

SUMMER 2010

# course catalog



**SOUTHERN  
CRESCENT**

**TECHNICAL COLLEGE**



**SOUTHERN  
CRESCENT**  

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**TECHNICAL COLLEGE**

## **SUMMER 2010 COURSE CATALOG**

**Flint River Campus**  
**1533 Highway 19 South**  
**Thomaston, GA 30286**  
**706-646-6148**  
**800-752-9681**

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**Griffin, GA 30223**  
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**Butts County Center**  
**1578 Highway 16 West**  
**Jackson, GA 30233**  
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**Jasper County Center**  
**112 Industrial Park Drive**  
**Monticello, GA 31064**  
**706-468-9930**

**Taylor County Center**  
**196 East Main Street**  
**Butler, Ga 31006**  
**478-862-2323**

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**Southern Crescent Technical College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Southern Crescent Technical College. You may also visit the website: <http://www.sacscoc.org>.**

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# ACADEMIC DEPARTMENTS

**Arts & Sciences      Business Technology**

**Allied Health      Public Services      Industrial Studies**

## Associate Degree (AAS) Programs

<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
AC03	Accounting	X	X	
AI03	Air Conditioning Technology	X		
UTA3	Automotive Technology	X		
BAT3	Business Administrative Technology	X	X	
BMA3	Business Management	X	X	
CIP3	Computer Programming	X		
CJ03	Criminal Justice Technology	X	X	
CUL3	Culinary Arts	X		
CIB3	Database Specialist	X		
DR03	Drafting Technology	X		
0003	Early Childhood Education	X	X	
EFA3	Electronics Technology	X	X	
EH03	Environmental Horticulture	X		
FOR3	Forensic Science Technology	X		
AHN3	Health	X	X	
HIT3	Health Information Technology	X		
ICS3	Industrial Systems Technology	X		
IWA3	Internet Specialist- Web Applications & Services Development	X		
CIW3	Internet Specialist- Web Site Design	X		
CIN3	Networking Specialist	X		
ORT3	Orthopaedic Technology	X		
PS03	Paralegal Studies	X		
EM0	Paramedic Technology	X		
PH03	Pharmacy Technology	X		
PG03	Printing and Graphics Technology	X		
RT03	Radiologic Technology	X		
RE03	Respiratory Care Technology	X		
ST03	Surgical Technology	X		
THN3	Technical Studies	X		

## Diploma Programs

<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
AC02	Accounting	X	X	
AI02	Air Conditioning Technology	X	X	
AU02	Auto Collision Repair	X		
UTA4	Automotive Technology	X	X	
BA02	Barbering		X	
BAT2	Business Administrative Technology	X	X	
BMA2	Business Management	X	X	
CR02	Carpentry	X		
CIP4	Computer Programming	X		
CMN2	Construction Management	X		
CS02	Cosmetology	X	X	
CJ02	Criminal Justice Technology	X	X	
CUL4	Culinary Arts	X		
CIB4	Database Specialist	X		
DA02	Dental Assisting	X		
QP04	Diesel Equipment Technology		X	Butts
DR02	Drafting Technology	X		
0002	Early Childhood Care and Education	X	X	
W002	Electrical Construction and Maintenance	X		
EFA4	Electronics Technology	X	X	
EH02	Environmental Horticulture	X		
FOR2	Forensic Science Technology	X		
IEA2	Industrial Electrical Technology	X		
ICS4	Industrial Systems Technology	X		
IWA2	Internet Specialist- Web Applications & Services Development	X		
CIW4	Internet Specialist-Web Site Design	X		
MT02	Machine Tool Technology	X		
MA02	Medical Assisting	X	X	
CIN4	Networking Specialist	X		
ORT2	Orthopaedic Technology	X		
PS02	Paralegal Studies	X		
EM02	Paramedic Technology	X		
PH02	Pharmacy Technology	X		
PL02	Plumbing		X	
PN04	Practical Nursing	X	X	
PG02	Printing and Graphics Technology	X		
ST02	Surgical Technology	X		
WJ02	Welding and Joining Technology	X	X	

