 HOURS**

*Prerequisite(s): As required by program*

This course is a survey of monetary and credit systems. Topics include the role of the Federal Reserve System, sources of capital, including forms of long-term corporate financing, and consumer credit in the financial structure of our economy.

**BUS 150 BUSINESS MATH 3 HOURS**

*Prerequisite(s): As required by program*

This course is a study of practical business mathematics. Topics include fundamental processes of arithmetic with emphasis on decimals and percentages, markup, discounts, bank reconciliation, simple and compound interest discounting notes, depreciation methods, and present value.

**BUS 186 ELEMENTS OF SUPERVISION 3 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to the fundamentals of supervision. Topics include the functions of management, responsibilities of the supervisor, management-employee

relations, organizational structure, project management, and employee training and rating.

**BUS 188 PERSONAL DEVELOPMENT 3 HOURS**

*Prerequisite(s): As required by program*

This course provides strategies for personal and profession development. Topics include business etiquette, personal appearance, interviewing techniques, and development of a self-concept necessary for business success.

**BUS 189 HUMAN RELATIONSHIPS 3 HOURS**

*Prerequisite(s): As required by program*

This course enables employees to better understand actions and motivations within the organizational structure. Topics include general principles of human behavior operating in the workplace.

**BUS 190 MANAGEMENT WORKSHOP I 3 HOURS**

*Prerequisite(s): As required by program*

This course is a part of a series of workshops where in current topics of interest are presented. They are offered upon demand and can be tailored for the needs of individuals, business and industry.

**BUS 191 MANAGEMENT WORKSHOP II 3 HOURS**

*Prerequisite(s): As required by program*

This course is a part of a series of workshops where in current topics of interest are presented. They are offered upon demand and can be tailored for the needs of individuals, business and industry.

**BUS 192 MANAGEMENT WORKSHOP III 3 HOURS**

*Prerequisite(s): As required by program*

This course is a part of a series of workshops where in current topics of interest are presented. They are offered upon demand and can be tailored for the needs of individuals, business and industry.

**BUS 194 BUSINESS CO-OP II 3 HOURS**

*Prerequisite(s): As required by program*

This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to practices in the business environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

**BUS 198 COMPUTER INFORMATION SYSTEMS IN A CALL CENTER 3 HOURS**

*Prerequisite(s): Instructor Approval and Minimum and/or as required by program*

This course is a "hands-on" introduction to the computer systems used in a typical call center. Topics include computer fundamentals, basic hardware, and specific software applications common to the call center industry. Working within a customer information database and basic keyboarding will also be a component of this course.

<b>BUS 202</b>	<b>PROFESSIONAL DEVELOPMENT</b>	<b>3 HOURS</b>
<i>Prerequisite(s): Instructor Approval and Minimum and/or as required by program</i>		
This course equips the student with the skills to effectively present themselves for call center interviews. Topics include resume writing, presentation skills and interviewing techniques.		
<b>BUS 210</b>	<b>INTRODUCTION TO ACCOUNTING</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is an introduction to accounting and financial reporting concepts and the use of accounting information for financial and managerial decisions. Information is presented from a financial statement user approach.		
<b>BUS 215</b>	<b>BUSINESS COMMUNICATION</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course covers written, oral and nonverbal communications. Topics include the application of communication principles to the production of clear, correct, and logically organized faxes, e-mail, memos, letters, resumes, reports, and other business communications.		
<b>BUS 241</b>	<b>PRINCIPLES OF ACCOUNTING I</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to provide a basic theory of accounting principles and practices used by service and merchandising enterprises. Emphasis is placed on financial accounting, including the accounting cycle, and financial statement preparation analysis.		
<b>BUS 242</b>	<b>PRINCIPLES OF ACCOUNTING II</b>	<b>3 HOURS</b>
<i>Prerequisite(s): BUS 241 and/or as required by program</i>		
This course is a continuation of BUS 241. In addition to a study of financial accounting, this course also places emphasis upon managerial accounting, with coverage of corporations, statement analysis introductory cost accounting, and use of information for planning, control, and decision-making.		
<b>BUS 246</b>	<b>ACCOUNTING ON THE MICROCOMPUTER</b>	<b>3 HOURS</b>
<i>Prerequisite(s): BUS 242 and/or as required by program</i>		
This course utilizes the microcomputer in a study of accounting principles and practices. Emphasis is on the preparation and analysis of financial statements, measuring business activity, and making rational business decisions.		
<b>BUS 248</b>	<b>MANAGERIAL ACCOUNTING</b>	<b>3 HOURS</b>
<i>Prerequisite(s): BUS 241, 242, and/or as required by program</i>		
This course is designed to familiarize the student with management concepts and techniques of industrial accounting procedures. Emphasis is placed on cost behavior, contribution approach to decision-making, budgeting, overhead analysis, cost-volume-profit analysis, and cost accounting systems.		

<b>BUS 261</b>	<b>BUSINESS LAW I</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides an overview of legal principles affecting businesses. Topics include contracts, agency and employment, negotiable instruments, bailments, and sale of goods.		
<b>BUS 262</b>	<b>BUSINESS LAW II</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is a continuation of BUS 261. Topics include legal principles related to partnerships, corporations, real property and leases, insurance, security devices, bankruptcy, trust and estates; government regulations of business and labor; civil and criminal liability; and business security.		
<b>BUS 263</b>	<b>THE LEGAL AND SOCIAL OF BUSINESS ENVIRONMENT</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides an overview of the legal and social environment for business operations with emphasis on contemporary issues and their subsequent impact on business. Topics include the Constitution, the Bill of Rights, the legislative process, civil and criminal law, administrative agencies, trade regulations, consumer protection, contracts, employment and personal property.		
<b>BUS 275</b>	<b>PRINCIPLES OF MANAGEMENT</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides a basic study of the principles of management. Topics include planning, organizing, staffing, directing, and controlling with emphasis on practical business applications.		
<b>BUS 276</b>	<b>HUMAN RESOURCE MANAGEMENT</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides an overview of the responsibilities of the supervisor of human resources. Topics include the selection, placement, testing, orientation, training, rating, promotion, and transfer of employees.		
<b>BUS 277</b>	<b>MANAGEMENT SEMINAR</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course offers study of current problems, issues, and developments in the area of management. Students are guided through individual projects and outside research related to their areas of concentration and employment training.		
<b>BUS 279</b>	<b>SMALL BUSINESS MANAGEMENT</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides an overview of the creation and operation of a small business. Topics include buying a franchise, starting a business, identifying capital resources, understanding markets, managing customer credit, managing accounting systems, budgeting systems, inventory systems, purchasing insurance, and the importance of appropriate legal counsel.		
<b>BUS 285</b>	<b>PRINCIPLES OF MARKETING</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides a general overview of the field of marketing. Topics include marketing strategies, channels of distribution, marketing research, and consumer behavior.		

**BUS 296 BUSINESS INTERNSHIP I 3 HOURS**

*Prerequisite(s):* Minimum 6 Semester Hours Completed/Minimum GP 2.0 (C) and/or as required by program

This two-course sequence allows the student to work part-time on a job closely related to his or her academic major while attending classes on a full-time basis. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on a term paper, job-site visits by the instructor, the employer's evaluation of the student, and the development and assessment by the student of a learning contract.

**BUS 297 BUSINESS INTERNSHIP II 3 HOURS**

*Prerequisite(s):* Minimum 6 Semester Hours Completed/Minimum GP 2.0 (C) and/or as required by program

This two-course sequence allows the student to work part-time on a job closely related to his or her academic major while attending classes on a full-time basis. Emphasis is placed on a student's work experience as it integrates academic knowledge with practical applications in the business environment. The grade is based on a term paper, job-site visits by the instructor, the employer's evaluation of the student, and the development and assessment by the student of a learning contract.

**BUS 298 DIRECTED STUDIES I 1-3 HOURS**

*Prerequisite(s):* As required by program

This course offers independent study under faculty supervision. Emphasis is placed on subject relevancy and student interest and need.

**BUS 299 DIRECTED STUDIES II 1-3 HOURS**

*Prerequisite(s):* As required by program

**CABINETMAKING (CAB)****CAB 101 INTRODUCTION TO CABINETMAKING 3 HOURS**

*Prerequisite(s):* As required by program

This is a beginning woodworking course that deals with basic materials and processes. Topics include introduction to tools and equipment and safety. Upon course completion, students should be able to perform techniques for building small projects, techniques of gluing, clamping, nailing, and screwing.

**CAB 102 INTRODUCTION TO LUMBER 3 HOURS**

*Prerequisite(s):* As required by program

This is an introductory course to lumber, grades, sizes, characteristics and uses. Also included in the course is the operation, care and sharpening of woodworking equipment. Upon course completion, students should be able to construct and finish a furniture project and demonstrate the characteristics and methods of sawing lumber.

**CAB 103 SIZES, DIMENSION AND JOINTS 3 HOURS**

*Prerequisite(s):* As required by program

This course includes the study of cutting lumber to dimensions and materials to size with power tools. Emphasis is on job planning and the construction of all types of joints made with hand and power tools. Upon course completion, students

should be able to plan jobs, make shop drawings, job layouts and patterns.

**CAB 104 CABINET SHOP OPERATIONS 3 HOURS**

*Prerequisite(s):* As required by program

This course covers establishing and maintaining a custom cabinet shop. Topics include financing, equipment acquisition, maintenance, inventory techniques, OSHA requirements, shop organization, and safety and delivery systems. Upon completion, students should be able to organize and maintain a custom cabinet business.

**CAB 141 WOODFINISHING 2 HOURS**

*Prerequisite(s):* As required by program

This course is a continuation of CAB 140. Emphasis is on filling, rubbing, spraying, and building up finishes. Upon course completion, students should be able to perform woodfinishing procedures.

**CAB 145 REFINISHING FURNITURE AND ANTIQUES 2 HOURS**

*Prerequisite(s):* As required by program

This course offers instruction in refinishing furniture and restoring antiques. Emphasis is on the removal of old finish by stripping, washing, and sanding furniture; repair of broken pieces; and the use of veneers in patching. Upon course completion, students should be able to refinish furniture and antiques.

**CAB 204 CABINETMAKING AND MILLWORK 2 HOURS**

*Prerequisite(s):* CAB 102 and/As required by program.

This course focuses on design and construction of casework. Topics include study of designs, construction and installation of kitchen cabinets, vanities, shelves, and other casework and the use and installation of cabinet hardware. Upon course completion, students should be able to design, construct and install basic interior casework.

**CARPENTRY (CAR)****CAR 111 CONSTRUCTION BASICS 3 HOURS**

*Prerequisite(s):* As required by program

This course introduces students to the opportunities in and requirements of the construction industry. Topics include economic outlook for construction, employment outlook, job opportunities, training, apprenticeship, entrepreneurship, construction tools, materials, and equipment, and job safety. Upon course completion, students should be able to identify the job market, types of training, knowledge of apprenticeship opportunities, construction tools, materials, equipment, and safety procedures.

**CAR 112 FLOORS, WALLS, SITE PREP 3 HOURS**

*Prerequisite(s):* As required by program

This course introduces the student to floor and wall layout, and construction. Topics include methods of house framing, components of floor framing, layouts, sub-flooring, connectors and fasteners, and site preparation. Upon course completion, students will be able to identify various types of floor framing systems, select the sizes of floor joists, identify types of house

framing, list types of fasteners, and identify property lines, set backs, and demonstrate a working knowledge of terrain and batter boards.

**CAR 113 FLOORS, WALLS, SITE PREP LAB 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program  
*Co-requisite(s):* CAR 112

The student will engage in applications of floor and wall construction, application of required tools, use of the builder transit, level rod, tape measure and grade stakes. Emphasis is placed on cutting sill plates, floor joists, girders, header bridging, sub-flooring, stud wall partitions, door and window headers, wall bracing, leveling instruments, and batter boards. Upon course completion, students should be able to layout and construct a floor, including the sill, joist bridging and openings, install sub-flooring, construct interior and exterior walls, and layout property stakes of site plans.

**CAR 114 INTRODUCTION TO CARPENTRY TOOLS AND MATERIALS 3 HOURS**

*Prerequisite(s):* As required by program

This course provides practical and safe application of hand, portable power, stationary and pneumatic tools, use of building materials, fasteners and adhesives, and job site safety. Emphasis is placed on the safe use of hand, power, and pneumatic tools, proper selection of lumber, plywood, byproducts, nails, bolts, screws, adhesives, fasteners, and other construction materials, and job safety. Upon course completion, the student should be able to identify hand, power, stationary and pneumatic tools and demonstrate their safe use; identify and properly select wood and non-wood building products, and properly use nails, fasteners and adhesives.

**CAR 121 INTRODUCTION TO BLUEPRINT READING 3 HOURS**

*Prerequisite(s):* As required by program

This course introduces the student to the basic concepts of blueprint reading. Topics include scales, symbols, site plans, and notations. Upon completion, the student should be able to identify drawings, scale various drawings, identify different types of lines, symbols, and notations.

**CAR 122 CONCRETE AND FORMING 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program

This course introduces the student to the properties and uses of concrete and to the procedures for designing concrete forms. Topics include making and pouring concrete, constructing concrete forms, reinforcement methods, finishing concrete, and job safety. Upon course completion, students are expected to be able to list safety rules for the job site, identify components of concrete, describe how concrete forms are built, and how concrete is poured, reinforced, and finished.

**CAR 123 CONCRETE AND FORMING LAB 3 HOURS**

*Prerequisite(s):* CAB 111 and/or as required by program  
*Co-requisite(s):* CAR 122

This course provides students with practical experience in concrete applications. Emphasis is placed on job site safety, concrete forming, mixing, pouring, finishing, and reinforcing. Upon completion, students should be able to safely, set forms, reinforce, mix, pour, and finish concrete.

**CAR 124 WALL AND FLOOR SPECIALTIES 3 HOURS**

*Prerequisite(s):* As required by program

This course introduces the student to the use of structural steel and metal studs in walls and floors. Emphasis is placed on wall and floor construction. Upon completion, students are expected to be able to describe components and proper application of structural steel, properly construct walls and floors, and demonstrate proper uses of metal studs and framing members.

**CAR 131 ROOF AND CEILING SYSTEMS 3 HOURS**

*Prerequisite(s):* As required by program

This course focuses on the design and installation of roof and ceiling systems. Emphasis is placed on rafters, trusses, ceiling joists, roof decking, and roofing materials. Upon completion, students should be able to design a roof and ceiling system, identify proper installation methods of roofing materials, and describe applicable safety rules.

**CAR 132 INTERIOR AND EXTERIOR FINISHING 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program

This course introduces the student to interior and exterior finishing materials and techniques. Topics include interior trim of windows and doors, ceilings and wall moldings, exterior sidings, trim work, painting, and masonry finishes. Upon completion the students should be able to identify different types of doors, windows and moldings and describe the uses of each, identify types of exterior sidings and trim, and describe the different types of paint and their proper application.

**CAR 133 ROOF CEILING SYSTEMS LAB 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program

*Co-requisite(s):* CAR 131 and/or as required by program

The course provides students with practical experience in building and installing roof and ceiling systems. Emphasis is placed on job site safety, layout and cutting of rafters and joists, cutting and building trusses, installing roof decking and roofing materials. Upon completion, the student should be able to cut and install rafters, joists and trusses, cut and apply roof decking and roofing materials, and apply safety rules for job site.

**CAR 211 CONSTRUCTION SPECIALTIES 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program

This course introduces the students to the design process for stairs and cabinets. Topics include stair and cabinet design, rod layout, and cabinet finishes. Upon completion the student should be able to design stairways and cabinets, layout a rod for building cabinets, and identify proper finishes for cabinetry.

**CAR 212 CONSTRUCTION SPECIALTIES LAB 3 HOURS**

*Prerequisite(s):* CAR 111 and/or as required by program

*Co-requisite(s):* CAR 211 and/or as required by program

This course provides students with practical experience in building stairs and in building and finishing cabinets. Emphasis is placed on stair construction, cabinet joints and layout, finishes for cabinets, and proper safety precautions. Upon course completion, students should be able to safely construct stairs, build cabinets and apply proper finishes.

**CAR 213 PLANS, SPECIFICATIONS AND CODES 3 HOURS***Prerequisite(s): As required by program*

This course provides students experience in house plans, specifications, and building codes. Upon completion, the student should be able to read and draw a set of plans, list and use specifications to order materials, and use codes to plan location and safety of structures.

**CAR 217 ESTIMATING 3 HOURS***Prerequisite(s): CAR 111, 121, and/or as required by program*

This course provides the student with technical knowledge to estimate construction materials and costs for preparing order sheets or bids on construction jobs. Emphasis is placed on techniques for estimating jobs. Upon completion, the student should be able to develop a comprehensive estimate for a carpentry job.

**COMMERCIAL FOODS SERVICE (CFS)****CFS 101 ORIENTATION TO THE FOOD SERVICE INDUSTRY 1 HOUR***Prerequisite(s): As required by program*

This course is an introduction to the food service industry and employment opportunities. This course focuses on the different types of food service/hospitality outlets. Upon completion of this course, the student will be knowledgeable of business and career opportunities within the food service industry.

**CFS 102 CATERING 2 HOURS***Prerequisite(s): As required by program*

This course includes the theory and practice of operating a catering business. Topics include food production and management related to catering and other special services. Upon completion, the student will have a working knowledge of the principles involved in operating a catering business.

**CFS 110 BASIC FOOD PREPARATION 3 HOURS***Prerequisite(s): CFS 101, 111, 114, and/or as required by program*

This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Topics include scientific principles of food preparation and the relationship of food composition and structure to food preparation. Students will develop competencies in food preparation as it relates to the food service industry.

**CFS 111 FOUNDATIONS IN NUTRITION 3 HOURS***Prerequisite(s): As required by program*

This course focuses on nutrition and meal planning in relation to the food preparation industry. Topics include the science food and nutrition, essential nutrients and their relation to the growth, maintenance and functioning of the body, nutritional requirements of different age levels and economic and cultural influences on food selection. Upon completion of this course, students will be able to apply the basic principles of meal planning.