## Technical Certificate of Credit Programs

<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
	<b><u>Accounting</u></b>			
BFN1	Banking and Finance	X	X	
5AQ1	Computerized Accounting Specialist	X	X	
5AY1	Office Accounting Specialist	X	X	
5AP1	Payroll Accounting Specialist	X	X	
5AR1	Tax Preparation Specialist	X	X	
	<b><u>Air Conditioning Technology</u></b>			
AX01	Air Conditioning Technician Assistant	X	X	
ADL1	Light Commercial Air Conditioning Specialization	X	X	
GMA1	General Maintenance Mechanic	X	X	
HAC1	Heating and Air Conditioning Installation Technician	X	X	
	<b><u>Automotive Collision</u></b>			
5DX1	Painting and Refinishing Specialist	X		
	<b><u>Automotive Technology</u></b>			
5CT1	Automotive Automatic Transmission & Transaxle Technician	X	X	
5CU1	Automotive Brake Technician	X	X	Jasper
5AS1	Automotive Electrical/ Electronic Systems Technician	X	X	
AEG1	Automotive Engine Performance Technician	X	X	
5CS1	Automotive Engine Repair Technician	X	X	
5AM1	Automotive Heating and Air Conditioning Technician	X	X	Jasper
ADT1	Automotive Manual Drive Train and Axle Repair Tech	X	X	
5CV1	Automotive Suspension and Steering Technician	X	X	Jasper
5CQ1	Basic Automotive Service Technician	X	X	Jasper
LSB1	Lawn Equipment/Small Engine Repair			Jasper
	<b><u>Barbering</u></b>			
BBC1	Barbering for Cosmetologists		X	
	<b><u>Business Related</u></b>			
5DC1	Administrative Support Assistant	X	X	
5DD1	Data Entry Clerk	X	X	
DPG1	Digital Photographer	X		
EM21	Entrepreneur Management	X	X	
5BZ1	Human Resource Management Specialist	X	X	

<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
5AL1	Management and Leadership Specialist	X	X	Henry
5D01	Medical Billing Clerk	X		
MC01	Medical Coding Specialist	X		
MD21	Medical Data Clerk	X	X	
5DF1	Medical Language Specialist	X		
5CG1	Microsoft Office Application Professional	X	X	Taylor
5CB1	Operations Management Specialist	X	X	
SST1	Service Sector Management Specialist	X	X	
SBC1	Small Business Management Specialist	X	X	Henry
SS11	Supervisory Specialist	X	X	Henry
5DQ1	Technical Communications	X	X	
<b><u>Carpentry</u></b>				
KB01	Cabinet Making Assistant	X		
CR01	Framing Carpenter	X		
<b><u>Computer Information Systems</u></b>				
5AT1	Comp TIA A+ Certified Technician Preparation	X		
CCN1	CISCO CCNP Specialist	X		
5BG1	CISCO Network Specialist	X		
5C01	Internet Specialist Web Site Designer	X		
5CP1	Internet Specialist Web Site Developer	X		
5CM1	Microsoft Networking Service Technician	X		
IVD1	Video Production Assistant	X		
<b><u>Commercial Truck Driving</u></b>				
STP1	Commercial Straight Truck and Passenger Driving (Class B)	X	X	
TU01	Commercial Truck Driving	X	X	Jasper
<b><u>Cosmetology</u></b>				
CES1	Cosmetic Esthetician		X	
NAP1	Nail Technician		X	Butts
<b><u>Criminal Justice/ Forensic Science</u></b>				
CJS1	Criminal Justice Specialist	X	X	Taylor
LWS1	Law Enforcement Specialist	X	X	

<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
	<b><u>Drafting</u></b>			
ADA1	Advanced Architectural Drafting Specialist	X		
CAS1	Computer Aided Drafting Specialist	X		
	<b><u>Early Childhood Care &amp; Education</u></b>			
CDA1	Child Development Associate I	X	X	
CDE1	Child Development Specialist	X	X	
EC11	Early Childhood Care & Education Basics	X	X	
OG01	Early Childhood Program Administration	X	X	
FCP1	Family Child Care Provider	X	X	
ITC1	Infant and Toddler Child Care Specialist	X	X	
SYF1	School-Age and Youth Care	X	X	
	<b><u>Electrical Construction &amp; Maintenance</u></b>			
ALB1	Apprentice Lineworker- Basic		X	
LL01	Electrical Technician	X		
IEC1	Industrial Electrical Controls	X		
	<b><u>Environmental Horticulture</u></b>			
FLR1	Floral Assistant	X		
5AK1	Garden Center Technician	X		
5AE1	Landscape Specialist	X		
	<b><u>Fire Science Technology</u></b>			
FFI1	Fire Fighter I	X		
	<b><u>Industrial Systems Technology</u></b>			
ISB1	Industrial Electrician	X		
MTC1	Industrial Motor Control Technician	X		
IFP1	Industrial Fluid Power Technician	X		
IPC1	Programmable Control Technician I	X		
	<b><u>Machine Tool Technology</u></b>			
GMA1	Advanced General Machinist	X		
5DL1	CNC Setup and Programmer	X		
CNC1	CNC Specialist	X		
5AJ1	Lathe Operator	X		
5AH1	Mill Operator	X		



<u>Major Code</u>	<u>Major</u>	<u>Griffin</u>	<u>Flint</u>	<u>Center</u>
<b><u>Medical Services</u></b>				
SSB1	Central Sterile Processing Technician	X		
NSP1	Certified Nursing Assistant	X	X	
DSP1	Direct Support Professional	X	X	
EZP1	Electrocardiography Technician	X		
5CJ1	Health Care Assistant	X	X	
HHS1	Health Care Science	X		
HED1	Hemodialysis Patient Care Specialist	X		
TTP1	Patient Care Technician		X	
PYP1	Phlebotomy Technician	X		
PSN1	Polysomnography Technician	X		
<b><u>Paramedic Technology</u></b>				
EMB1	Emergency Medical Technician- Basic	X		
EM01	Emergency Medical Technician- Intermediate	X		
<b><u>Plumbing</u></b>				
5DM1	Residential Plumber		X	
<b><u>Printing and Graphics</u></b>				
BPD1	Basic Publications Designer	X		
<b><u>Welding and Joining</u></b>				
BWE1	Basic Welding	X	X	
5BR1	Flat Shielded Metal Arc Welder	X	X	Jasper
5BW1	Gas Metal Arc Welder Fabricator	X	X	Jasper
5BT1	Gas Tungsten Arc Welder	X	X	Jasper
WL01	SMAW Pipe Welding		X	
5BS1	Vertical Shielded Metal Arc Welder Fabricator	X	X	
<b><u>Community Service Certificates</u></b>				
CSA1	Certified Customer Service Specialist	X	X	Taylor
TG01	Certified Manufacturing Specialist	X	X	
WAD1	Certified Warehousing & Distribution Specialist	X		

## **DEGREES, DIPLOMAS, AND TECHNICAL CERTIFICATES OF CREDIT (TCC'S)**

Unless otherwise indicated, all degree, diploma, and technical certificate programs require applicants to meet general admission requirements and must also:

1. Present official documentation of an earned high school diploma, GED, or college degree.
2. Present acceptable ASSET, COMPASS, SAT, or ACT scores taken within the last five years or transfer of program level English and math from a regionally accredited college or a post-secondary institution with a grade of C or better.

Southern Crescent Technical College strives to provide the most up-to-date curriculum that will meet the needs of graduates that enter the workforce. To accomplish this mission, curriculum changes are needed on occasion. Please refer to the latest catalog/handbook addendum for an update on all curriculum changes.

All diploma and degree programs and some certificate programs require both general core and technical core classes. Please note that general core classes may be added or deleted due to the availability of properly credentialed instructors in these subject areas. Southern Crescent Technical College will offer the minimum required general core classes, so students will be able to complete a program of study in a timely manner. In addition, the College will offer as many general core choices and options as instructor availability allows.

### **Program Length**

The estimated length for most Associate of Applied Science (AAS) degree programs is approximately two years, or eight quarters.

The estimated length for most Diploma programs is approximately eighteen months, or six quarters in length.

**\*Note:** Estimated program length reflects full-time enrollment and does not include learning support classes or delays due to course offerings, waiting lists, cohorts, or competitive admissions, etc.