**CFS 112 SANITATION, SAFETY, AND FOOD SERVICE 2 HOURS***Prerequisite(s): As required by program*

This course introduces the basic principles of sanitation and safety to food handling including purchasing, storing, preparing, and serving. Topics include the scientific principles of food sanitation, food spoilage, food-borne disease, personal health and hygiene, and the sanitary care of the physical plant and equipment. Upon completion of this course students will be able to demonstrate an understanding of sanitation and safety procedures related to H.A.C.C.P. regulations and the implementation of H.A.C.C.P. systems.

**CFS 113 TABLE SERVICE 2 HOURS***Prerequisite(s): As required by program*

This course is a guide for the modern wait staff. Topics include laying the cover, taking the order, surveying of different styles of table service from the casual to the very formal, tabulating and presenting the bill, and busing and turning the table. Upon completion of this course, students should be able to demonstrate proficiency in the art of table service.

**CFS 114 MEAL MANAGEMENT 3 HOURS***Prerequisite(s): CFS 101, 110, 111, 112, and/or as required by program*

This course covers the principles of meal management. Topics include menu planning, food selection, recipe standardization, food preparation, and meal service for all phases of food service. Upon completion of this course, students will be able to apply efficient work habits, sanitation and safety in the kitchen.

**CFS 141 FOOD PRODUCTION FOR SPECIAL OPERATIONS 2 HOURS***Prerequisite(s): As required by program*

This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations.

**CFS 201 MEAT PREPARATION AND PROCESSING 2 HOURS***Prerequisite(s): As required by program*

This course focuses on meat preparation and processing. Students will be responsible for the preparing of meats including beef, pork, poultry, fish, and seafood so they can be used for final preparations in the other stations of the kitchens. Upon completion, students will be able to demonstrate an understanding of the principles in meat preparation and processing.

**CFS 204 FOUNDATIONS OF BAKING 3 HOURS***Prerequisite(s): As required by program*

This course covers basic ingredients, weights and measures, baking terminology, and formula calculations. Topics include yeast-raised products, quick breads, pastry dough, various cakes and cookies, and appropriate filling and finishing techniques. Upon completion, students should be able to prepare and evaluate baked products.



**CMS 123      ADVANCED APPLIED      3 HOURS**  
**PRODUCTION***Prerequisite(s): As required by program*

In this course, students use advanced apparel construction techniques. Emphasis is placed on apparel construction machinery developing speed and accuracy while constructing apparel. Upon completion, students should be able to operate apparel construction machinery with speed and accuracy while constructing apparel.

**CMS 130      INTRODUCTION TO TEXTILES      3 HOURS***Prerequisite(s): CMS 131 and/or as required by program*

This course introduces students to the essential concepts and principles of the textile industry and the development of textile fabrics. Topics include basic terminology, fundamental fabric analysis, natural and manufactured fibers, general textile properties, yarns, construction, preparation, coloration, finishings, laws, and regulations. Upon completion, students should know and be able to apply terminology, regulations, textile characteristics and operations of the textile industry as well and be able to identify fabrics for end use.

**CMS 131      TEXTILE ANALYSIS AND      2-3 HOURS**  
**TESTING***Prerequisite(s): CMS 130 and/or as required by program*

In this course, students test and analyze apparel and home furnishing textiles. Topics include semi-technical tests to determine the composition and other properties of fabrics and examine fabrics. Upon completion, students should be able to identify face and back of fabric, the fabric content and construction, the end use of fabric, and the fabric characteristics and suitability.

**CMS 140      CONSUMER/CULTURAL      3 HOURS**  
**ASPECTS OF CLOTHS***Prerequisite(s): As required by program*

This course provides an overview of consumer aspects of clothing selection, as well as the psychological, cultural, historical and aesthetic factors of clothing and textiles. Emphasis is placed on evolution of fashion, advertising and promotion in retail marketplace, cultural perspectives, psychology of color, and design style analysis. Upon completion, students should be able to make decisions in clothing selection and construction aesthetics pertaining to the function of the end product.

**CMS 141      APPAREL DESIGN      3 HOURS***Prerequisite(s): As required by program*

This course allows students to use various techniques and fabrics in designing apparel. Topics include pattern drafting, pattern grading, fabric selections and the application of design techniques. Upon completion, students should be able to develop and execute creative designs using various fabrics.

**CMS 143      QUALITY CONTROL      3 HOURS**  
**TECHNIQUES***Prerequisite(s): As required by program*

This course emphasizes industry standards of quality and production. Topics include apparel structure, aesthetics, costs, expected performance of the finished product, imports and quick response to the market. Upon completion, students should be able to evaluate the quality of apparel, calculate costs, demonstrate speed and accuracy, and understand the impact of imports and competition.

**CMS 145      BASIC TAILORING AND      3 HOURS**  
**ALTERATIONS***Prerequisite(s): As required by program*

This course focuses on basic tailoring and alterations techniques in constructing and remodeling garments. Topics include proper techniques in simple to complex alterations. Upon completion, students will demonstrate skills in garment alterations, adjusting and filling garments, and be able to properly construct a tailored sports jacket.

**CMS 146      ADVANCED TAILORING      3 HOURS**  
**AND ALTERATIONS***Prerequisite(s): As required by program*

This course focuses on simple to advanced tailoring and alterations techniques. Included are techniques in fitting and remodeling a garment and making lined apparel for men and women. Upon completion, students should be able to remodel and fit garments and apply appropriate techniques of tailoring in making lined/tailored apparel for men and women.

**CMS 148      ACCESSORIES      3 HOURS**  
**AND RELATED MERCHANDISING***Prerequisite(s): As required by program*

This course introduces students to fashion accessories and related materials, manufacturing, and merchandising. Topics include buying functions, supporting services, fashion entrepreneurship, auxiliary services, retailing and wholesaling. Upon completion, students should understand concepts and practices applicable to different levels of the fashion industry.

**CMS 150      APPAREL PRODUCTION      3 HOURS**  
**MANAGEMENT***Prerequisite(s): As required by program.*

This course introduces students to apparel production management procedures. Topics include the fundamental operations of manufacturing, employee/employer relationships, productivity enhancement, quality control, and efficiency. Upon completion, students should be able to apply apparel production management techniques.

**CMS 160      PATTERN ADJUSTMENTS      3 HOURS**  
**AND FITTING***Prerequisite(s): As required by program*

This course provides the fundamentals of fitting and pattern adjusting. Emphasis is placed on analyzing figure proportions, shapes, contours, and profiles as it applies to applications. The comparison of method of fitting, pattern alterations and grading. Upon completion, students should be able to apply the fundamental techniques in figure analysis, fitting and pattern adjusting.

**CMS 181/182      SPECIAL TOPICS      3 HOURS**  
**IN COMMERCIAL SEWING***Prerequisite(s): As required by program*

These courses provide specialized instruction in various areas related to the commercial sewing industry. Emphasis is placed on meeting students' needs.

**CMS 183      COMPUTER AIDED      3 HOURS**  
**FASHION DESIGN***Prerequisite(s): As required by program*

In this course, students learn to use computer software applicable to fashion design. Topics include the use of computer and software related to apparel designs and

construction. Upon completion, students should be able to design apparel utilizing appropriate software.

**CMS 190 WINDOW TREATMENTS 3 HOURS**

*Prerequisite(s): As required by program*

This course focuses on the fundamentals of planning and producing window treatments. Topics include planning for window treatments and the construction of draperies, curtains, windows and headings. Upon completion, students should be able to plan and construction window treatments.

**CMS 1691 SOFT INTERIOR AND FITTINGS 3 HOURS**

*Prerequisite(s): As required by program*

This course focuses on basic interior decorating and the production of soft interior furnishings. Topics include basic window treatments, quick pillows, slipcovers, table decoration, and the construction of soft good items for the home or business. Upon completion, students should be able to select fabric and construct soft interior furnishings.

**CMS 192 SOFT INTERIOR FURNISHINGS CONSTRUCTION LAB 3 HOURS**

*Prerequisite(s): As required by program*

In this course, students apply principles of interior decorating and the production of soft interior furnishings. Topics include the window treatments, and other soft items for the home such as pillows and table clothes. Upon completion, students should be able to select fabrics appropriate for soft interior goods and construct soft interior furnishings.

**COMMUNICATIONS (COM)**

**COM 100 INTRO TECHNICAL ENGLISH I 3 HOURS**

*Prerequisite(s): Satisfactory placement score*

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling with substantial focus on occupational performance requirements. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace.

**COMPUTER SCIENCE (CIS)**

**CIS 121 NETWORKING I 3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to introduce basic network administration. The basics of network administration, installing and maintaining network software on a server, installation of applications on the server and how the networks are made ready for users are covered. Upon completion, students will demonstrate the ability to administer a computer network.

**CIS 130 INTRODUCTION TO INFORMATION SYSTEMS 3 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to computers that reviews computer hardware and software concepts such as equipment, operations, communications, programming and their past, present and future impact on society. Topics include computer hardware, various types of computer software, communication technologies and program development using computers to execute software packages and/or to write simple programs. Upon completion, students should be to describe and use the major components of selected computer software and hardware.

**CIS 134 COMMON BUSINESS (COBOL) PROGRAMMING ORIENTED LANGUAGE 3 HOURS**

*Prerequisite(s): CIS 132 and/or as required by program.*

This course is an introduction to business programming using COBOL language and structured programming techniques. Emphasis is placed upon nested IF statements, single and multi-level control breaks and table processing. Students enrolled in this course are expected to spend two practice hours per week in the computer laboratory.

**CIS 135 INTERNET PROGRAMMING 3 HOUR**

*Prerequisite(s): As required by program*

This course focuses on Web-Site Programming software and requires the students to create their own web site using some of the most popular web software. Students will be required to demonstrate web-authoring proficiency through tests and programming projects. This course should be repeatable to allow for future web-authoring software releases.

**CIS 140 BASIC WEB PAGE DEVELOPMENT 3 HOURS**

*Prerequisite(s): As required by program*

This course introduces HyperText Markup Language (HTML 1.0, 2.0, and 3.0) used for World Wide Web page authoring. Using HTML and authoring tools, the student will create web pages that include: text emphasis, lists, nested lists, graphics, URL links, combined formatting and list tags, image maps, forms, tables, and multimedia objects. The Common Gateway Interface (CGI), PERL, and Java-script programming languages will be introduced.

**CIS 145 ADVANCED WEB PAGE DEVELOPMENT 3 HOURS**

*Prerequisite(s): CIS 140 and/or as required by program*

This course is a continuation of CIS 140 and will cover such advanced topics as Java-script, Dynamic HTML, Java Applets, style sheets, and creating interactive web pages and sites.

**CIS 146 MICROCOMPUTER APPLICATIONS 3 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to the most common software applications of microcomputers and includes "hands-on" use of microcomputers and some of the major commercial software. These software packages should include typical features of office suites, such as word processing, spreadsheets, database systems, and other features found in current software packages. Upon completion, students will understand common

applications and be able to utilize selected features of these packages.

**CIS 147                    ADVANCED MICRO                    3 HOURS**  
**APPLICATIONS**

*Prerequisite(s):*    *CIS 130, 146, and/or as required by program*

This course is a continuation of CIS 146 in which students utilize the advanced features of topics in CIS 146 and introduce additional topics of office suite software. Advanced features of word processing, spreadsheets, database, presentation packages among other topics are generally incorporated into the course and are to be applied to situations found in society and business. Upon completion, the student should be able to apply the advanced features of selected software appropriately to typical problems found in society and business.

**CIS 150                    COMPUTER PROGRAM                    3 HOURS**  
**LOGIC**

*Prerequisite(s):*    *As required by program*

This course includes logic and design techniques used by programmers and analysts in developing programming code. The most commonly used techniques of flowcharts, structure charts, and pseudocode will be covered. The student will be able to apply the techniques to designated situations and problems.

**CIS 151                    GRAPHICS FOR WORLD                    3 HOURS**  
**WIDE WEB**

*Prerequisite(s):*    *As required by program*

Graphics are as important to the World Wide Web as is the written word. This course will provide an overview to the theory, tools, and techniques necessary for creating high-quality graphics using Adobe Photoshop. *This course may be substituted with CAT 150 Imaging I: Principles of Photography and Introduction to Photoshop and CAT180 Imaging II: Techniques of Photoshop and Painter.*

**CIS 156                    MICROCOMPUTER                    3 HOURS**  
**OPERATING SYSTEMS**

*Prerequisite(s):*    *CIS 130 and/or as required by program*

This course provides an introduction to microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with the aid of its system programs. Upon completion, students should understand the function and role of the operating system, its operational characteristics, its configuration, how to execute programs, and efficient disk and file management.

**CIS 160                    MULTIMEDIA FOR THE                    3 HOURS**  
**WORLD WIDE WEB**

*Prerequisite(s):*    *As required by program*

This course covers contemporary, interactive multimedia technology systems, focusing on types, applications, and theories of operation. In addition to the theoretical understanding of the multimedia technologies, students will learn how to digitize and manipulate images, voice, and video materials, including authoring a web page utilizing multimedia.

**CIS 161                    CISCO I    3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is the first part of a four-part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This

course concentrates on the physical part of networking including basic electronics, computer basics, network basics, addressing, number conversions, cabling, and planning. After completing this course the student will be able to: identify the functions of each layer of the OSI reference model; describe data link and network addresses; define and describe the function of the MAC address; explain the five conversion steps of data encapsulation; describe the different classes of IP addresses and subnetting; identify the functions of the TCP/IP network-layer protocols.

**CIS 162                    CISCO II    3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is the second part of a four-part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on router configuration. After completing this course the student will be able to: prepare the initial configuration of a router and enable IP; control router passwords and identification; configure IP addresses; add the RIP and IGRP routing protocols to a configuration.

**CIS 163                    CISCO III    3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is the third part of a four-part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on LAN design, routing, switching, and network administration. After completing this course the student will be able to: describe LAN segmentation using bridges, routers, and switches; distinguish between cut-through and store and forward LAN switching; describe the operation of the Spanning Tree Protocol and its benefits; describe the benefits of virtual LANs.

**CIS 164                    CISCO IV    3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is the fourth part of a four-part curriculum leading to Cisco Certified Network Associate (CCNA) certification. This course concentrates on WANs and WAN design. After completing this course the student will be able to: differentiate between LAPB, Frame Relay, ISDN, HDLC, PPP, and DDR; list commands to configure Frame Relay LMIs, maps, and subinterfaces; identify PPP operations to encapsulate WAN data on Cisco routers; identify ISDN protocols, function groups, reference points, and channels; describe Cisco's implementation of ISDN BRI.

**CIS 170                    FUNDAMENTALS OF                    3 HOURS**  
**COMPUTER NETWORKING**

*Prerequisite(s):*    *As required by program*

Adding to the rapid pace of automation and computerization is the need forever increasing connectivity. The introduction of digital transmission technologies combined with the advent of inexpensive computing power has resulted in an explosion of features and services and a bewildering range of communications strategies. This course provides the technical foundations and skills necessary to understand local area networks, data transmission, network operating systems and protocols, and client/server concepts.

**CIS 175                    SYSTEM ANALYSIS AND                    3 HOURS**  
**DESIGN FOR THE INTERNET**

*Prerequisite(s):*    *As required by program*

This course will cover the design, implementation, and performance of computer networks. Topics will include: the

Internet protocols and routings, local area networks, ATM networks, quality of service, performance analysis, queuing theory, congestion control, broadcast and multicast, and network security.

**CIS 185 ETHICS AND THE INTERNET 3 HOURS**

*Prerequisite(s): As required by program*

This course will investigate the various issues and facets of Computer Crime and Computer Ethics. Topics to be covered and discussed include: general ethics, privacy, data protection, employee privacy, data regulation, artificial intelligence, information technology and the third world, the "look-and-feel" issue, computer malfunction liability, computer crime (electronic trespassing), and the Professional Responsibility of the Computer User.

**CIS 187 MARKETING ON THE WORLD WIDE WEB 3 HOURS**

*Prerequisite(s): As required by program*

Technological change has provided businesses with tremendous opportunities for increasing the efficiency and effectiveness of many activities. By using the tools of the Internet, businesses have taken information and information sharing to new levels, transforming the very core of business. This course will examine how the Internet has changed business with an emphasis on increasing a professional's ability to use and understand the tools of the Internet.

**CIS 189 CO-OP FOR CIS I 3 HOURS**

*Prerequisite(s): As required by program*

This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

**CIS 190 INTRODUCTION TO COMPUTERS 3 HOURS**

*Prerequisite(s): College algebra and/or as required by program*

This course is an overview of computer information systems in problem solving. It includes a study of the interaction of hardware, software and human resources and the fundamentals of programming and structured design using high-level programming language are presented. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 196 COMMERCIAL SOFTWARE APPLICATIONS 1-3 HOURS**

*Prerequisite(s): As required by program*

This is a "hands-on" introduction to software packages, languages, and utility programs currently in use, with the course being able to repeat for credit for each different topic being covered. Emphasis is placed on the purpose capabilities and utilization of each package, language or program. Upon completion, students will be able to use the features selected for the application covered.

**CIS 197 ADVANCED COMMERCIAL SOFTWARE APPLICATIONS 1-3 HOURS**

*Prerequisite(s): CIS 196 and/or as required by program*

This course provides the student with hands-on experience in using the advanced features of software packages, languages, and utility programs currently in use. Each offering focuses on one software package with credit being received for each different package. Upon completion, students will be able to use the features selected for the application covered.

**CIS 198 WEB DEVELOPMENT 3 HOURS**

*Prerequisite(s): CIS 130 and/or as required by program*

This course is an introduction to Web page development techniques. Topics in this course include HTML, scripting languages and commercial software packages used in the development of Web pages. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of Web page development projects and appropriate tests.

**CIS 202 LOCAL AREA NETWORK BASICS 3 HOURS**

*Prerequisite(s): CIS 266, 267 and/or as required by program*

This course provides the student with an overview of personal computer networks, equipment, and networking software. Students enrolled in this course are expected to spend two practice hours per week in the computer laboratory.

**CIS 212 VISUAL BASIC 3 HOURS**

*Prerequisite(s): CIS 130, 190, 211 and/or equivalent background*

This course is a continuation of CIS 211, with emphasis being on BASIC programming using a graphical user interface. The course will emphasize graphical user interfaces with additional topics on such topics as advanced file handling techniques, simulation, and other selected areas. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 213 ADVANCED BASIC PROGRAMMING 3 HOURS**

*Prerequisite(s): CIS 212 and/or as required by program*

This course is a continuation of CIS 212, Basic Programming.