## Accounting AC02

### The Diploma Program

The Accounting diploma program is a sequence of courses designed to prepare students for careers in the accounting profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of accounting theory and practical application necessary for successful employment using both manual and computerized accounting systems. Program graduates receive an Accounting diploma.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment supplies .....\$200

### Related Programs of Study:

- Accounting Degree
- Banking and Finance Certificate
- Computerized Accounting Specialist Certificate
- Tax Preparation Specialist Certificate
- Office Accounting Specialist Certificate
- Payroll Accounting Specialist Certificate

### Curriculum

Minimum credits required for graduation: **71**

#### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1011	Business Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

#### Occupational Core **50**

SCT	100	Introduction to Microcomputers	3
ACC	1101	Principles of Accounting I	6
ACC	1102	Principles of Accounting II	6
ACC	1103	Principles of Accounting III	6
ACC	1104	Computerized Accounting	3
ACC	1106	Spreadsheet Applications	3
ACC	1151	Individual Tax Accounting	5
ACC	1152	Payroll Accounting	5
BUS	1130	Document Processing	*6
XXX	xxx	Occupational Electives	*10

\* Courses must begin with ACC xxx, BUS xxx, CIS xxx, MKT xxx, or MSD xxx.

**\*Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.**

## Accounting AC03

### The Associate Degree Program

The Accounting associate degree program is a sequence of courses that prepares students for careers in the accounting profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. Areas covered in this program include maintaining a set of books for business entities, account classifications, subsidiary record accounting, corporate accounting, cost accounting, payroll, computerized accounting, spreadsheet and database fundamentals, tax preparation, and word processing. The program emphasizes a combination of accounting theory and practical application necessary for successful employment using both manual and computerized accounting systems. Program graduates receive an Accounting Associate of Applied Science Degree.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment supplies.....\$200

### Related Programs of Study:

- Accounting Diploma
- Banking and Finance Certificate
- Computerized Accounting Specialist Certificate
- Tax Preparation Specialist Certificate
- Office Accounting Specialist Certificate
- Payroll Accounting Specialist Certificate

## Curriculum

Minimum credits required for graduation: **98**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
XXX	xxxx	General Core Elective	5

### Occupational Core **65**

ACC	1101	Principles of Accounting I	6
ACC	1102	Principles of Accounting II	6
ACC	1103	Principles of Accounting III	6
ACC	1104	Computerized Accounting	3
ACC	1106	Spreadsheet Applications	3
ACC	1151	Individual Tax Accounting	5
ACC	1152	Payroll Accounting	5
BUS	1130	Document Processing	**6
SCT	100	Introduction to Microcomputers	3
ACC	xxx	Accounting Electives	10
XXX	xxx	Occupational Electives	*15

\* Courses must begin with ACC xxxx, BUS xxxx, CIS xxxx, MKT xxxx, or MSD xxxx.

**\*Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.**

# Air Conditioning Technology AI02

## The Diploma Program

This program is a sequence of courses that prepares students for careers in the air conditioning profession. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment as entry level residential air conditioning technicians.

Competencies achieved in refrigeration, electricity, air conditioning, and heating meet accepted industry standards.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools ..... \$500
- Equipment/supplies ..... \$300

Other required out-services:

- EPA 608 exam ..... \$35

### Related Programs of Study:

- Air Conditioning Technology Degree
- Air Conditioning Technicians Assistant Certificate
- Heating and Air Conditioning Installation Technician Certificate
- Advanced Air Conditioning Technology--Light Commercial Air Conditioning Specialization Certificate
- General Maintenance Mechanic Certificate

## Curriculum

Minimum credits required for graduation: **85**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **72**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
ACT	100	Refrigeration Fundamentals	4
ACT	101	Principles & Practices of Refrigeration	7
ACT	102	Refrigeration Systems Components	7
ACT	103	Electrical Fundamentals	7
ACT	104	Electric Motors	4
ACT	105	Electrical Components	5
ACT	106	Electric Control Systems & Installation	4
ACT	107	Air Conditioning Principles	8
ACT	108	Air Conditioning Systems & Installation	3
ACT	109	Troubleshooting A/C Systems	7
ACT	110	Gas Heating Systems	5
ACT	111	Heat Pumps & Related Systems	6