**CIS 237 ESSENTIALS OF NETWORKING 3 HOURS**

*Prerequisite(s): As required by program*

This course serves as a general introduction for students who desire to acquire a foundation in current network technologies for local area networks (LANs), wide area networks (WANs), and the Internet. The course provides an introduction to the hardware, software, terminology, components, design, and connections of a network, as well as the topologies and protocols for LANs. This course maps directly to CompTIA's Network+ exam.

**CIS 238 WINDOWS 2000 3 HOURS**

*Prerequisite(s): As required by program*

This course provides students with the knowledge and skills necessary to perform installation and day-to-day administrative tasks in a Windows 2000 Professional environment. Students will manage hardware profiles and user/group accounts. This

course also introduces various tools, including the Microsoft Management Console, Task Scheduler, Control Panel, the registry, and Device Manager for configuring and troubleshooting devices.

**CIS 250 E-COMMERCE 3 HOURS**

*Prerequisite(s): CIS 130 and Web related computer experience.*  
This course is an introduction to e-commerce. The topics included in this course are creating a successful Web presence, building an electronic commerce store, electronic security, electronic payment systems, and electronic commerce environment. Upon completion, the student will be able to demonstrate knowledge of e-commerce through the completion of assignments and appropriate tests.

**CIS 251 C PROGRAMMING 3 HOURS**

*Prerequisite(s): CIS 130, 190, and/or as required by program*

This course is an introduction to the C programming language. Included in this course are topics in an algorithmic approach to problem solving, structured programming techniques and constructs, using functions and macros, simple data structures, and using files for input and output. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 252 ADVANCED C PROGRAMMING 3 HOURS**

*Prerequisite(s): CIS 251 and/or as required by program*

This course is a continuation of the CIS 251 course in C programming. Techniques for the improvement of application and systems programming will be covered and other topics may include memory management, C Library functions, debugging, portability, and reusable code. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 253 WINDOWS NT ENTERPRISE 3 HOURS**

*Prerequisite(s): As required by program*

This course is intended for network support professionals who intend to work in a Microsoft Windows NT Server 4.0 based enterprise environment. This course will enable students to design, implement, and support the Windows NT Server network operating system in a multidomain enterprise environment. At the completion of this series, students will be able to: implement Directory Services structure for a given business situation; identify the issues involved in planning an effective Directory Services structure for an organization running Windows NT Server 4.0; identify the features of Windows NT Server resources, Performance Monitor, and the techniques for server analysis and optimization; create a measurement baseline by collecting data, create log files and view the reports of the log files; monitor system objects to detect various system bottlenecks; identify the issues to be considered for setting expectations from Windows NT Server and determine the need for an additional server; identify the system bottlenecks and resource implications in different environments; analyze network traffic; analyze and optimize the client initialization traffic and client-to-server; analyze and optimize server-to-server network traffic; identify the network generated in various scenarios in a Windows NT 4.0 environment; identify the functions of the Kernel Mode networking components and Distributed Networking

Components; identify the registry structure and subtrees and configuration information about the local machine; identify the functions of the processes in every boot phase and troubleshoot through system files; troubleshoot RAS problems, resources access and permission problems, recover a mirror set and stripe set with parity; install and configure a Window NT Server; install and configure Internet services and Remote Access Service; configure Windows NT Server for interoperability with a NetWare server from client computers; install and configure Remote access services (RAS) server, and manage RAS security; manage accounts, user profiles and system policies.

**CIS 254 BASIC ROUTER TECHNOLOGY 3 HOURS**

*Prerequisite(s): CIS 273 and/or as required by program*

This course is designed to prepare a student to apply and understand the basics of networking hardware. The course covers beginning router configurations, routed and routing protocols, and an introduction to LAN switching.

**CIS 255 JAVA PROGRAMMING 3 HOURS**

*Prerequisite(s): CIS 130 or equivalent.*

This course is an introduction to the Java programming language. Topics in this course include object-oriented programming constructs, Web page applet development, class definitions, threads, events and exceptions. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 256 NETWORKING ESSENTIALS/ TECHNOLOGY 3 HOURS**

*Prerequisite(s): As required by program*

This three part series serves as an introduction for students who need a foundation in current networking technology for Local Area Networks (LANs), Wide Area Networks (WANs), and the Internet. At the completion of this series, students will be able to: describe the uses, components, and types of networks; describe network architecture with reference to the OSI model, the connection services offered by the OSI model layers, protocols, and standard interfaces; select the transmission media and connectivity hardware appropriate for a given site; describe network communication with reference to packets, data access methods, network adapter cards, and network drivers; select the appropriate topology, network protocols, media, and connectivity devices for Ethernet and Token Ring networks; list the functions, components, and steps of installing a Network Operating System; manage printers and modems in network communications; describe the features and functions of E-Mail, Groupware and Scheduling; identify solutions for interoperability in multivendor model; describe the client/server networking model; describe the types of WAN transmission techniques, WAN transmission technologies, and Microsoft Network Service Access Providers; manage network accounts, performance, and security; describe troubleshooting techniques for different network problems.

**CIS 257 NETWORK ADMINISTRATION 3 HOURS**

*Prerequisite(s): CIS 273 and/or as required by program*

This course introduces the basics of managing a NetWare 4 network. NetWare 4 eliminates the boundaries in business-wide networks, regardless of their size or complexity and

teaches students how to use NetWare administrative tools to set up, manage, and use basic network services including file systems, networking printing, security and E-Mail. After completing this course students will be able to: add users to the network; execute network applications and share software resources; make accessing the network seem invisible to users; set up and manage the network file system; provide transparent access to information and resources anywhere on the network; use a multicontext NetWare Directory Services (NDS) environment; set up and manage network printing; create effective network security; back up and restore NetWare server data; set up and manage NetWare messaging services.

**CIS 258**                      **WINDOWS**                      **3 HOURS**  
**ADMINISTRATION**

*Prerequisite(s):* As required by program

This two-part series provides the knowledge and skills necessary to perform post-installation and day-to-day administration tasks in a single-domain and multiple-domain Windows NT 4.0 based network. At the completion of this series, students will be able to: identify the features of Windows NT 4.0 interface; create and customize user and group accounts and configure the user environments; manage and secure resources with shared folders and NTFS permissions; create and administer network printers; audit and monitor the server resources; make backups and restore data from a tape.

**CIS 259**                      **INSTALLATION AND**                      **3 HOURS**  
**CONFIGURATION**

*Prerequisite(s):* As required by program

This course is designed to enhance hands-on experience installing and configuring a NetWare 4 network. Scenarios for upgrading, migrating and installing teach students how to implement a different design of the NDS tree structure. After completing this course students will be able to: upgrade from NetWare 3 to NetWare 4; install NetWare 4 servers; configure basic network resources in NDS; perform a complex NDS configuration; merge two NDS trees; troubleshoot NDS; manage the NetWare for Macintosh; install Novell online documentation.

**CIS 260**                      **WINDOWS NT**                      **3 HOURS**  
**TECHNICAL SUPPORT**

*Prerequisite(s):* As required by program

This four-part series is intended for network support professionals who will install, configure, customize and support Microsoft Windows NT Server 4.0. This series will prepare the foundation for supporting Microsoft Windows Server 4.0 in a single domain environment. At the completion of this series, students will be able to: describe the Windows NT environment, its architecture and the network models; install and configure Windows NT; create user profiles and manage System Policies; describe the Windows NT files systems, manage partitions and configure the hard disk; protect server data using various Windows NT fault tolerance levels; identify the subsystems responsible for supporting applications; install and configure to TCP/IP, NWLink and NetBEUI protocols, install and configure Internet Information Server and the Microsoft Internet Explorer; identify the steps in the Windows NT printing process, configure network printers, use different utilities and troubleshooting common printing problems; replicate directories using the Directory Replicator service;

monitor system performance and use the various Windows NT utilities to monitor system information.

**CIS 261**                      **WINDOWS 2000 SERVER**                      **3 HOURS**  
**NETWORK INFRASTRUCTURE**  
**ADMINISTRATION**

*Prerequisite(s):* As required by program

This course provides the knowledge and skills necessary to plan network infrastructure around features supported by Windows 2000. Issues such as network protocol and services are introduced and compared using requirements of students' organizations. Students will learn how to utilize, manage, and configure the TCP/IP protocol and use features such as NetBIOS, WINS, DHCP, and DNS. Students will also learn how to configure, manage, and troubleshoot routing and remote access, including setting up virtual private networks (VPNs).

**CIS 262**                      **WINDOWS 2000 ACTIVE**                      **3 HOURS**  
**DIRECTORY SERVICES**

*Prerequisite(s):* As required by program

This course provides students with the knowledge and skills necessary to plan, configure, and administer an Active Directory infrastructure. Students will learn to configure Domain Name System (DNS) to manage name resolution, schema, and replication. Students will also learn to use Active Directory to centrally manage users, groups, shared folders, and network resources, and to administer the user environment and software with group policy.

**CIS 263**                      **ADVANCED NETWORK**                      **3 HOURS**  
**ADMINISTRATION**

*Prerequisite(s):* As required by program

This course is designed to develop advanced administration skills such as performance tuning for the network and server, and managing complex tree structures. Students will learn how to oversee a complex NetWare 4 networking environment, including NetWare Directory Services (NDS) partitioning and replication, time synchronization strategies and integrating with NetWare 3. After completing this course students will be able to: manage a complex NDS tree structure; combine two NDS trees; move NDS containers, secure NDS resources; integrate diverse network services; add advanced network services; integrate and manage NetWare 3 resources using NetWare 4 utilities; performance tune the network and NetWare 4 server.

**CIS 264**                      **BUSINESS APPLICATIONS**                      **3 HOURS**

*Prerequisite(s):* CIS 206, 215, and/or as required by program

Prior programming training is put to use in implementing a practical business application such as accounts receivable, accounts payable, payroll, or other business system. A different application is selected each semester. Instructor will provide student with the necessary data and the student will create all the programs that are necessary to produce the expected results. This course will require outside laboratory time to produce programs for evaluation. Mastery of the language selected for the study, at the desired level, is required.

**CIS 265**                      **DESIGN IMPLEMENTATION**                      **3 HOURS**

*Prerequisite(s):* As required by program

This course affords opportunities to design and create a NetWare 4.1 implementation plan for a case company. After completing this course students will be able to: design, analyze and integrate a NetWare 4 implementation; determine director

tree structure and object placement; form partition boundaries; plan replica placement; create a time synchronization strategy; develop an administration accessibility strategy that includes NetWare Directory Services (NDS) object creation and security; integrate NetWare services that include routing services and diverse client needs; develop a migration strategy for clients and servers; create an implementation schedule for integrating your NetWare 4.1 design.

**CIS 266                    COMPUTER SOFTWARE                    3 HOURS  
AND PROBLEM INSTALLATION  
DETERMINATION**

*Prerequisite(s):*    *CIS 130 and/or as required by program*

This course provides the student with hands-on practical experience in the installation of computer software, operating systems, and trouble-shooting. It covers IBM compatible PC software. Students enrolled in this course are expected to spend two practice hours per week in the computer laboratory.

**CIS 267                    COMPUTER HARDWARE                    3 HOURS  
PROBLEM DETERMINATION**

*Prerequisite(s):*    *CIS 130 and/or as required by program*

This course provides the student with hands-on practical experience in equipment operations and trouble-shooting. The course covers IBM compatible PC hardware terminology and components. Routine replacement of parts and microcomputer configuration is covered. Students enrolled in this course are expected to spend two practice hours per week in the computer laboratory.

**CIS 269                    NETWARE TCP/IP                            3 HOURS  
TRANSPORT**

*Prerequisite(s):*    *As required by program*

This course is designed for hands-on experience installing and configuring NetWare TCP/IP software on a NetWare 4 server. Students will learn how to use common problems that may occur in a TCP/IP environment. After completing this course students will be able to: install and configure NetWare TCP/IP on a NetWare 4 server; troubleshoot problems that arise in the TCP/IP environment; monitor the server; load the TCP/IP NetWare Loadable Module (NLM); route IPX packets over IP internet work.

**CIS 270                    TCP/IP    3 HOURS**

*Prerequisite(s):*    *As required by program*

This course provides students with the knowledge and skills required to setup, configure, use and support Transmission Control Protocol/Internet Protocol (TCP/IP) on Microsoft Windows NT 4.0. At the completion of this series students will be able to: define TCP/IP and describe its advantages on Windows NT 4.0; install and configure Microsoft TCP/IP; identify the network and host ID; identify the function of a subnet mask; identify the difference between static and dynamic IP routing; configure a computer running Windows NT 4.0 to function as a dynamic IP router; understand how a dynamic host configuration protocol (DHCP) client obtains IP addresses from a DHCP server; install and configure a DHCP relay agent; backup and restore a DHCP database; describe the types of series provided by NetBIOS over TCP/IP; explain how the HOSTS file resolves a host name to an IP address on local and remote networks; install and configure a WINS server; backup and restore the WINS database; explain the Windows NT browsing service; describe the domain logon, account password changes, and domain synchronization process;

integrate DNS with WINS Lookup and non-Microsoft servers; troubleshoot DNS with NSLOOKUP; use Microsoft TCP/IP utilities to connect to and access resources on a TCP/IP-based Unix host; understand the purpose of simple network management protocol (SNMP); define management information base (MIB); use Windows NT utilities for diagnosing problems; troubleshoot an IP network using TCP/IP utilities.

**CIS 271                    ASSEMBLY LANGUAGE                    3 HOURS  
PROGRAMMING**

*Prerequisite(s):*    *CIS 130, 190, and/or as required by program*

This course is a study of assembly language. It includes such topics as instruction syntax, addressing techniques, and digital representation of data. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 272                    DESIGNING WINDOWS                    3 HOURS  
2000 SECURITY**

*Prerequisite(s):*    *As required by program*

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks using Microsoft Windows 2000. Students will be able to plan an Active Directory service structure that facilitates secure and verifiable user account creation and administration; define security requirements for Windows 2000-based domain controllers, application servers, file and print servers, and workstations.

**CIS 273                    NETWORKING AND DATA                    3 HOURS  
COMMUNICATIONS**

*Prerequisite(s):*    *CIS 156 or equivalent and/or as required by program*

This course is an introduction to computer networks and data communications technology. Topics included in this course are networking and communications hardware, software, topologies, models and protocols. Upon completion, the student will be able to demonstrate knowledge of the topics through completion of assignments and appropriate tests.

**CIS 274                    ADVANCED ROUTER                            3 HOURS  
TECHNOLOGY**

*Prerequisite(s):*    *CIS 254 and/or as required by program*

This course is designed to prepare a student to apply and understand the advanced principles and applications of networking hardware. The course covers advanced router configurations, LAN switching, network management, and advanced network issues.

**CIS 276                    SERVER ADMINISTRATION                    3 HOURS**

*Prerequisite(s):*    *CIS 273 and/or as required by program*

This course provides a study of network operating system administration. Topics included in this course are network software installation, user account management, security control, and network resource management. Upon completion, the student will be able to demonstrate knowledge of the topics through completion of lab exercises and appropriate tests.

**CIS 277                    NETWORK SUPPORT                            3 HOURS**

*Prerequisite(s):*    *CIS 273 and/or as required by program*

This course provides a study of network configuration and support. Topics included in this course are installing and

configuring network operating system software, services, and protocols, file system management, application support, and troubleshooting. Upon completion, the student will be able to demonstrate knowledge of the topics through completion of assignments and appropriate tests.

**CIS 278                    COMPUTER                    3 HOURS**  
**OPERATING SYSTEMS**

*Prerequisite(s): Any advanced programming course and/or as required by program*

This course is an introduction to the functions of computer operating systems for mainframe and microcomputers. Topics include operating system components, and the operation of computer systems. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 279                    ENTERPRISE NETWORKS                    3 HOURS**

*Prerequisite(s): CIS 276, 277, and/or as required by program*

This course provides a study of large computer networks. Topics included in this course are server administration, resource management, network monitoring, and troubleshooting in a multi-server environment. Upon completion, the student will be able to demonstrate knowledge of the topics through completion of assignments and appropriate tests.

**CIS 280                    SERVICE AND SUPPORT                    3 HOURS**

*Prerequisite(s): As required by program*

This course focuses on learning how to solve real-world problems in a hands-on laboratory setting. Course topics include the installation of network-related hardware and the prevention, diagnosis and resolution of hardware-related networking problems in NetWare 3 and 4 environments. After completing this course students will be able to: quickly find problem-solving information with research tools, including the network support encyclopedia, Microhouse Technical Library and CompuServe; install and troubleshoot network cabling, network boards and hard disks into workstation and NetWare servers; install a CD-ROM drive into a NetWare server; mount a CD as a NetWare volume; troubleshoot a NetWare server and network; use a protocol analyzer to troubleshoot network problems; describe network management; troubleshoot DOS workstations; troubleshoot network printing; explain basic features of Manage Wise software.

**CIS 281                    SYSTEM ANALYSIS                    3 HOURS**  
**AND DESIGN**

*Prerequisite(s): Any advanced programming course and/or as required by program*

This course is a study of contemporary theory and systems analysis and design. Emphasis is placed on investigating, analyzing, designing, implementing, and documenting computer systems. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 285                    OBJECT ORIENTED                    3 HOURS**  
**PROGRAMMING**

*Prerequisite(s): CIS 251 and/or as required by program*

This course is an advanced object-oriented programming course and covers advanced program development techniques and concepts in the context of an object-oriented language,

such as C++ or Java. Subject matter includes object-oriented analysis and design, encapsulation, inheritance, polymorphism (operator and function overloading), information hiding, abstract data types, reuse, dynamic memory allocation, and file manipulation. Upon completion, students should be able to develop a hierarchical class structure necessary to the implementation of an object-oriented software system.

**CIS 286                    COMPUTERIZED SYSTEMS                    3 HOURS**  
**MANAGEMENT INFO**

*Prerequisite(s): CIS 146, 191, 211, 231, and/or as required by program*

The nature of computerized management information systems, problems created by the computer relative to personnel, components of computer systems, programming, and application of computers to business problems.