# Air Conditioning Technology AI03

## The Associate Degree Program

The Air Conditioning Technology associate degree program is a sequence of courses designed to prepare students for careers in the air conditioning industry. Learning opportunities develop academic, occupational, and professional knowledge and skill required for job acquisition, retention, and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment. Program graduates have the qualifications to be an entry level air conditioning technician.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools ..... \$500
- Equipment/supplies ..... \$300

Other required out-services:

- EPA 608 exam ..... \$35

### Related Programs of Study:

- Air Conditioning Technology Diploma
- Air Conditioning Technician Assistant Certificate
- Heating and Air Conditioning Installation Technician Certificate
- Advanced Air Conditioning Technology --Light Commercial Air Conditioning Specialization Certificate
- General Maintenance Mechanic Certificate

## Curriculum

Minimum credits required for graduation: **110**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology <b>OR</b>	5
ECO	1101	Principles of Economics <b>OR</b>	(5)
SOC	1101	Introduction to Sociology	(5)
MAT	1111	College Algebra	5
MAT	1113	Pre-Calculus <b>OR</b>	5
PHY	1110	Introductory Physics	(5)

### Occupational Core **80**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
ACT	100	Refrigeration Fundamentals	4
ACT	101	Principles/Practices of Refrigeration	7
ACT	102	Refrigeration Systems Components	7
ACT	103	Electrical Fundamentals	7
ACT	104	Electrical Motors	4
ACT	105	Electrical Components	5
ACT	106	Electric Control Systems/Installation	4
ACT	107	Air Conditioning Principles	8
ACT	108	Air Conditioning Systems Installation	3
ACT	109	Troubleshooting Air Conditioning Systems	7
ACT	110	Gas Heating Systems	5
ACT	111	Heat Pumps and Related System	6
XXX	xxx	Occupational Electives	*8

**\*Choose 8 credit hours from the following courses.**

ACT	200	Design and Application of Light Commercial Air Conditioning	4
ACT	201	Light Commercial Air Conditioning Control Systems	4
ACT	202	Light Commercial Air Conditioning Systems Operation	8
ACT	204	Residential Systems Design	8
ACT	205	Georgia State and Local Residential Air Conditioning Codes	4
ACT	206	Air Distribution Systems for Residential Air Conditioning	4
ACT	208	Commercial Refrigeration Design	4
ACT	209	Commercial Refrigeration Application	8
ACT	210	Trouble Shooting and Servicing Commercial Refrigeration	4

# Automotive Collision Repair AU02

## Griffin Campus

### The Diploma Program

The Automotive Collision Repair diploma program provides educational opportunities for students to obtain knowledge, skills, and attitudes necessary to succeed in the field of automotive collision repair. In addition, the program provides educational opportunities that will enable graduates to gain full employment in the rapidly growing field of auto body repair. The program emphasizes either major automotive collision repair or automotive painting and refinishing. Employment may be obtained in automotive dealerships or privately owned auto body shops.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$1250
- Equipment/supplies.....\$100 and up

### Related Programs of Study:

- Painting and Refinishing Specialist Certificate

**NOTE:** Beginning Auto Collision Repair classes are offered spring and summer quarters.

## Curriculum

Minimum credits required for graduation: **67**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **26**

SCT	100	Introduction to Microcomputers	3
ACR	1000	Safety	1
ACR	1010	Auto Components Identification	3
ACR	1020	Equipment and Hand Tools ID	1
ACR	1040	Mechanical and Electrical Systems	2
ACR	1050	Body Fiberglass, Plastic and Rubber Repair Techniques	3
ACR	1060	Welding and Cutting	6
ACR	1070	Trim, Accessories, and Glass	2
ACR	1090	Damage ID and Assessment	3
ACR	1100	Minor Collision Repair	2

### Specialization

Completion of the following specialization is required for graduation.

### Painting and Refinishing **28**

ACR	1300	Sanding, Priming, and Paint Preparation	5
ACR	1320	Special Refinishing Application	5
ACR	2340	Urethane Enamels Refinishing Application	5
ACR	2350	Tint and Match Colors	5
ACR	2360	Detailing	2
ACR	2370	Paint and Refinishing Internship	3
XXX	xxx	Electives	3

# Automotive Technology UTA4

## The Diploma Program

This program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment. Program graduates receive an Automotive Technology diploma that qualifies them as automotive technicians.

## Diploma Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Present documentation of valid driver's license.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$350 and up
- Equipment/supplies.....\$70 and up

Other required out-services:

- EPA certification in mobile air conditioning servicing.....\$20  
(Must be achieved before students complete AUT 142, Climate Control)

## Related Programs of Study:

- Automotive Technology Degree
- Automotive Automatic Transmission and Transaxle Technical Certificate
- Automotive Brake Technician Certificate
- Automotive Electrical/Electronic Systems Technician Certificate
- Automotive Engine Performance Certificate
- Automotive Engine Repair Technician Certificate
- Automotive Heating and Air Conditioning Technician Certificate
- Automotive Manual Drive Train and Axle Repair Tech Certificate
- Automotive Suspension and Steering Technician Certificate
- Basic Automotive Service Technician Certificate

## Curriculum

Minimum credits required for graduation: **103**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev	3

### Occupational Core **90**

SCT	100	Intro to Microcomputers	3
AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting, and Charging	4
AUT	126	Engine Principles of Operation & Repair	6
AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	130	Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4
AUT	140	Electronic Engine Control Systems	7
AUT	142	Climate Control Systems	6
AUT	144	Introduction to Automotive Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Advanced Electronic Transmission Diagnosis	3
AUT	214	Advanced Electronic Controlled Brake System Diagnosis	4
AUT	216	Advanced Electronic Controlled Suspension and Steering Systems	4
AUT	218	Advanced Electronic Engine Control Systems	4
AUT	220	Automotive Technology Internship <b>OR</b>	6
XXX	xxx	Specific Occupational-Guided Elective	(6)



# Automotive Technology UTA3

## The Associate Degree Program

This program is a sequence of courses that prepares the student for careers in the automotive service and repair profession. The program emphasizes a combination of automotive theory and practical application necessary for successful employment.

The program is a technically advanced program that provides the student with the knowledge and skills for progression to certified technician in the modern automotive industry. Training in advanced electronics applications plays a vital role in the comprehensive automotive program. The program is certified by National Automotive Technicians Education Foundation/ASE and prepares the student for ASE Certification.

## Associate Degree Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Present documentation of valid driver's license.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools .....\$350 and up
- Equipment/supplies .....\$70 and up

Other required out-services:

- EPA certification in mobile air conditioning servicing .....\$20  
(Must be achieved before students complete AUT 142, Climate Control)

## Related Programs of Study:

- Automotive Technology Diploma
- Automotive Automatic Transmission and Transaxle Technical Certificate
- Automotive Brake Technician Certificate
- Automotive Electrical/Electronic Systems Technician Certificate
- Automotive Engine Performance Certificate
- Automotive Engine Repair Technician Certificate
- Automotive Heating and Air Conditioning Technician Certificate
- Automotive Manual Drive Train and Axle Repair Tech Certificate
- Automotive Suspension and Steering Technician Certificate
- Basic Automotive Service Technician Certificate

## Curriculum

Minimum credits required for graduation: **120**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology <b>OR</b>	5
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra	5
PHY	1110	Introductory Physics	5

### Occupational Core **90**

SCT	100	Intro to Microcomputers	3
AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting, and Charging	4
AUT	126	Engine Principles of Operation & Repair	6
AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	130	Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4
AUT	140	Electronic Engine Control Systems	7
AUT	142	Climate Control Systems	6
AUT	144	Introduction to Automotive Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Advanced Electronic Transmission Diagnosis	3
AUT	214	Advanced Electronic Controlled Brake System Diagnosis	4
AUT	216	Advanced Electronic Controlled Suspension and Steering Systems	4
AUT	218	Advanced Electronic Engine Control Systems	4
AUT	220	Automotive Technology Internship <b>OR</b>	6
XXX	xxx	Specific Occupational-Guided Elective	(6)