**CIS 287                    SQL SERVER                    3 HOURS**

*Prerequisite(s): As required by program*

This course will provide students with the technical skill required to install, configure, administer and troubleshoot Microsoft SQL Server client/server database management system version 6.5. At the completion of this series students will be able to: identify the features of SQL Server 6.5 and the responsibilities and challenges in system administration; identify the benefits of integrating SQL Server with Windows NT; upgrade SQL Server 6.0 to 6.5 and setup clients for SQL Server 6.5; install and configure SQL Server 6.5; manage data storage using database devices and partition data using segments; manage the user accounts; manage user permissions; identify the various task scheduling and alerting abilities of SQL Executive; identify the concepts used in replication and implement replication of data between two SQL Services; identify the types of backup and create backup devices; identify the factors effecting SQL Server performance and the need for monitoring and tuning; locate and troubleshoot problems that occur on the SQL Server.

**CIS 288                    MICROCOMPUTER NETWORKING                    3 HOURS**

*Prerequisite(s): Previous computer information course(s) or equivalent and/or as required by program*

This course is an introduction to networking and data communications with an emphasis on microcomputers. Topics covered in the course include LAN design and use, different LAN topologies and protocols. An introduction to Novell Netware and the Internet are included.

**CIS 289                    COMPUTER PROBLEM                    3 HOURS**  
**DETERMINATION**

*Prerequisite(s): As required by program*

This course is an introduction to the problem determination on microcomputers. It uses software diagnostic tools and simple hardware test equipment to identify and repair typical problems of microcomputers. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests.

**CIS 290                    DESIGNING WINDOWS                    3 HOURS**  
**2000 ACTIVE DIRECTORY SERVICES**

*Prerequisite(s): As required by program*

This course provides students with the knowledge and skills necessary to design a Microsoft Windows 2000 directory services infrastructure in an enterprise network. Strategies are

presented to assist the student in identifying the information technology needs of an organization, and then designing an Active Directory structure that meets those needs.

**CIS 291                    CASE STUDY IN                    3 HOURS**  
**COMPUTER SCIENCE**

*Prerequisite(s):* CIS 281 and/or as required by program  
This course is a case study involving the assignment of a complete system development project for analysis, programming, implementation, and documentation. Topics include planning system analysis and design, programming techniques, coding and documentation. Upon completion, students should be able to design, code, test and document a comprehensive computer information system.

**CIS 293                    SPECIAL TOPICS-                    3 HOURS**  
**SERVER (I) INTERNET INFORMATION**

*Prerequisite(s):* As required by program  
This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered. Upon completion, the student will be able to demonstrate knowledge of the course topic through completion of assignments and appropriate tests.

**CIS 294                    SPECIAL TOPICS TCP/IP                    3 HOURS**

*Prerequisite(s):* As required by program  
This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered. Upon completion, the student will be able to demonstrate knowledge of the course topic through completion of assignments and appropriate tests.

**CIS 295                    BUSINESS SYSTEMS DESIGN                    3 HOURS**

*Prerequisite(s):* CIS 133, 134, and/or as required by program  
This course is designed to assist students in understanding techniques and procedures for developing a systems project. Students will study the functions of a system analyst with real life problems and situations. The design of a system is covered from preliminary investigation through implementation and evaluation.

**CIS 296                    DESIGNING A WINDOWS                    3 HOURS**  
**2000 NETWORK INFRASTRUCTUR**

*Prerequisite(s):* As required by program  
This course provides students with the information and skills needed to create a networking services infrastructure design. Some Microsoft Windows 2000 network solutions require a single technology, such as DHCP, to provide Internet Protocol (IP) address configuration support. In other situations, several technology options exist, such as Open Shortest Path First (OSPF), Routing Information Protocol (RIP), and Internet Group Management Protocol (IGMP), to design and IP routing scheme.

**CIS 297                    Co-OP FOR CIS II                    3 HOURS**

*Prerequisite(s):* As required by program  
This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with

practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

**CIS 298                    Co-OP FOR CIS III                    3 HOURS**

*Prerequisite(s):* As required by program  
This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

**CIS 299                    DIRECTED STUDIES                    3 HOURS**  
**COMPUTER SCIENCE**

*Prerequisite(s):* As required by program  
This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to or at the beginning of the class. Upon completion, the student will be able to demonstrate knowledge of the topics as specified by the instructor.

**COSMETOLOGY (COS)**

**COS 111                    COSMETOLOGY SCIENCE                    3 HOURS**  
**AND ART**

*Prerequisite(s):* As required by program  
*Co-requisite(s):* COS 112 and/or as required by program  
In this course, students are provided a study of personal and professional image, ethical conduct, sanitation, hair styling, and nail care. Topics include personal and professional development, bacteriology, decontamination, infection control, draping, shampooing, conditioning, hair shaping, and hair styling. Upon completion, students should be able to apply safety rules and regulations and write procedures for skills identified in this course.

**COS 112                    COSMETOLOGY SCIENCE                    3 HOURS**  
**AND ART LAB**

*Prerequisite(s):* As required by program  
*Co-requisite(s):* COS 111 and/or as required by program  
In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, hairstyling, and nail care. Emphasis is placed on sterilization, shampooing, hair shaping, hairstyling, manicuring, and pedicuring. Upon completion, the student should be able to perform safety and sanitary precautions, shampooing, hair shaping, hairstyling, and nail care procedure.

**COS 113                    CHEMICAL METHODOLOGY                    3 HOURS**

*Prerequisite(s):* As required by program  
*Co-requisite(s):* COS 114 or COS 115 and/or as required by program  
This course focuses on the theory of hair and scalp disorders, permanent waving, chemical relaxers, and the composition of the hair. Topics include disorders and analysis of the scalp and hair, permanent waving, chemical hair relaxing, and soft curling. Upon completion, the student should be able to write



clientele, communication skills, customer service, continuing education, and setting goals. Upon completion, the student should be able to list types of communication skills, state personal goals, and develop a continuing education plan.

**COS 167 STATE BOARD REVIEW 1-3 HOURS**

*Prerequisite(s): As required by program*

Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to complete successfully the required State Board of Cosmetology examination and entry-level employment.

### COMPUTER TECHNOLOGY (DPT)

**DPT 103 INTRODUCTORY COMPUTER SKILLS II 3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to focus on the development of computer skills suited to the needs of students in non-degree occupational programs. The course will generally use software packages appropriate to occupational programs and may include such topics as word processing, database, basic graphics, spreadsheets or other features typically needed in the field. Upon completion, the student will be able to demonstrate proficiency by the completion of appropriate assignments and occupation-specific applications.

### DRAFTING AND DESIGN TECHNOLOGY (DDT)

**DDT 103 INTRODUCTION TO COMPUTER AIDED DRAFTING 3 HOURS**

*Prerequisite(s): As required by program*

This course provides an introduction to basic Computer-Aided Design & Drafting (CAD) functions and techniques, using "hands-on" applications. Topics include terminology, hardware, basic DOS and Windows functions, file manipulation, and basic CAD software applications in producing softcopy and hardcopy. Upon completion, students should be able to identify and select CAD hardware, employ basic DOS and Windows functions, handle basic text and drawing files, and produce acceptable hardcopy on a CAD system.

**DDT 111 FUNDAMENTALS OF DRAFTING AND DESIGN TECHNOLOGY 3 HOURS**

*Prerequisite(s): As required by program*

This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric constructions, and orthographic sketching. Upon completion, students should develop and use safe work habits, identify and properly use common drafting tools and equipment, construct geometric figures, and sketch basic orthographic views of objects.

**DDT 116 BLUEPRINT READING FOR CONSTRUCTION 3 HOURS**

*Prerequisite(s): As required by program*

This course provides the students with terms and definitions, theory of orthographic projection, and other information required to interpret drawings used in the construction trades. Topics include multiview projection, dimensions and notes, lines and symbols, sketching, foundations plans, site plans, floor plans, elevations, sections, details, schedules, electrical plans and specifications. Upon completion, students should be able to interpret blueprint drawings used in the machine trades.

**DDT 123 INTERMEDIATE CAD 3-4 HOURS**

*Prerequisite(s): DDT 113 and/or as required by program*

This course covers intermediate-level concepts and applications of CAD design and drafting. Emphasis will be placed on intermediate-level features, commands, and applications of CAD software. Upon completion, students should be able to develop and use external references and paper space, apply higher-level block creation techniques and usage, including attributes, and apply basic-level customization techniques to CAD software.

**DDT 132 ARCHITECTURAL DRAFTING 3 HOURS**

*Prerequisite(s): DDT 111, 112, 113, and/or as required by program*

This course in architectural design and drafting introduces basic terminology, concepts and principles of architectural design and drawing. Topics include design considerations, lettering, terminology; site plans, and construction drawings. Upon completion, students should be able to draw, dimension, and specify basic residential architectural construction drawings.

**DDT 191 DRAFTING INTERNSHIP 1 HOUR**

*Prerequisite(s): As required by program*

This course is designed for those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 5 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 192 DRAFTING INTERNSHIP 2 HOURS**

*Prerequisite(s): As required by program*

This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 10 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 193 DRAFTING INTERNSHIP 3 HOURS**

*Prerequisite(s): As required by program*

This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 15 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, the student will have

gained valuable work experience in a well-planned, coordinated training/work situation.

**DDT 212                    INTERMEDIATE                    3 HOURS**  
**ARCHITECTURAL DRAFTING**

*Prerequisite(s): DDT 132 and/or as required by program*

This second course in architectural design and drafting continues with more advanced and detailed architectural plans. Topics include floor construction and detailing, foundation, wall, and roof construction and detailing; use of standards manuals; perspective drawings; electrical plans; plumbing plans; and building materials, with emphasis on residential and some light commercial applications. Upon completion, students should be able to draw and specify advanced-level plans including various architectural details.

**DDT 217                    BUILDING CODES,                    3 HOURS**  
**ORDINANCES, ZONING RESTRICTIONS**  
**AND THE A.D.A.**

*Prerequisite(s): As required by program*

This course provides an in-depth study of building codes, municipal ordinances, zoning restrictions, and compliance with the Americans With Disability Act as related to commercial drafting and design. Emphasis is placed upon working understanding of these topics.

**DDT 222                    ADVANCED                    3 HOURS**  
**ARCHITECTURAL DRAFTING**

*Prerequisite(s): DDT 132 and/or as required by program*

This third course in architectural design and drafting continues with advanced architectural plans, including a slant toward light commercial construction. Topics include climate control plans, application of building codes, building materials and finish specifications, cost estimating, and bid specifications. Upon completion, students should be able to apply current techniques in producing advanced-level architectural plans, including residential and light commercial applications.

**DDT 231                    ADVANCED CAD                    3-4 HOURS**

*Prerequisite(s): DDT 111, DDT 112, DDT 113 and/or as required by program*

This course covers the advanced applications of CAD software to engineering projects in various applications, including architectural, civil, mechanical, and environmental engineering, with consideration for advanced physical and psychological principle of CAD. These principles will be applied toward CAD customization and programming principles, for the expressed purpose of increasing productivity and improving the performance of the CAD operator, thereby, making CAD much more productive in an engineering environment. Emphasis will be placed on using intelligent CAD techniques to increase the quality of output. And, 3D modeling and rendering will be introduced. Upon completion, students should be able to apply advanced CAD techniques in solving complex problems related to all engineering applications.

**DDT 234                    3D GRAPHICS AND                    3-4 HOURS**  
**ANIMATION**

*Prerequisite(s): DT 123 and/or as required by program*

This course is design to challenge the imagination of the student in a 3-dimensional problem solving environment. The student will be given a basic introduction to the concepts of 3D design and animation then apply those concepts to a design

project. Upon completion, students should be able to create and animate objects in a 3-dimensional environment.

**DDT 239                    INDEPENDENT STUDIES                    3 HOURS**

*Prerequisite(s): DDT 122 and/or as required by program*

This course provides practical application of prior attained skills and experiences as selected by the instructor for the individual student. Emphasis is placed on applying knowledge from prior courses toward the solution of individual drafting and design problems. With completion of this course, the student will demonstrate the application of previously attained skills and knowledge in the solution of typical drafting applications and problems.

**DDT 250                    THEORY OF COMMERCIAL                    3 HOURS**  
**DRAWING AND DESIGN**

*Prerequisite(s): DDT 120 & DDT 140 and/or as required by program*

*Corequisite(s): DDT 255 and/or as required by program*

This course provides the theory of commercial drawing and design. Topics include legal issues, job expectations, the architect and the architectural office, the contractor and the office of the contractor, building officials, construction materials and process, fire resistance design, C.S.I. format, and contract documents. Emphasis is placed upon a thorough understanding of these topics.

**DDT 255                    DRAWING FOR                    4 HOURS**  
**COMMERCIAL CONSTRUCTION**

*Prerequisite(s): DDT 120 & DDT 140 and/or as required by program*

*Corequisite(s): DDT 250 and/or as required by program*

This course is a direct applications lab to the topics covered within DDT 250. Emphasis is placed upon the production of quality construction document.

**DDT 267                    CO-OP ELECTIVE                    1 HOUR**  
**DRAWING AND DESIGN**

*Prerequisite(s): As required by program*

This course allows the student to work parallel in a job closely related to the student's major while attending college. The grade is based on the employer's evaluation of the student's productivity, an evaluation work report submitted by the student, and the student's learning contract.

**DDT 268                    CO-OP ELECTIVE                    1 HOUR**

*Prerequisite(s): As required by program*

This course allows the student to alternate semesters of full-time work in a job closely related to the student's major with semesters of full-time school. The grade is based on the employer's evaluation of the student's productivity, an evaluation work report submitted by the student, and the student's learning contract.

**DDT 271                    CO-OP/FIELD EXPERIENCE                    2-6 HOURS**

*Prerequisite(s): As required by program*

This course allows credit for substantial on-the-job experience within the field of Drafting and Design Technology.

**DDT 285                    COMPUTER AIDED                    3 HOURS**  
**MODELING II**

*Prerequisite(s): DDT 284 and/or As required by program*

Continuation of MET 204. Topics include projecting, model space, paper space, model views, external references, and solid

modeling. Upon completion of this course a student will be able to draw and dimension the diagrams necessary to clearly and completely describe an electronic network.

**DDT 286 ELECTRONICS CAD 3 HOURS**

*Prerequisite(s): As required by program*

Introduction to computer-aided drafting for electronics. Topics include block diagrams, electronics symbols, schematic diagrams, logic diagrams, wiring diagrams, and printed circuits. Upon completion of this course a student will be able to draw and dimension the diagrams necessary to clearly and completely describe an electronic network.

**DDT 289 PROCESS CAD 3 HOURS**

*Prerequisite(s): DDT 285 and/or as required by program*

Introduction to computer-aided drafting for process control. Topics include process symbols, multiview process projections, P & I diagrams, and isometric process projections. Upon completion of this course a student will be able to draw and dimension the plans necessary to clearly and completely describe a process-control network.

### ECONOMICS (ECO)

**ECO 231 PRINCIPLES OF MACROECONOMICS 3 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction to macroeconomic theory, analysis, and policy applications. Topics include the following: scarcity, demand and supply, national income analysis, major economic theories concerning monetary and fiscal policies as stabilization measures, the banking system, and other economic issues or problems including international trade.

**ECO 232 PRINCIPLES OF MICROECONOMICS 3 HOURS**

*Prerequisite(s): As required by program*

This course is an introduction of the microeconomic theory, analysis, and applications. Topics include scarcity; the theories of consumer behavior, production and cost, markets, output and resource pricing, and international aspects of microeconomics.

### ELECTRONIC ENGINEERING TECHNOLOGY (EET)

**EET 100 INTRO ENGINEERING TECHNOLOGIES 3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to introduce the student to the basic concepts, terminology, procedures associated with applied analytical skills needed to succeed in higher level courses. To include: engineering notation, use of scientific calculator, triangulations methods, and the basic laws of electricity.

**EET 101 DC THEORY 3 HOURS**

*Prerequisite(s): As required by program*

*Corequisite(s): College algebra*

An introduction to DC Circuit analysis. Topics include voltage, current and power in series, parallel, series-parallel and bridge circuits, node and mesh circuits, superposition and

Thevenin's theorems, inductors, capacitors, R-L, R-C time constants. Upon completion of this course and EET 102, students should be able to calculate all parameters in DC circuitry, construct equivalent circuits, and describe circuit behavior.

**EET 102 DC LABORATORY 2 HOURS**

*Prerequisite(s): As required by program*

*Corequisite(s): DC Theory*

Companion to EET 101. Topics include circuit construction, measurement of voltage, current, relative voltages, component identification, dc meters, schematic reading, circuit construction, and parameter measurements. Upon completion of this course and EET 101 students should be able to calculate all parameters in DC circuitry, construct equivalent circuits, and describe circuit behavior.

**EET 111 DC FUNDAMENTALS 3 HOURS**

*Prerequisite(s): As required by program*

An introduction to DC electronic circuits. Topics include basic atomic structure, methods of generating EMF, electronic laws, network theorems, voltage, current, resistance, power, insulators, conductors, meter scales, color codes, schematic diagrams, and graphical symbols. Upon completion of this course, a student will be able to solve dc problems with electronic laws and network theorems, reduce series and parallel resistive circuits, and solve a resistive series/parallel circuit for at least one unknown variable.

**EET 120 ELECTRONICS FABRICATION 1 HOUR**

*Prerequisite(s): DC Laboratory*

An introduction to device construction and fabrication. Topics include soldering, cable construction, printed circuit boards, coaxial cable connection and termination, component mounting, cases, and chassis. Upon completion of this course, students should be able to perform basic circuit and project construction.

**EET 122 TRANSMISSION FUNDAMENTALS 3 HOURS**

*Prerequisite(s): EET and/or as required by program*

This course is designed to give the student a working knowledge of telephone voice and data transmission over wires or carrier, includes the fundamentals of signaling, supervision and loop treatment.

**EET 142 MICROCOMPUTER SYSTEMS AND APPLICATION 2 HOURS**

*Prerequisite(s): As required by program*

This course includes the study of primary storage, secondary storage devices, input and output operations. Special emphasis is placed on operating systems, installation, A+ certification, setup and function. Upon completion, the student will demonstrate an understanding of system software, function, and utilization of computer hardware.

**EET 151 AC THEORY 3 HOURS**

*Prerequisite(s): EET 101, College algebra*

*Corequisite(s): College trigonometry*

An introduction to ac circuit analysis. Topics include ac waveforms: amplitude, phase, frequency and period; reactance, phasors; filters : R-L and R-C; resonance; ac circuit analysis; power factors, delta circuits, WYE circuits; rectifier circuits;

and power supplies. Upon completion of this course and EET 152, students should be able to calculate all parameters in AC circuits, describe circuit behavior and use ac instruments.

**EET 152 AC LABORATORY 2 HOURS**

*Prerequisite(s): EET 101, EET 102*

*Corequisite(s): EET 151*

Companion to EET 151. Topics include use of oscilloscopes, function generators, frequency counters, circuit construction, measurements, use of circuits. Upon completion of this course and EET 151 a student will be able to construct circuitry and perform all necessary ac measurements.

**EET 161 SOLID STATE THEORY 3 HOURS**

*Prerequisite(s): EET 151, EET 152*

An introduction to solid-state devices and circuits. Topics include solid-state devices: diodes, transistors, FETS, SCR's, TRIACS, LED's UITS, and the basic circuits that use these devices: amplifiers, power control and switching circuits. Upon completion of this course and EET 162, students should be able to describe the operation of various devices and the circuits using these devices, and calculate all parameters.

**EET 162 SOLID STATE LAB 1 HOUR**

*Prerequisite(s): EET 151, EET 152*

*Corequisite(s): EET 161*

Companion to EET 161. Topics include circuit operation and measurements using various solid-state devices. Upon completion of this course and EET 161, students should be able to construct circuits using various solid-state devices to amplify signals, control power, perform switching operations, etc.

**EET 202 ELECTRONIC CIRCUITS LAB 1 HOUR**

*Prerequisite(s): EET 161, 162*

*Corequisite(s): EET 201*

Companion to EET 201. Topics include behavior and use of circuitry using Op-Amps, PLL's, other IC components/circuits; emphasis is placed on construction testing and understanding of circuits. Upon completion of this course and EET 201, students should be able to describe circuits taught, evaluate behavior of circuits, and describe circuit use.

**EET 201 ELECTRONIC CIRCUITS 3 HOURS**

*Prerequisite(s): EET 161*

An introduction to analog electronic circuits. Topics include operational amplifiers, active filters, phase-lock loops, use and component selection/design for specific circuit behavior, circuit use, circuits as part of systems. Upon completion of this course and EET 202 a student should be able to choose circuitry to perform specific functions, and design for specific behavior as part of a system.

**EET 210 DIGITAL BASICS 3 HOURS**

*Prerequisite(s): EET 161 and EET 162.*

This course is an introduction to digital logic and circuits. Topics include Boolean Algebra, basic logic gates, characteristics of simple TTL, IC's, shift registers, and flip-flops. Upon completion of this course and EET 211, students should be able to construct a circuit from Boolean expression, and alter a circuit design for use with a particular type of gate.

**EET 211 DIGITAL BASIC LAB 1 HOUR**

*Prerequisite(s): EET 161 and EET 162*

*Corequisite(s): EET 210*

Companion to EET 210. Topics include logic gates, circuit construction, measurements of states, counters, timers, Divide-By-N circuits and shift-registers. Upon completion of this course and EET 210, a student should be able to describe operation of circuitry, construct and demonstrate operation of circuits.

**EET 232 MICROPROCESSOR 2 HOURS**

**ASSEMBLER**

*Prerequisite(s): ETC 131 and ETC 136*

This course introduces the student to the use of assembly language to troubleshoot and analyze microprocessor systems. Students will set up hardware, write basic assembly language programs, and test systems. Upon completion of this course a student will be able to analyze and troubleshoot microprocessor systems by way of assembly language.

**EET 242 MICROCOMPUTER SYSTEM 3 HOURS**

**PRINCIPLES**

*Prerequisite(s): EET 142 and/or as required by program*

This course is a fundamental study of installation, identification of systems and sub-systems, upgrades, maintenance, program writing with emphasis on system testing, A+ certification and the use of diagnostic software. Topics include networking concepts, sharing devices across a network, and utilization of microprocessors. Upon completion, the student will demonstrate an understanding of computer systems and concepts.

**ELECTRICAL TECHNOLOGY (ELT)**

**ELT 101 DC PRINCIPALS OF 3 HOURS**

**ELECTRICITY**

*Prerequisite(s): MTH 092 and/or as required by program*

This course is a study of basic atomic structure, electron flow, Ohm's Law, electrical power and conductors and insulators. Topics include atomic theory, series and parallel circuits, complex circuits, magnetism and electromagnetism. Upon completion, students should be able to understand and solve DC Electrical Quantity problems and use voltmeters, ohm meters, and amp meter correctly.

**ELT 102 AC PRINCIPLES OF 3 HOURS**

**ELECTRICITY**

*Prerequisite(s): ELT 101, MTH 093, and/or as required by program*

This course is a study of alternating current and its measurements, circuit analysis, resistive, inductive and capacitive circuits, vectors, AC power and AC test equipment. Emphasis is placed on sinewave generation and valves, circuit construction and analysis and test equipment. Upon completion, students should be able to set up, explain construct AC circuits, and properly use AC test equipment.

**ELT 111 RESIDENTIAL WIRING METHODS 3 HOURS***Prerequisite(s): MTH 093, ELT 101, ELT 102**Co-requisite(s): ELT 102 or permission of instructor*

This course introduces the student to residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. Topics include standard residential wiring procedures and practices, NEC requirements, wiring diagrams and wiring layouts. Upon completion, students should be able to read blueprints, know most code requirements, and wire lights and switches.

**EET 112 ADVANCED RESIDENTIAL WIRING METHODS 3 HOURS***Prerequisite(s): ELT 111, MTH 092, ELT 102, and/or as required by program*

This course provides the student with information on how to interpret electrical residential blueprints, wiring diagrams, layouts, and will teach them to wire many different residential circuits in accordance with the National Electric Code. Emphasis is placed on applying the National Electrical Code, actual wiring of panels, service and branch circuits. Upon completion, students should be able to interpret and wire most aspects of a residential application to code.

**ELT 113 RESIDENTIAL WIRING 6 HOURS***Prerequisite(s): ELT 105 and/or as required by program*

This course is a study of residential wiring practices and methods and introduces the student to the use of hand and power tools, electrical safety, the NEC requirements, and how to interpret electrical residential blueprints, wiring diagrams, and layouts. Students will also learn to wire many different residential circuits in accordance with the National Electric Code. Topics include standard residential wiring procedures and practices, grounding NEC requirements, wiring diagrams and wiring layouts. Emphasis will also be placed on applying the National Electric Code, actual wiring of panels, service and branch circuits. Upon completion, students should be able to read blueprints, understand code requirements, wire lights and switches, and be able to interpret and wire most aspects of a residential application to code.

**ELT 122 ADVANCED AC/DC MACHINES 3 HOURS***Prerequisite(s): MTH 092, ELT 102, ELT 121, and/or as required by program*

This course focuses on single and three-phase motors and introduces students to DC motors. Emphasis is placed on field wiring, various types of AC and DC motors, troubleshooting AC and DC motors and using test instruments. Upon completion, students should be able to explain, wire, troubleshoot and test most all types of AC and DC electric motors.

**ELT 131 COMMERCIAL/INDUSTRIAL WIRING I 3 HOURS***Prerequisite(s): MTH 092, ELT 101, ELT 102**Co-requisite(s): ELT 102 and/or as required by program*

This course teaches the student the principles and applications of commercial and industrial wiring methods. Emphasis is placed on blueprint symbols, calculations and the NEC code requirements as it applies to commercial and industrial wiring and the lab will reinforce the knowledge in this class. Upon completion, students should be able to read electrical plans,

know most electrical symbols, load calculations for commercial industrial applications and interpret the NEC code requirements.

**ELT 132 COMMERCIAL/INDUSTRIAL WIRING II 3 HOURS***Prerequisite(s): MTH 092, ELT 101, ELT 102, ELT 131**Co-requisite(s): ELT 102, ELT 131 and/or as required by program*

This course is a continuation of ELT 131 and is all inclusive. Including the study of branch circuits, installation requirements for services, feeders and special equipment considerations including the NEC code requirements. Emphasis is placed on load calculations, conductors, service sizing, installation requirements, NEC code requirements, transformers, lighting, HVAC and special equipment considerations. Upon completion, students should be able to know how to size complete electrical commercial/industrial systems and know the NEC requirements for each system.

**ELT 181 SPECIAL TOPICS IN ELECTRICAL TECHNOLOGY 3 HOURS***Prerequisite(s): As required by program.*

These courses provide specialized instruction in various areas related to electrical technology. Emphasis is placed on meeting students' needs.

**ELT 192 PRACTICUM/INTERN/CO-OP 1 HOURS***Prerequisite(s): As required by program*

This course provides practical experience in the field early in the student's training as an electrician's helper on the job, working a special project or conducting research/study in a directed area of the field. Emphasis is placed on gaining hands-on experience with tools of the trade as well as a better understanding of NEC directives. Upon completion, students should possess a higher state of proficiency in the basic skills of connecting electrical wiring and conduit; this course may be repeated with the instructor's permission.

**ELT 194 PRACTICUM/INTERN/CO-OP 3 HOURS***Prerequisite(s): As required by program*

This course provides practical experience in the electrical craft as an electrician's helper or higher level working more advanced special projects or conducting more advanced research/study in a directed area of the field. Emphasis is placed on gaining hands-on experience with tools of the trade as well as a better understanding of NEC directives while studying in the classroom one hour per week. Upon completion, students should possess a higher state of proficiency in the basic skills and a better knowledge of testing for Electrical Journeyman's Block.

**ELT 206 OSHA SAFETY STANDARDS 3 HOURS***Prerequisite(s): As required by program*

This course provides the student with the knowledge of OSHA safety standards as required by this organization, and as it related to the job site. Emphasis is placed on overall safety practices, construction site safety practices and safety procedures required by Federal/State laws. Upon completion, students should be able to understand the requirements of OSHA as it relates to general and specific construction sites.

**ELT 211            MOTOR CONTROL I            3 HOURS***Prerequisite(s): ELT 101, MTH 092, ELT 102**Co-requisite(s): ELT 102, and/or as required by program*

This course introduces the use of motor control symbols, magnetic motor starters, running overload protection, push-button stations and sizing of magnetic motor starters and overload protection. Topics include, sizing magnetic starters and overload protection and the use of push-button stations, ladder diagrams and magnetic motor starters in control of electric motors. Upon completion, students should be able to understand the operation of magnetic motor starters, overload protection and interpret ladder diagrams using push-button stations.

**ELT 212            MOTOR CONTROL II            3 HOURS***Prerequisite(s): ELT 101, MTH 092, ELT 102, ELT 211**Co-requisite(s): ELT 102, ELT 211 and/or as required by program*

This course covers complex ladder diagrams of motor control circuits and the uses of different motor starting techniques. Topics include wye-delta starting, part start winding, resistor starting and electronic starting devices. Upon completion, the students should be able to understand and interpret the more complex motor control diagrams and understand the different starting techniques of electrical motors.

**ELT 221            ELECTRONICS FOR            3 HOURS  
ELECTRICIANS I***Prerequisite(s): ELT 102, comparable competencies, and/or as required by program*

This course introduces the basic principles of solid-state electronic equipment as found in many electrical and motor control circuits. Emphasis is placed on fundamental concepts of diodes, transistors, FETs and MOSFETs as they are used in electrical control circuits. Upon completion, students should be able to explain the basic operation of these solid-state components and be able to perform basic troubleshooting tasks.

**ELT 225            SMART HOUSE WIRING            3 HOURS***Prerequisite(s): ELT 222, comparable competency, and/or as required by program*

This course introduces the newest technology available for Smart House wiring equipment and wiring methods to include control of whole-house electrical equipment and home entertainment produces. Emphasis is placed on specialized skills and tools required for wiring Smart Houses. Upon completion, students should be able to install special devices and automated equipment in a high-technology Smart House.

**ELT 231            PROGRAMMABLE            3 HOURS  
CONTROLS I***Prerequisite(s): ELT 102 and/or as required by program**Co-requisite(s): ELT 102 and/or as required by program*

This state-of-the art course includes the fundamental principals of programmable logic controls (PLCs) including hardware and programming. Emphasis is placed on but not limited to the following: hardwiring associated with the PLC, different options available with most PLCs and basic ladder logic programming. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

**ELT 241            NATIONAL ELECTRIC CODE            3 HOURS***Prerequisite(s): ELT 101, ELT 102, and/or as required by program**Co-requisite(s): ELT 102 and/or as required by program*

This course introduces the students to the National Electric Code and text and teaches the student how to find needed information within this manual. Emphasis is placed on locating and interpreting needed information within the NEC code manual. Upon completion, students should be able to locate, with the NEC code requirements for a specific electrical installation.

**ELT 244            CONDUIT BENDING AND            3 HOURS  
INSTALLATION***Prerequisite(s): As required by program*

This course provides students the knowledge to properly bend electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to get measurements, layout, and successfully bend conduit using hand type, mechanical, and hydraulic benders.

**EMERGENCY MEDICAL TECHNOLOGY  
Emergency Medical Services (EMS)**

**EMS 100            CARDIOPULMONARY            1 HOUR  
RESUSCITATION - I***Prerequisite(s): As required by program*

This course provides students with concepts as related to areas of basic life support to include coronary artery disease, prudent heart living, symptoms of heart attack, adult one-and-two rescuer CPR, first aid for choking, pediatric basic life support, airway adjuncts, EMS system entry access, automated external defibrillation (AED), and special situations for CPR. Upon course completion, students should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for each condition. Students successfully completing this course will receive appropriate documentation of course completion.

**EMS 140            EMT PREPARATORY            2 HOURS  
AND PRE-HOSPITAL EMS OPERATIONS***Prerequisite(s): Admission to the EMT-Basic Program.*

This course is one of four courses (EMS 140, 141, 142, 143) required for successful completion of the EMT-Basic Program according to the current National Standard Curriculum for the EMT-Basic. Content areas include introduction to emergency medical care; the well-being of the EMT-Basic; medical/legal and ethical issues; the human body; baseline vitals and SAMPLE history; lifting and moving; airway management; ambulance operations; gaining access; an overview of hazardous materials, incident management systems, mass casualty situations, and triage; and state and local EMS rules/regulations. Computer use in simulated scenarios is also included in the course. Successful completion of student cognitive, psychomotor, and affective domain competencies are required in this course.

**EMS 141 EMT ASSESSMENT AND TRAUMA RELATED INJURIES 3 HOURS**

*Prerequisite(s): Admission to the EMT-Basic Program.*  
 This course is one of four courses (EMS 140, 141, 142, 143) required for successful completion of the EMT-Basic Program according to the current National Standard Curriculum for the EMT-Basic. Content areas include scene size-up; initial assessment; focused history and physical exam: medical and trauma; detailed physical exam; on-going assessment; communications; documentation; bleeding and shock; soft tissue injuries; musculoskeletal care; and injuries to the head and spine. Computer use in simulated scenarios is also included in the course. Successful completion of student cognitive, psychomotor, and affective domain competencies are required in this course.

**EMS 142 EMT MEDICAL EMERGENCIES AND PEDIATRIC CARE 3 HOURS**

*Prerequisite(s): Admission to the EMT-Basic Program.*  
 This course is one of four courses (EMS 140, 141, 142, 143) required for successful completion of the EMT-Basic Program according to the current National Standard Curriculum for the EMT-Basic. Content areas include general pharmacology; respiratory emergencies; cardiovascular emergencies; diabetic emergencies (including the use of a digital glucometer)/altered mental status; allergic reactions; poisoning/overdose emergencies; environmental emergencies; behavioral emergencies; obstetrics; and infants/children. Computer use in simulated scenarios will also be included in the course. Successful completion of student cognitive, psychomotor, and affective domain competencies are required in this course.

**EMS 143 EMT BASIC CLINICAL COMPETENCIES 1 HOUR**

*Prerequisite(s): Admission to the EMT-Basic Program.*  
 This course is one of four courses (EMS 140, 141, 142, 143) required for successful completion of the EMT-Basic Program according to the current National Standard Curriculum for the EMT-Basic. It provides students with clinical education experiences to enhance knowledge and skills learned in the EMT-Basic Program. Successful completion of student cognitive, psychomotor, and affective domain competencies are required in this course.

**FIRE SCIENCE (FSC)**

**FSC 111 FIRE HYDRAULICS 3 HOURS**

*Prerequisite(s): As required by program*  
 This course is a review of basic mathematics, hydraulic laws and formulae as applied to the fire service, water supply problems and underwriters' requirement for pumps.

**FSC 130 INTRODUCTION TO FIRE SUPPRESSION 3 HOURS**

*Prerequisite(s): As required by program*  
 This course is a study of fire suppression, organization, fire suppression equipment, characteristics and behavior of fire, and fire hazard properties of ordinary materials.

**FSC 200 FIRE COMBAT TACTICS AND STRATEGY 3 HOURS**

*Prerequisite(s): As required by program*  
 This course is a review of fire chemistry, equipment and manpower, basic fire fighting tactics and strategy, methods of attack and pre-planning fire problems.

**FSC 220 FIRE EXTINGUISHMENT AGENTS 3 HOURS**

*Prerequisite(s): As required by program*  
 This is a study of water supplies and services, principles of hydraulic calculations and tests, fire extinguishing chemicals, and the selection and use of extinguishing agents.

**FSC 240 FIRE CAUSE DETERMINATION 3 HOURS**

*Prerequisite(s): As required by program*  
 This course covers the burning characteristics of combustibles, interpretation of clues, burn patterns leading to points of origin, identification of incendiary indications, sources of ignition ignited materials, and preservation of fire science evidence.

**FSC 250 FIRE PREVENTION INSPECTION 3 Hours**

*Prerequisite(s): As required by program*  
 This is a study of the organization and function of the fire prevention team. Course content includes inspections, survey and mapping procedures, recognition of fire hazards, and public relations as affected by fire prevention.

**FSC 260 SPECIAL SERVICE HAZARDS 3 HOURS**

*Prerequisite(s): As required by program*  
 This is a study of electrical transmissions and related equipment appliances, radiation hazards, flammable metals, and riots, disaster and civil defense organizations, and hazard plans.

**HOME HEALTH AIDE (HHA)**

*Please refer to Nursing Assistant for Course Descriptions*

**INDUSTRY MAINTENANCE TECHNOLOGY (INT)**

**INT 111 INDUSTRIAL MECHANICS 3-6 HOURS**

*Prerequisite(s): As required by program*  
 This course provides instruction in basic physics concepts applicable to mechanics of industrial production equipment. Topics include the basic application of mechanical principles with emphasis on power transmission, specific mechanical components, alignment, and tension. Upon completion, students will be able to perform basic troubleshooting, repair and maintenance functions on industrial production equipment.

**INT 112 INDUSTRIAL MAINTENANCE SAFETY PROCEDURES 3 HOURS**

*Prerequisite(s): As required by program*  
 This course is an in-depth study of the health and safety practices required for maintenance of industrial production equipment. Topics include traffic, ladder, electrical, and fire

safety, safe work in confined spaces, electrical and mechanical lock-out procedures, emergency procedures, OSHA regulations, MSDS Right-to-Know law, hazardous materials safety, and safety equipment use and care. Upon course completion, students will be able to implement health and safety practices in an industrial production setting.

**INT 113                    FUNDAMENTALS OF                    3 HOURS**  
**INDUSTRIAL HYDRAULICS**

*Prerequisite(s):            As required by program*

This course includes the fundamental concepts and theories for the safe operation of hydraulic components and systems used with industrial production equipment. Topics include the physical concepts, theories, laws, and the application of these concepts to perform work. Upon completion, students should be able to service and perform preventive maintenance functions on hydraulic systems.

**INT 114                    MECHANICAL MEASUREMENTS 3 HOURS**  
**AND TECHNICAL DRAWINGS**

*Prerequisite(s):            As required by program*

This course provides instruction in the use of precision measuring tools and the interpretation of technical drawings. Topics include the use of calipers, micrometers, steel rules, dial indicators, identifying types of lines and symbols of technical drawings, recognition and interpretation of various types of views, tolerances, and dimensions. Upon course completion, students will be able to use precision measuring tools and interpret technical drawings.

**INT 121                    INDUSTRIAL HYDRAULICS                    3 HOURS**  
**TROUBLESHOOTING**

*Prerequisite(s):            INT 113 and/or as required by program*

This course provides instruction in maintenance and troubleshooting procedures needed for safe and proper repair of hydraulic systems used with industrial production equipment. Topics include maintenance and troubleshooting procedures, hydraulic system maintenance and troubleshooting techniques, effects of heat, leakage, and contamination on components and system operation, component maintenance and troubleshooting, reading and interpreting system diagrams, and design and troubleshooting of hydraulic circuits and systems. Upon course completion, students will demonstrate the ability to troubleshoot and repair industrial hydraulic systems.

**INT 122                    PREVENTIVE AND PREDICTIVE 3 HOURS**  
**MAINTENANCE**

*Prerequisite(s):            As required by program*

This course focuses on the concepts and applications of preventive and predictive maintenance. Topics include the introduction to optic alignment equipment, vibration testing and analysis, data collection, job safety, tool safety, systems analysis, preventive maintenance procedures and tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply the planning process for proper preventive and predictive maintenance.

**INT 123                    INDUSTRIAL PUMPS AND                    3 HOURS**  
**PIPING SYSTEMS**

*Prerequisite(s):            As required by program*

This course provides instruction in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation, maintenance and troubleshooting, and piping systems, and their installation.

Upon course completion, students will be able to install, maintain and troubleshoot industrial pumps and piping systems.

**INT 124                    PRODUCTION EQUIPMENT                    3 HOURS**  
**LAYOUT AND INSTALLATION**

*Prerequisite(s):            As required by program*

This course provides instruction in the layout and installation of production equipment and the use of rigging and installation tools. Topics include the use of wire rope, chain and metal-mesh, and fiber rope and webbing slings, industrial hoists and cranes, crane operation, scaffolds and ladders, machine anchoring for vibration control, moving and setting new equipment, leveling and alignment, preparing equipment for test run, test run guidelines, and safety precautions. Upon course completion, students will be able to install production equipment.

**INT 193                    INDUSTRIAL MAINTENANCE 3 HOURS**  
**TECHNOLOGY CO-OP**

*Prerequisite(s):            As required by program*

In this series of courses, students work on a part-time basis in a job directly related to Industrial Maintenance Technology. The employer evaluates the student's performance and the student submits a descriptive report of his or her work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

**INT 215                    TROUBLESHOOTING                    3 HOURS**  
**TECHNIQUES**

*Prerequisite(s):            As required by program*

This course focuses on the systematic approach to solving problems. Emphasis is placed on instrument failures and their interaction with process down-time. Upon completion, students should be able to solve problems on a process simulator or in an actual setting.

**INT 231                    INDUSTRIAL ELECTRICAL                    3 HOURS**  
**FUNDAMENTALS**

*Prerequisite(s):            As required by program*

This course provides instruction in the fundamentals of electricity from electron theory through polyphase electrical power. Topics include the basic concepts of electricity, electrical components, basic circuits, measurement and instruments, the laws of direct and alternating current, motors polyphase electricity, and electrical safety with lock-out procedures. Upon course completion, students should be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial electrical components.

**INT 232                    MANUFACTURING PLANT                    3-4 HOURS**  
**UTILITIES**

*Prerequisite(s):            As required by program*

This course focuses on the theory of operating and maintaining plant utilities. Topics include the operation/control and maintenance of boilers, HVAC systems, and air compressors. Upon course completion, students will demonstrate the ability to repair and maintain utilities systems in an industrial setting.

**INT 233                    INDUSTRIAL                    3 HOURS**  
**MAINTENANCE METAL**  
**WELDING AND CUTTING TECHNIQUES**

*Prerequisite(s):            As required by program*

This course provides instruction in the fundamentals of acetylene cutting and the basics of SMAW welding needed for

the maintenance and repair of industrial production equipment. Topics include oxy-fuel safety, choice of cutting equipment, proper cutting angles, equipment setup, cutting plate and pipe, hand tools, types of metal welding machines, rod and welding joints, and common welding passes and beads. Upon course completion, students will demonstrate the ability to perform metal welding and cutting techniques necessary for repairing and maintaining industrial equipment.

**INT 241 INDUSTRIAL ELECTRICAL CONTROL 3 HOURS**

*Prerequisite(s): INT 131 and/or as required by program*  
This course focuses on the theory and application of industrial electrical control circuitry and the troubleshooting of electrical control circuits. Topics include electrical safety, circuit layout, connections and symbols, pilot devices, basic control circuits, AC reduced voltage starters, three-phase multi-speed controllers, wound rotor controllers, synchronous motor controls, direct current motor controls, methods of deceleration, industrial semiconductors, and sensing devices. Upon course completion, students will demonstrate the ability to troubleshoot and repair electrical control components.

**INT 242 FUNDAMENTALS OF INDUSTRIAL PNEUMATICS 3 HOURS**

*Prerequisite(s): As required by program*  
This course provides instruction in fundamental concepts and theories for the safe operation of pneumatic components and systems used with industrial production equipment. Topics include the physical concepts, theories, laws, and the application of these concepts to perform work, air flow characteristics, actuators, valves, accumulators, symbols and circuitry, filters, servicing safety, and preventive maintenance. Upon course completion, students will be able to troubleshoot, repair and maintain industrial pneumatic systems.

**MASONRY (MAS)**

**MAS 111 MASONRY FUNDAMENTALS 3 HOURS**

*Prerequisite(s): As required by program*  
*Co-requisite(s): MAS 151 and/or as required by program*  
This course is designed as an introduction and orientation to masonry construction, specifically to brick and block construction. Topics include the identification and safe use of tools, equipment, and masonry materials. Upon completion, the students should be able to properly apply masonry techniques.

**MAS 121 BRICK/BLOCK MASONRY 3 HOURS**

*Prerequisite(s): MAS 111*  
*Co-requisite(s): MAS 121 and/or as required by program*  
This course is designed to provide the student with a working knowledge of the various concrete block and brick sizes as well as types of joints. Emphasis is placed on understanding the modular system, wall types, joints, and wall insulation. Upon completion of this course, the students should be able to identify methods of brick and block reinforcements, wall supports, and wall types, joints, insulation, and sample panels and prisms.

**MAS 131 RESIDENTIAL/COMMERCIAL 3 HOURS**

*Prerequisite(s): MAS 111*  
*Co-requisite(s): MAS 171 and/or as required by program*  
This course introduces the student to residential and commercial construction, plans and layouts, and reinforced masonry. Emphasis is placed on home building, shopping centers and high-rise buildings, residential and commercial drawings and specifications, job costing, job preparation, as well as brick and block moisture control. Upon completion, the student should be able to read full-scale construction drawings, estimate job costs, specify job preparation techniques, and identify methods for veneering a wall, constructing a composite wall, installing expansion joints, setting coping, and moisture control.

**MAS 151 MASONRY FUNDAMENTALS 3 HOURS LAB**

*Prerequisite(s): As required by program*  
*Co-requisite(s): MAS 111 and/or as required by program*  
This course provides a practical application of introductory brick and block construction. Emphasis is placed on mixing mortar, using masonry equipment and tools, job preparation, spreading and furrowing mortar, and dry bonding. Upon completion, the student should be able to demonstrate appropriate practices, including safety in brick and block construction to entry-level standards.

**MAS 152 MASONRY FUNDAMENTALS 3 HOURS LAB**

*Prerequisite(s): As required by program*  
*Co-requisite(s): MAS 111 and/or as required by program*  
This course provides a practical application of introductory brick and block construction. Emphasis is placed on spreading mortar and laying bricks, coursing bricks, laying bricks in a running bond, building course pyramids, building stretcher, wall common, Flemish, English and stack bonds. Upon completion, the students should be able to demonstrate appropriate practices, including safety, in brick and block construction to entry-level standards.

**MAS 153 SPECIAL TOPICS/PROJECT 3 HOURS**

*Prerequisite(s): As required by program*  
A selection of topics/projects related to the masonry profession is addressed in this combined theory and lab course. Subject matter and projects will vary according to industry and student needs, and the course may be repeated for credit within institutional policy. Upon completion, students will demonstrate competencies designed to assess course objectives.

**MAS 161 CONCRETE BLOCK MASONRY 3 HOURS**

*Prerequisite(s): MAS 111 and/or as required by program*  
*Co-requisite(s): MAS 121 and/or as required by program*  
This course provides practical application of concrete block advanced laying techniques. Emphasis is placed on developing skill in laying concrete block, constructing and reinforcing walls, joints, and sample panels and prisms. Upon completion, the student should be able to construct concrete block walls to entry-level standards.

**MAS 162 BRICK MASONRY LAB 3 HOURS***Prerequisite(s): MAS 111 and/or as required by program**Co-requisite(s): MAS 121 and/or as required by program*

This course provides practical application of advanced brick laying techniques. Emphasis is placed on developing skill in laying brick, constructing and reinforcing walls, joints, and sample panels and prisms. Upon completion, the student should be able to construct brick walls to entry-level standards.

**MAS 171 RESIDENTIAL/ COMMERCIALS 3 HOURS***Prerequisite(s): MAS 111 and/or as required by program**Co-requisite(s): MAS 131 and/or as required by program*

This course provides application of residential and commercial techniques for plans and layouts, as well as brick veneer, composite walls, expansion joints, and moisture control. Emphasis is placed on developing skill in reading residential and commercial drawings and applying specifications to acceptable code standards, job costing, job preparation, and brick and block moisture control. Upon completion, the student should be able to demonstrate use of scaling rule for a set of plans, identify and sketch standard symbols for walls, openings, floors, and materials, estimate job costs according to plan, utilize appropriate methods to ensure moisture control, lay brick and block to the line, and build brick and block foundations to entry level standards.

**MAS 181 SPECIAL TOPICS IN MASONRY 3 HOURS***Prerequisite(s): As required by program*

These courses provide specialized instruction in various areas related to the industry. Emphasis is placed on meeting students' needs.

**MAS 211 STONE MASONRY 3 HOURS***Prerequisite(s): MAS 131, MAS 171, and/or as required by program**Co-requisite(s): MAS 251 and/or as required by program*

This course provides an introduction to stone and decorative masonry techniques, fireplace construction, and repair and restoration of brick structures. Topics include brick arches, fireplace construction, stone materials, laying techniques, moisture control, wall supports, joints, coping, sample panels, and cultured stone. Upon completion, the student should be able to identify appropriate materials and techniques for the stated topics.

**MAS 221 SPECIALIZED MASONRY 3 HOURS***Prerequisite(s): MAS 211, MAS 251, MAS 252**Corequisite(s): MAS 261*

This course provides an introduction to geographically specific masonry techniques. Topics include panel construction, acid brick, refractories, structural glazed tile, glass block, passive solar design, barrier walls and hollow metal frames. Upon completion, students should be able to define and recognize types and applications of specialized techniques and materials as well as identify proper installation and laying techniques.

**MAS 231 BASIC CEMENT MASONRY 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): MAS 271 and/or as required by program*

This course is designed to introduce the various types of cement masonry, concrete requirements, flat work, estimating, and finishing methods. Emphasis is placed on estimating

concrete for small to medium size projects, flat work, form work, footings, and the correct tools and methods of finishing and placing.

**MAS 251 STONE MASONRY 3 HOURS***Prerequisite(s): MAS 131, MAS 171, and/or as required by program**Co-requisite(s): MAS 211 and/or as required by program*

This course provides practical application of stone and decorative masonry techniques, repair and restoration of brick structures, and brick arches. Emphasis is placed on developing skill in performing these techniques. Upon completion, the student should be able to lay stone, repair and restore brick structures, and build brick arches to entry-level standards.

**MAS 252 FIREPLACE CONSTRUCTION 3 HOURS***Prerequisite(s): MAS 131, MAS 171, and/or as required by program**Co-requisite(s): MAS 211 and/or as required by program*

This course provides practical application of techniques for constructing fireplaces and other decorative work. Emphasis is placed on developing skill in constructing decorative masonry techniques. Upon completion, the student should be able to construct a variety of fireplaces to entry-level standards.

**MAS 253 BRICK ARCHES LAB 3 HOURS***Prerequisite(s): MAS 131, MAS 171, and/or as required by program**Co-requisite(s): MAS 211 and/or as required by program*

This course provides practical application of techniques of constructing brick arches and other decorative work. Emphasis is placed on developing skill in constructing decorative masonry techniques. Upon completion, the student should be able to construct brick arches and other decorative masonry techniques to entry-level standards.

**MAS 271 BASIC CEMENT MASONRY LAB 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): MAS 231 and/or as required by program*

This course introduces the students to basic concrete masonry, including the use of various tools, estimating, and placing concrete. Emphasis is placed on correct methods used in placing concrete, finishing concrete, placing forms, and proper care of concrete tools. Upon completion of this course, the student should demonstrate entry-level skills for placing, finishing, estimating, and curing concrete.

**MAS 281 SPECIAL TOPICS IN MASONRY 3 HOURS***Prerequisite(s): As required by program*

These courses provide specialized instruction in various areas related to the industry. Emphasis is placed on meeting students' needs.



<b>NUR 111</b>	<b>FUNDAMENTALS OF NURSING</b>	<b>4 HOURS</b>
<i>Prerequisite(s): Validation and/or as required by program</i>		
<i>Co-requisite: NUR 121</i>		
This course presents concepts and theories of the art and science of nursing. Emphasis is placed on the application of the nursing process to provide and manage care as a member of the discipline of nursing. Students are introduced to the concepts of needs, growth and development, safety, communication, teaching-learning, critical thinking, ethical-legal, nursing history, and the program's philosophy of nursing. Students should be able to demonstrate beginning competence in providing care for individuals with common health alterations.		
<b>NUR 121</b>	<b>CLINICAL NURSING SKILLS</b>	<b>2 HOURS</b>
<i>Prerequisite(s): Validation and/or as required by program</i>		
<i>Co-requisite: NUR 111</i>		
This course presents psychomotor nursing skills needed to assist individuals in meeting basic human needs. Skills necessary for maintaining microbial, physical, and psychological safety are introduced along with skills needed in therapeutic interventions. Students will demonstrate a beginning level of competency in performing basic nursing skills. (Lab/Clinical required.)		
<b>NUR 131</b>	<b>HEALTH ASSESSMENT</b>	<b>1 HOUR</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to provide students the opportunity to learn and practice history taking and physical examination skills with individuals of all ages. The focus is on symptom analysis along with physical, psychosocial, and growth and development assessment. Students will be able to utilize critical thinking skills in identifying health alterations, formulating nursing diagnosis and documenting findings appropriate to nursing. (Lab required)		
<b>NUR 193</b>	<b>DRUG DOSAGES AND SOLUTIONS</b>	<b>2 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to introduce the student to the basic principles utilized in the calculation of drug dosage and solutions. It includes a review of basic mathematical principles. Emphasis is placed on abbreviations, symbols, systems of measurement with conversions between systems, and calculations of dosage and solutions problems for all age groups.		
<b>NUR 200</b>	<b>BASIC LIFE SUPPORT UPDATE</b>	<b>1 HOUR</b>
<i>Prerequisite(s): As required by program</i>		
This course provides the student a review of concepts related to cardiopulmonary resuscitation. Emphasis is placed on single-rescuer of the adult, two-rescuer CPR, managing obstructed airways, and infant and child CPR. The student should be able to successfully demonstrate CPR.		
<b>NUR 201</b>	<b>SPECIALIZED AREA OF STUDY</b>	<b>1-2 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is directed toward the specialized study of theory experiences in a selected area as determined by student, employers, and/or the program. Emphasis is placed on the		

development of knowledge in an area of interest to the student. The student should be able to meet the objectives of the course as approved by the instructor.

**NUR 202**                      **SPECIALIZED AREA OF STUDY**                      **2 HOURS**

*Prerequisite(s): As required by program*

This course is directed toward the specialized study of nursing experiences in a selected area as determined by students, employers, and/or the program. Emphasis is placed on the development of knowledge and skills in an area of interest to the student. The student should be able to meet the theoretical and skill objectives of the course as approved by the instructor.

**NUR 203**                      **SPECIALIZED AREA OF STUDY**                      **1 HOUR**

*Prerequisite(s): As required by program*

This course is directed toward the application of clinical experience in a selected area as determined by students, employers, and/or the program. Emphasis is placed on the development of knowledge and skills in an area of interest to the student. The student should be able to meet the theoretical and skill objectives of the course as approved by the instructor/preceptor. (Clinical required)

**NUR 204**                      **COMPUTER APPLICATIONS IN NURSING**                      **1 HOUR**

*Prerequisite(s): As required by program*

This course includes concepts related to computer and technology applications in nursing. Emphasis is placed on computer hardware and software utilized in education, research, and health care settings. Students should be able to incorporate computer technology into nursing practice. (Lab required)

**NUR 205**                      **ADVANCED CONCEPTS OF GERIATRIC NURSING**                      **2 HOURS**

*Prerequisite(s): As required by program*

This course is designed to enhance the student's knowledge of nursing care of the older adult. Emphasis is placed on current issues and research in gerontology. The student should be able to integrate research findings into nursing practice.

**NUR 206**                      **ADVANCED NUTRITION CONCEPTS**                      **2-3 HOURS**

*Prerequisite(s): As required by program*

This course includes concepts related to normal nutrition and modifications for therapeutic diets throughout the life cycle. Topics include enternal/parenteral feedings, disabling disease, rehabilitation, and drug-nutrient interactions. The student should be able to provide diet therapy for clients in acute care as well as community settings.

**NUR 207**                      **DIRECTED STUDY IN NURSING**                      **1 HOUR**

*Prerequisite(s): As required by program*

This course is designed to increase the opportunity for exploring, reading, and reporting on specific theoretical topics related to the field of nursing. Topics must be approved by the instructor. Emphasis is placed on the development of knowledge in an area of interest to the student. The student should be able to meet the objectives of the course as approved by the department.

<b>NUR 208</b>	<b>DIRECTED STUDY IN NURSING</b>	<b>2 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to increase the opportunity for exploration related to the field of nursing. Topics must be approved by the instructor. Emphasis is placed on the development of knowledge in an area of interest to the student. The student should be able to meet the objectives of the course as approved by the department.		
<b>NUR 209</b>	<b>DIRECTED STUDY IN NURSING</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to provide the opportunity for study in a specific area of nursing. Emphasis is placed on the increase in knowledge of an area of interest to the student. The student should be able to meet the objectives of the course as approved by the department.		
<b>NUR 210</b>	<b>MOBILITY PLACEMENT REVIEW</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to provide LPN Mobility students knowledge to assist in preparation for proficiency exams. Emphasis is placed on review and update of relevant nursing theory, process and skills. The student should be able to pass designated proficiency exams. (Lab required)		
<b>NUR 211</b>	<b>NURSING CONCEPTS FOR MOBILITY STUDENTS</b>	<b>5 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. The program's philosophy, objectives, and conceptual framework are also introduced. Emphasis is placed on the nursing process, communication, selected theory, and nursing skills and the role of the registered nurse. Upon completion, students should be able to successfully transition into the ADN program. (Clinical required)		
<b>NUR 231</b>	<b>HEALTH ASSESSMENT FOR NURSES</b>	<b>3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course is designed to build on the knowledge and skills of graduate nurses to enhance the practitioner's performance of physical examinations and history taking. Techniques for a systematic head-to-toe approach of all body systems will be taught and validated through return demonstration. Participants will be expected to document normal and abnormal health assessment findings and interpret pertinent findings in order to identify nursing diagnosis. The participant should be able to utilize comprehensive health assessment skills in a variety of health care settings. (Lab required)		
<b>NUR 232</b>	<b>ADVANCED MANAGEMENT OF DYSRHYTHMIAS</b>	<b>1 HOUR</b>
<i>Prerequisite(s): Permission of the department and/or as required by program</i>		
This course is designed to assist the student in the identification and treatment of cardiac emergencies. Emphasis is placed on invasive and non-invasive treatment. The student should be able to identify complex dysrhythmias and implement treatment modalities. (Lab required)		

<b>NUR 241</b>	<b>BASIC PHARMACOLOGY</b>	<b>1 HOUR</b>
<i>Prerequisite(s): As required by program</i>		
This course introduces the student to basic principles of pharmacology and the skills necessary to safely administer medications. Areas of emphasis include legal implications, pharmacokinetics, pharmacodynamics, calculation of drug dosages, and medication administration. Students will be able to demonstrate accurate dosage calculations, correct medication administration and knowledge of drug classifications. (Lab required)		
<b>NUR 242</b>	<b>ADVANCED PHARMACOLOGY</b>	<b>2 HOURS</b>
<i>Prerequisite(s): NUR 241, Validation, and/or as required by program</i>		
This course is designed to provide the student comprehensive knowledge of drug classifications and applications of pharmacology. Emphasis is placed on nursing responsibility, accountability, and application of the nursing process regarding drug therapy. The actions, dosages, side effects, adverse reactions are presented for drug prototypes from each classification of drugs. The student will be able to synthesize knowledge of drug therapy in a variety of settings with individuals across the life span.		
<b>NUR 251</b>	<b>ADULT NURSING I</b>	<b>5 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides an opportunity to utilize the provider of care and manager of care roles to meet nursing needs of adults in a variety of settings. Emphasis is placed on the aging process as it applies to normal developmental changes and alterations in health commonly occurring in the adult. Students should be able to apply the nursing process in caring for adults in a variety of settings. (Clinical required)		
<b>NUR 252</b>	<b>ADULT NURSING II</b>	<b>5 HOURS</b>
<i>Prerequisite(s): NUR 251 and/or as required by program</i>		
This course introduces concepts related to the nursing care of individuals experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals. Students should be able to apply the nursing process to individuals experiencing acute and chronic health alterations in a variety of settings. (Clinical required)		
<b>NUR 253</b>	<b>ADULT NURSING III</b>	<b>5 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course provides expanded concepts related to nursing care for individuals experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health in a variety of settings. (Clinical required)		
<b>NUR 254</b>	<b>CRITICAL CARE NURSING</b>	<b>2-3 HOURS</b>
<i>Prerequisite(s): As required by program</i>		
This course includes concepts related to issues and trends in caring for critically ill individuals of all ages. Topics include monitoring techniques, recognition and management of dysrhythmias and care modalities for the critically ill. The student should be able to provide nursing care for individuals in acute and rehabilitative settings. (Clinical required)		

**NUR 262 ADULT-CHILD NURSING I 5 HOURS***Prerequisite(s): Validation, and/or as required by program*

This course introduces concepts related to the nursing care of adults and children experiencing acute and chronic alterations in health. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Students should be able to apply the nursing process to care of individuals experiencing acute and chronic health alterations in a variety of settings. (Clinical required)

**NUR 263 ADULT-CHILD NURSING II 5 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides expanded concepts related to nursing care for adult and children experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health in a variety of settings. (Clinical required)

**NUR 264 ADULT-CHILD NURSING III 4 HOURS***Prerequisite(s): As required by program*

This course concludes concepts related to nursing care for adult and children experiencing common complex alterations in health. Emphasis is placed on the nurse's role as a member of a multidisciplinary team and as a manager of care for a group of individuals. Students should be able to provide comprehensive nursing care for groups of individuals with common complex alterations in health in a variety of settings. (Clinical required)

**NUR 265 ADVANCED NURSING I 6 HOURS***Prerequisite(s): Validation and/or as required by program*

This course introduces concepts related to the nursing care of adults and children experiencing acute and chronic alterations in health and concepts related to the psychosocial needs of individuals. Emphasis is placed on utilizing the nursing process as a framework for providing and managing nursing care to individuals along the wellness-illness continuum. Students will be able to synthesize knowledge of drug therapy and apply the nursing process to individuals experiencing acute and chronic health alterations in a variety of settings. (Clinical required)

**NUR 266 ADVANCED NURSING II 6 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides expanded concepts related to nursing care of adults and children experiencing common complex alterations in health and concepts related to the psychosocial needs of individuals. Emphasis is placed on the nurses' role as a member of a multidisciplinary team and as a manager of care for groups of individuals. Students will be able to synthesize knowledge of drug therapy and provide comprehensive nursing care for groups of individuals with common complex alterations in health in a variety of settings. (Clinical required)

**NUR 267 ADVANCED NURSING III 6 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides expanded concepts related to nursing care of adults and children experiencing common complex alterations in health and concepts related to the psychosocial needs of individuals. Emphasis is placed on the nurses' role as a member of a multidisciplinary team and as a manager of care

for groups of individuals. Students will be able to synthesize knowledge of drug therapy and provide comprehensive nursing care for groups of individuals with common complex alterations in health in a variety of setting. (Clinical required)

**NUR 269 FAMILY CENTERED NURSING 6 HOURS***Prerequisite(s): As required by program*

This course provides a family centered approach to the care of the childbearing and childrearing family. Emphasis is on the normal concepts relating to the antepartal, intrapartal, postpartal, neonatal periods and the concepts of growth and development, health promotion and common alterations in health. The student should be able to manage and provide care to the childbearing and childrearing family in a variety of settings.

**NUR 271 MATERNAL-NEWBORN NURSING 4 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides a family centered approach to the nursing care of the childbearing family. Emphasis is placed on concepts related to the antepartal, intrapartal, post-partal, and neonatal periods. The student should be able to manage and provide care to the childbearing family in a variety of health care settings. (Clinical required)

**NUR 272 PEDIATRIC NURSING 4 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides a family centered approach to the nursing of children from infancy through adolescence. Emphasis is placed on concepts of growth and development, health promotion and alterations in health. The student should be able to utilize the nursing process in providing and managing nursing care to the family in a variety of health care settings. (Clinical required)

**NUR 274 CONCEPTS OF PEDIATRIC NURSING I 2 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides a family centered approach to the care of children from infancy through adolescence. Emphasis is on the concepts of growth and development, health promotion, and common alterations in health. The student should be able to apply these concepts in providing and managing nursing care in a variety of health care settings. (Clinical required)

**NUR 275 CONCEPTS OF PEDIATRIC NURSING II 2 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides expanded concepts related to care of children from infancy through adolescence. Emphasis is on utilizing the nursing process as a framework for providing and managing care for children. The student should be able to provide comprehensive care for children experiencing acute and chronic health alterations in a variety of settings. (Clinical required)

**NUR 276 CONCEPTS OF MATERNAL-NEWBORN NURSING I 2 HOURS***Prerequisite(s): Validation and/or as required by program*

This course provides a family centered approach to the care of the childbearing family. Emphasis is placed on the normal concepts relating to the antepartal, intrapartal, post-partal, and

neonatal periods. The student should be able to manage and provide care to the childbearing family in a variety of settings. (Clinical required)

**NUR 277**                    **CONCEPTS OF MATERNAL- 2 HOURS**  
**NEWBORN NURSING II**

*Prerequisite(s):*    *As required by program*

This course provides expanded concepts related to the care of the childbearing family. Emphasis is on common and acute alternations in health during the antepartal, intrapartal, postpartal, neonatal periods. The student should be able to provide comprehensive care in a variety of settings. (Clinical required)

**NUR 278**                    **CONCEPTS OF 2 HOURS**  
**PSYCHOSOCIAL NURSING I**

*Prerequisite(s):*    *Validation and/or as required by program*

This course provides concepts related to the psychosocial needs of individuals. Emphasis is placed on the cultural, family and individual beliefs that influence mental health and illness. Common alterations in mental health, psychodynamic theories, and treatment modalities are included. The student should be able to apply these concepts to the care of individuals experiencing alterations in mental health in a variety of settings. (Clinical required)

**NUR 279**                    **CONCEPTS OF 2 HOURS**  
**PSYCHOSOCIAL NURSING II**

*Prerequisite(s):*    *NUR 278, Validation, and/or as required by program*

This course provides expanded concepts related to the psychosocial needs of individuals. Emphasis is on common and acute alteration in mental health and the related intervention modalities. The student should be able to apply these concepts to the care of individuals experiencing acute and chronic alterations in mental health in a variety of settings. (Clinical required)

**NUR 280**                    **PSYCHOSOCIAL NURSING 4 HOURS**

*Prerequisite(s):*    *Validation, and/or as required by program*

This course focuses on psychosocial nursing concepts as they relate to individuals in a variety of settings. Utilizing a multidisciplinary approach, emphasis is placed on psychodynamic theories as they relate to mental health and psychiatric alterations. Students will be able to apply the nursing process in providing care to individuals exhibiting psychosocial needs. (Clinical required)

**NUR 281**                    **STRESS MANAGEMENT 1-2 HOURS**

*Prerequisite(s):*    *As required by program*

This course provides an enlightened approach to recognizing and dealing with stress and stressors. A variety of stress reduction techniques, such as art therapy, humor, poetry, progressive relaxation, imagery, journal writing, and music therapy are taught through class participation. The participant should be able to utilize a variety of methods for reducing stress in self and others.

**NUR 291**                    **TRANSITION INTO 2-3 HOURS**  
**NURSING PRACTICE**

*Prerequisite(s):*    *As required by program*

This course prepares the student for transition into nursing practice. Emphasis is placed on the roles of the professional nurse, concepts of leadership and management, and trends and

issues in health care delivery. The student will apply these concepts in the clinical experience. (Clinical required)

**NUR 292**                    **NURSING LICENSURE 2 HOURS**  
**EXAMINATION REVIEW**

*Prerequisite(s):*    *As required by program*

This course is designed to assist the student in preparation for the nursing licensure examination. Emphasis is placed on test taking skills, computer assisted simulations, and content basic to the practice of nursing. The student should be able to pass the nursing licensure exam.

**NUR 293**                    **SAFETY INTERVENTIONS IN 2 HOURS**  
**NURSING**

*Prerequisite(s):*    *As required by program*

This course is taught by using the current guidelines set forth in OSHA, and is designed to ensure that the pre-requirements of clinical affiliating agencies are met. The course focus is in the use of interventions related to family domestic violence, standard/universal precautions/bloodborne pathogens, infection control, communicable diseases and review of selected emergency procedures. Upon course completion students should be able to participate in the clinical settings.

**OFFICE ADMINISTRATION (OAD)**

**OAD 100**                    **BASIC KEYBOARDING 1-3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to enable the student to develop touch-keyboarding skills for efficient use of the typewriter or microcomputer through classroom instruction and outside lab. Emphasis is on speed and accuracy in keying alphabetic, symbol, and numeric information. Upon completion, the student should be able to demonstrate proper technique while keying on a typewriter or microcomputer keyboard.

**OAD 101**                    **BEGINNING KEYBOARDING 3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to enable the student to use the touch method of keyboarding through classroom instruction and outside lab. Emphasis is on speed and accuracy in keying alphabetic, symbol, and numeric information using the typewriter or microcomputer keyboard. Upon completion, the student should be able to demonstrate proper technique and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of basic business documents such as, letters, reports, and tables, etc.

**OAD 102**                    **KEYBOARDING SKILL 1-3 HOURS**  
**BUILDING**

*Prerequisite(s):*    *OAD 101 and/or as required by program*

This course is designed to develop speed and accuracy in the use of the keyboard through classroom instruction and outside lab. Emphasis is on identification of deficiencies and incorrect technique through the use of individualized prescriptive practice. Upon completion the student should be able to demonstrate improved speed and accuracy.

**OAD103            INTERMEDIATE            3 HOURS**  
**KEYBOARDING**

*Prerequisite(s): OAD 101 and/or as required by program*

This course is designed to assist the student in increasing speed and accuracy using the touch method of keyboarding through classroom instruction and outside lab. Emphasis is on the production of business documents such as memoranda, letters, reports, tables, and outlines. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of business documents.

**OAD104            ADVANCED KEYBOARDING    3 HOURS**

*Prerequisite(s): OAD 103 and/or as required by program*

This course is designed to assist the student in continuing to develop speed and accuracy using the touch method of keyboarding through classroom instruction and outside lab. Emphasis is on the production of business documents using decision-making skills. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of high-quality business documents.

**OAD 110            NAVIGATING WINDOWS      3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to introduce the student to the Windows environment through classroom instruction and outside lab. Emphasis is on Windows as a graphical user interface and includes operations and applications that use the Windows environment. Upon completion, the student should be able to demonstrate proficiency in the operation and management of hardware and software as defined by the course syllabus.

**OAD 125            WORD PROCESSING            3 HOURS**

*Prerequisite(s): OAD 101 and/or as required by program*

This course is designed to provide the student with basic word processing skills through classroom instruction and outside lab. Emphasis is on the utilization of software features to create, edit and print common office documents. Upon completion, the student should be able to demonstrate the ability to use industry-standard software to generate appropriately formatted, accurate, and attractive business documents such as memo, letters and reports.

**OAD 126            ADVANCED WORD            3 HOURS**  
**PROCESSING**

*Prerequisite(s): OAD 125 and/or as required by program*

This course is designed to increase student proficiency in using the advanced word processing functions through classroom instruction and outside lab. Emphasis is on the use of industry-standard software to maximize productivity. Upon completion, the student should be able to demonstrate the ability to generate complex documents such as forms, newsletters, and multi-page documents.

**OAD130            ELECTRONIC            3 HOURS**  
**CALCULATIONS**

*Prerequisite(s): As required by program*

This course is designed to teach the touch system and problem-solving. Emphasis is on basic mathematical functions. Upon completion, the student should be able to demonstrate an acceptable rate of speed and accuracy, as defined by the course

syllabus, to solve problems based on typical business applications.

**OAD 200            MACHINE TRANSCRIPTION    3 HOURS**

*Prerequisite(s): OAD 103 and/or as required by program*

This course is designed to develop marketable skills in transcribing various forms of dictated material through classroom instruction and outside lab. Emphasis is on the use of microcomputers and a commercial word processing package. Upon completion, the student should be able to accurately transcribe documents from dictated recordings.

**OAD 201            LEGAL TERMINOLOGY        3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to familiarize the student with commonly used legal terms. Emphasis is on the word root building system combining Greek and Latin prefixes, suffixes, word roots, and forms that make medical terms easy to use. Upon completion, the student should be able to understand and use medical legal terminology.

**OAD 202            LEGAL TRANSCRIPTION      3 HOURS**

*Prerequisite(s): OAD 125 and/or as required by program*

This course is designed to familiarize students with legal terms and provide transcription skill development in the production of legal correspondence, forms, and court documents through classroom instruction and outside lab. Emphasis is on transcribing legal documents from dictated recordings. Upon completion, students should be able to demonstrate the ability to transcribe accurately appropriately formatted legal documents.

**OAD 203            LEGAL OFFICE            3 HOURS**  
**PROCEDURES**

*Prerequisite(s): OAD 125 and/or as required by program*

This course is designed to provide an awareness of the responsibilities and opportunities of professional support personnel in a legal environment through classroom instruction and outside lab. Emphasis is on legal terminology, the production of appropriate forms and reports, and the importance of office procedures and practices. Upon completion, the student should be able to perform office support tasks required for employment in a legal environment.

**OAD 211            MEDICAL TERMINOLOGY    3 HOURS**

*Prerequisite(s): As required by program*

This course is designed to familiarize the student with medical terminology. Emphasis is on the spelling, definition, pronunciation, and usage of legal terms. Upon completion, the student should be able to communicate effectively using medical terminology.

**OAD 212            MEDICAL TRANSCRIPTION    3 HOURS**

*Prerequisite(s): OAD 103 and/or as required by program*

This course is designed to orient students to standard medical reports, correspondence, and related documents transcribed in a medical environment through classroom instruction and outside lab. Emphasis is on transcribing medical records and operating a transcribing machine efficiently. Upon completion, the student should be able to accurately transcribe medical documents from dictated recordings.

**OAD 213            ADVANCED MEDICAL            3 HOURS  
TRANSCRIPTION**

*Prerequisite(s):*    *OAD 212 and/or as required by program*

This course is designed to develop skill in the transcription of documents generated in the medical office through classroom instruction and outside lab. Emphasis is on diagnostic studies, and laboratory, radiology, and pathology reports. Upon completion, the student should be able to demonstrate proficiency in the preparation of a variety of reports and forms used in the medical environment.

**OAD 214            MEDICAL OFFICE            3 HOURS  
PROCEDURES**

*Prerequisite(s):*    *OAD 101 and/or as required by program*

This course is designed to provide an awareness of the responsibilities and opportunities of professional support personnel in a medical environment through classroom instruction and outside lab. Emphasis is on medical terms, the production of appropriate forms and reports, and the importance of office procedures and practices. Upon completion, the student should be able to perform office support tasks required for employment in a medical environment.

**OAD 215            HEALTH INFORMATION            3 HOURS  
MANAGEMENT**

*Prerequisite(s):*    *As required by program*

This course is designed to promote an understanding of the structure, analysis and management of medical records through classroom instruction and outside lab. Emphasis is on filing and managing medical records; coding of diseases, operations and procedures; and the legal aspects of medical records. Upon completion, the student should be able to maintain medical records efficiently.

**OAD 217            OFFICE MANAGEMENT            3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to develop skills necessary for supervision of office functions. Emphasis is on issues relating to the combination of people and technology in achieving the goals of business in a culturally diverse workplace, including the importance of office organization, teamwork, workplace ethics, office politics, and conflict-resolution skills. Upon completion, the student should be able to demonstrate use of the tools necessary for effective supervision of people and technology in the modern office.

**OAD 218            OFFICE PROCEDURES            3 HOURS**

*Prerequisite(s):*    *OAD 101 and/or as required by program*

This course is designed to develop an awareness of the responsibilities and opportunities of the office professional through classroom instruction and outside lab. Emphasis is on current operating functions, practices and procedures, work habits, attitudes, oral and written communications, and professionalism. Upon completion, the student should be able to demonstrate the ability to effectively function in an office support role.

**OAD 227            INFORMATION PROCESSING            3 HOURS  
CONCEPTS**

*Prerequisite(s):*    *OAD 101 and/or as required by program*

This course is designed to introduce the basic concepts and applications of office information systems. Emphasis is on components and capabilities of systems used to produce,

communicate and manage information and career paths for office professionals. Upon completion, the student should be able to demonstrate knowledge of office information systems.

**OAD 230            ELECTRONIC PUBLISHING            3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to introduce the student to the elements and techniques of page design, layout and typography through classroom instruction and outside lab. Emphasis is on the use of current commercial desktop publishing software, graphic tools, and electronic input/output devices to design and print high-quality publications such as newsletters, brochures, catalogs, forms, and flyers. Upon completion, the student should be able to utilize proper layout and design concepts in the production of attractive desktop published documents.

**OAD 231            OFFICE APPLICATIONS            1-3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to provide the student with a foundation in the use of computerized equipment and application software as tools in the performance of a variety of office tasks through classroom instruction and outside lab. Emphasis is on the role of the office professional in the selection and application of appropriate technology to the specific task or combination of tasks. Upon completion, the student should be able to demonstrate proficiency in the selection of appropriate computerized tools to complete designated tasks.

**OAD 232            THE ELECTRONIC OFFICE            3 HOURS**

*Prerequisite(s):*    *As required by program*

This course is designed to enable the student to develop skill in the use of integrated software through classroom instruction and outside lab. Emphasis is on the use of computerized equipment, software, networking, and communications technology. Upon completion, the student should be able to satisfactorily perform a variety of office tasks using current technology.

**OAD 233            TRENDS IN OFFICE            3 HOURS  
TECHNOLOGY**

*Prerequisite(s):*    *As required by program*

This course is designed to address current trends in office technology through classroom instruction and outside lab. Emphasis is on technology relevant to the office environment such as electronic mail, multimedia interaction, presentation hardware and software, and Internet use. Upon completion, the student should be able to demonstrate an awareness of current technological applications for the modern office.

**OAD 240            CPS REVIEW            1-3 HOURS**

*Prerequisite(s):*    *As required by program*

This course, Certified Professional Secretary Review, is designed to provide skills and knowledge in behavioral science, office administration and technology, accounting and business, business law, economics, management, and communication. Emphasis is on the knowledge and skills required of those who qualify as professional administrative support. Upon completion, the student should be able to demonstrate knowledge and successful performance of skills in a variety of business-related areas.

**OAD 241 OFFICE CO-OP 1-3 HOURS***Prerequisite(s): As required by program*

This course is designed to provide the student with an opportunity to work in an office environment. Emphasis is on the integration of classroom learning with on-the-job experiences that relate meaningfully to office careers. Upon completion, the student should be able to demonstrate the ability to apply knowledge and skills gained in the classroom to an actual work situation.

**OAD 242 OFFICE INTERNSHIP 1-3 HOURS***Prerequisite(s): As required by program*

This course is designed to provide the students with an opportunity to work in an office environment. Emphasis is on the efficient and accurate performance of job tasks. Upon completion, the student should be able to demonstrate successful performance of skills required in an office support position.

**OAD 243 SPREADSHEET APPLICATIONS 3 HOURS***Prerequisite(s): As required by program*

This course is designed to provide the student with a firm foundation in the use of computerized equipment and appropriate software in performing spreadsheet tasks through classroom instruction and outside lab. Emphasis is on spreadsheet terminology and design, common formulas, proper file and disk management procedures. Upon completion, the student should be able to use spreadsheet features to design, format, and graph effective spreadsheets.

**OAD 244 DATABASE CONCEPTS 3 HOURS***Prerequisite(s): OAD 101 and/or as required by program*

This course is designed to provide the student with an understanding of the concepts of database management through classroom instruction and outside lab. Emphasis is on the use of database software for business applications. Upon completion, the student should be able to create and manipulate data files and format output as documents and reports.

**OAD 245 DATA ENTRY 3 HOURS***Prerequisite(s): OAD 101 and/or as required by program*

This course is designed to provide the student with a firm foundation in the use of computerized equipment and appropriate software in performing data-entry tasks through classroom instruction and outside lab. Emphasis is on the basic features of data-entry software, terminology, and proper file and disk management procedures. Upon completion, the student should be able to demonstrate a basic understanding of data-entry applications.

**OAD 246 OFFICE GRAPHICS AND PRESENTATIONS 3 HOURS***Prerequisite(s): OAD 125 and/or as required by program*

This course is designed to provide the student with a foundation in the use of the computer and appropriate application software in the production of business slides and presentations through classroom instruction and outside lab. Emphasis is on available software tools, presentation options and design as well as such presentation considerations as the make-up of the target audience. Upon completion, the student should be able to demonstrate the ability to design and produce a business presentation.

**OAD 247 SPECIAL PROJECTS 1-3 HOURS***Prerequisite(s): OAD 125 and/or as required by program*

This course is designed to provide the student with an opportunity for the expansion of knowledge in an area of special interest under the direct supervision of instructor. Emphasis is on the student's use of modern technology to study, research and /or accumulate additional knowledge or improve skills in a specialized office support area. Upon completion, the student should be able to demonstrate enhanced knowledge and/or skill gained through an individualized project.

**PHOTOGRAPHY AND FILM (PFC)****PFC 173 PHOTOGRAPHY I 3 HOURS***Prerequisite(s): As required by program*

This course, to be taken in sequence, is an introduction to photography. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student will be able to produce well-composed photographs.

**PFC 174 PHOTOGRAPHY II 3 HOURS***Prerequisite(s): As required by program*

This is a sequence to Photography I and serves as an introductory photography course. Emphasis is placed on aesthetic as well as technical aspects of photography. Upon completion, the student will be able to produce well-composed photographs.

**PLUMBING (PLB)****PLB 111 INTRODUCTION TO PLUMBING 3 HOURS***Prerequisite(s): As required by program*

This course covers fundamental plumbing principles, practices, and history. Topics include basic plumbing principles, safety, job seeking skills, blueprint reading, plumbers' math, shop orientation, and school policy. Upon completion, students will be able to seek employment, understand basic plumbing principles, read and interpret blueprints, work safely, and use formulas to solve plumbing problems involving measurement and layouts.

**PLB 112 PLUMBING APPLICATION 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 111*

This course is an application of PLB 111. Topics include, orientation, basic plumbing principles, safety, history, plumber's math, job seeking skills, interpreting drawings, making drawings using rough-in sheets, and measurements. Upon completion students will be able to apply basic plumbing principles.

**PLB 113 PIPES & FITTING 3 HOURS***Prerequisite(s): As required by program*

This course includes the theory of joining pipe and fittings. Topics include, methods of joining pipe and fittings, selecting and using power tools, and methods of securing piping. Upon completion students will be able to identify pipe and fittings, identify tools, properly care for tools and identify various types of pipe securing devices.

**PLB 114 JOINING PIPES & FITTING 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 113 and/or as required by program*

This course covers identifying pipe and fittings, proper methods for joining all types of pipe and fittings, hanging and securing pipe and using materials and tools. Emphasis is on all plumbing materials, tools, suppliers, equipment and methods. Upon completion, students will be able to join various pipe and fittings.

**PLB 115 PRESSURE & NON-PRESSURE SYSTEMS 3 HOURS***Prerequisite(s): As required by program*

This course covers pressure and non-pressure systems including piping for potable water, drainage, waste, vent, gas, air, and water. Topics include types of plumbing systems, and system design and size. Upon completion, students will be knowledgeable of system functions.

**PLB 116 PRESSURE & NON-PRESSURE APPLICATIONS 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 115 and/or as required by program*

This course is an application of PLB 115. Emphasis is on the different kinds of plumbing systems, their design, installation and function. Upon completion, students will be able to rough-in plumbing systems.

**PLB 117 PLUMBING CODES 3 HOURS***Prerequisite(s): As required by program*

This course includes reading and interpreting the Southern Standard Code (SBCCI), local codes and general regulations. Emphasis is on basic principles, definitions, material, facility requirements, and technical review. Upon completion, students will be able to read and interpret state and local codes.

**PLB 118 CODE APPLICATION 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 117 and/or as required by program*

This course is an application of PLB 117. Emphasis is on fixture unit value, sizing systems, minimum plumbing requirements and construction of pressure and non-pressure systems according to code. Upon completion students will be able to calculate and construct pressure and non-pressure systems.

**PLB 211 PLUMBING & REPAIR & INSTALLATION 3 HOURS***Prerequisite(s): As required by program*

This course enables students to read and follow schematics/diagrams/rough-in sheets to install or repair plumbing fixtures, to troubleshoot and make repairs. Topics include removing, replacing and repairing plumbing fixtures, new installations and troubleshooting. Upon completion, students will be able to make plumbing repairs and install plumbing fixtures.

**PLB 212 PLUMBING REPAIR & INSTALLATION LABORATORY 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 211 and/or as required by program*

This course is an application of PLB 211. Topics include repairing and installing plumbing fixtures, and choosing appropriate fixtures for the job. Upon completion, students will

be able to install new fixtures and remove, repair, and replace existing plumbing fixtures.

**PLB 213 PROCESS PIPING 3 HOURS***Prerequisite(s): As required by program*

This course focuses on various piping procedures and material used to transport materials in industrial processes. Topics include modern materials and installation techniques. Upon completion students will be able to identify and will understand the techniques of process piping installation, layouts and design.

**PLB 214 PROCESS PIPING APPLICATIONS 3 HOURS***Prerequisite(s): As required by program**Co-requisite(s): PLB 213 and/or as required by program*

This course is an application of PLB 213. Topics include installing process piping. Upon completion, students will be able to install process piping.

**PLB 217 PUMPS AND COMPRESSORS 3 HOURS***Prerequisite(s): As required by program*

This course introduces students to pump and compressor equipment used in plumbing systems. Topics include using mechanical means to move fluid through piping systems. Upon completion, students will have skills needed in selecting and installing pumps and compressors.

**PLB 218 PUMP AND COMPRESSOR APPLICATIONS 3 HOURS***Prerequisite(s): As required by program*

This course covers pumps and compressors in plumbing applications. Topics include selection, installation, maintenance and repair of pumps and compressors. Upon completion, students will be able to trouble shoot remove, repair, maintain, and install pumps and compressors.

**PLB 219 MEDICAL GAS 3 HOURS***Prerequisite(s): As required by program*

This course covers the performance, maintenance, installation, and testing of medical gas systems. The major topics are nonflammable and flammable gas systems, laboratory gas, and vacuum systems and their sub-assemblies. Upon completion students will understand the hazards associated with medical gas systems, and will be knowledgeable of system components.

**RADIO AND TV BROADCASTING (RTV)****RTV 100 INTRODUCTION 3 HOURS***Prerequisite(s): As required by program*

This course surveys the history, growth, and development of radio, television, and related media in the United States with emphasis on social, cultural, and economic implications and special consideration given to regulations and current issues.

**RTV 106 BROADCAST ANNOUNCING 3 HOURS***Prerequisite(s): RTV 100 and/or as required by program*

This course offers a study of standard American and foreign pronunciation for radio, television, and related media. Practice in the skills of music announcing, sports-casting, interviewing, copy interpretation, and speaking ad lib is included.

**RTV 116 RADIO PRODUCTION AND PROGRAMMING 3 HOURS**

*Prerequisite(s):* RTV 100 and/or as required by program  
Theory and application of audio media writing and production techniques are covered in this course. Emphasis is placed on effective use of words, music and/or sound effects in the production of audio programming for radio.

**RTV 117 TELEVISION PRODUCTION 3 HOURS**

*Prerequisite(s):* RTV 100 and/or as required by program  
The theory and application of television media writing and production techniques are covered in this course through an examination of the equipment, process, and technology required in production for television and related media.

**RTV 143-145 PRACTICUM IN RADIO OR TELEVISION BROADCASTING 1-3 HOURS**

*Prerequisite(s):* As required by program  
These courses offer supervised campus experience in radio or television broadcasting with emphasis is the planning, production and editing of electronic media announcements and programs.

**RTV 206 BROADCAST SALES, COPYWRITING, AND ADVERTISING 3 HOURS**

*Prerequisite(s):* As required by program  
This course covers theory and application of commercial and public service copy preparation techniques of radio, television, and related media. Advertising theory and audience research are also examined.

**RTV 207 BROADCAST NEWS 3 HOURS**

*Prerequisite(s):* RTV 100, 106 and/or as required by program  
This course covers theory and application of news gathering, writing, editing, and performance for electronic media, including news, sports, commentaries, editorials, documentaries, and public affairs programming.

**RTV 216 ADVANCED RADIO PRODUCTION AND PROGRAMMING 3 HOURS**

*Prerequisite(s):* RTV 116 and/or as required by program  
This course is a continuation of RTV 116 with emphasis on broadcasting research, ratings, sales and management theory and applications.

**RTV 217 ADVANCED TELEVISION PRODUCTION 3 HOURS**

*Prerequisite(s):* RTV 117 and/or as required by program  
This course is a continuation of RTV 117 with emphasis on television producing, directing, and editing theory and applications.

**RTV 220 BROADCAST REGULATION 3 HOURS**

*Prerequisite(s):* RTV 116 or RTV 117 and/or as required by program  
This course covers historical development of control of radio, television and related media by agencies, groups, and organizations through legal, social, and economic means.

**RTV 241-242 INTERNSHIP IN RADIO OR TELEVISION BROADCASTING 1-3 HOURS**

*Prerequisite(s):* RTV 216 or 217 and/or required by program

These courses offer supervised field experience in radio or television broadcasting or related areas.

**RTV 243-245 PRACTICUM IN RADIO OR TELEVISION BROADCASTING 1-3 HOURS**

*Prerequisite(s):* RTV 143, 144, 145, and/or as required by program

These courses are a continuation of the RTV 143, 144, and 145 sequence offering supervised campus experience in radio, television, or related media.

**SPEECH (SPC)****SPC 103 ORAL COMMUNICATION SKILLS 2-3 HOURS**

*Prerequisite(s):* As required by program  
This course introduces the basic concepts of interpersonal communication and the oral communication skills necessary to interact with co-workers and customers, and to work effectively in teams. Topics include overcoming barriers to effective communication, effective listening, applying the principles of persuasion, utilizing basic dynamics of group discussion, conflict resolution, and positive communication patterns in the business setting. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, develop a businesslike personality, and effectively present themselves before co-workers and the public.

## GET INVOLVED . . .

### Honorary Societies

#### Kappa Beta Delta

- For the Business and Computer Technologies Department ONLY

#### Phi Theta Kappa

- ALL Majors

### Competitive Organizations

#### AITP

- Computer Science Students ONLY

#### Phi Beta Lambda

- All Majors

#### VICA

- Career Technical Students ONLY