# Barbering BA02

## Flint River Campus

### The Diploma Program

The Barbering program is a sequence of courses that prepares students for careers in the field of barbering. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in safety, sanitation, hair treatments and manipulations, haircutting techniques, shaving, skin care, reception, sales, and management. The curriculum meets state licensing requirements of the Georgia State Board of Barbering. The program graduate receives a Barbering diploma and is employable as a barber, salon/shop manager, or a salon/shop owner.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$490
- Equipment/supplies.....\$50
- Uniforms.....\$90

Other required out-services:

- State of GA Endorsement Application.....\$30
- Georgia Barber Application.....\$147

Related Programs of Study:

- Cosmetology
- Barbering for Cosmetologists Certificate

## Curriculum

Minimum credits required for graduation: **81**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1011	Business Math	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **68**

SCT	100	Introduction to Microcomputers	3
BAR	100	Introduction to Barber/Styling	3
BAR	101	Introduction to Barber/Styling Implements	2
BAR	102	Science: Sterilization, Sanitation, & Bacteriology	3
BAR	103	Introduction to Haircutting	7
BAR	104	Shampooing	2
BAR	105	Haircutting/Introduction to Styling	4
BAR	106	Shaving	3
BAR	107	Science: Anatomy and Physiology	5
BAR	108	Color Theory	4
BAR	109	Chemical Restructuring of Hair I	2
BAR	110	Haircutting/Styling	5
BAR	112	Chemical Restructuring of Hair II	7
BAR	113	Structure of Skin, Scalp, and Hair	2
BAR	114	Skin, Scalp, Hair, and Facial Treatments	3
BAR	116	Advanced Haircutting/Styling	4
BAR	118	Color Applications	2
BAR	120	Barber/Styling Practicum	3
BAR	121	Shop Management/Ownership	4

## Business Administrative Technology BAT2

### The Diploma Program

The Business Administrative Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the areas of business administration and business technology.

### Related Programs of Study:

- Business Administrative Technology Degree
- Administrative Support Assistant Certificate
- Data Entry Clerk Certificate
- Medical Billing Clerk Certificate
- Medical Language Specialist Certificate
- Microsoft Office Applications Professional Certificate
- Technical Communications Certificate

### Curriculum

Minimum credits required for graduation: **74**

#### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1011	Business Mathematics OR	5
MAT	1012	Foundations of Mathematics	(5)
EMP	1000	Interpersonal Relations & Prof. Dev.	3

#### Occupational Core **56**

SCT	100	Introduction to Microcomputers	3
*BUS	1130	Document Processing	6
BUS	1140	Word Processing	5
BUS	1120	Business Document Proofreading and Editing	3
ACC	1101	Principles of Accounting I	6
BUS	1240	Office Procedures	5
BUS	2150	Presentation Applications	3
BUS	2120	Spreadsheet Applications	3
BUS	1170	Electronic Communication Applications	5
BUS	2210	Applied Office Procedures	5
XXX	xxx	Specific Occupational-Guided Elective(s)	12

**\*Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.**

## Business Administrative Technology BAT3

### The Associate Degree Program

The Business Administrative Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Administrative Technology program provides learning opportunities, which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program emphasizes the use of word processing, spreadsheet, presentation, and database applications software. Students are also introduced to accounting fundamentals, electronic communications, Internet research, and electronic file management. The program includes instruction in effective communication skills and technology innovations for the office. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of administrative technology.

#### Related Programs of Study:

- Business Administrative Technology Diploma
- Administrative Support Assistant Certificate
- Data Entry Clerk Certificate
- Medical Billing Clerk Certificate
- Medical Language Specialist Certificate
- Microsoft Office Applications Professional Certificate
- Technical Communications Certificate

### Curriculum

Minimum credits required for graduation: **95**

#### General Core **25**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introductory Psychology	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning	(5)

#### Occupational Core **70**

SCT	100	Introduction to Microcomputers	3
ACC	1101	Principles of Accounting I	6
ACC	1102	Principles of Accounting II	6
*BUS	1130	Document Processing	6
BUS	1150	Database Applications	3
BUS	1240	Office Procedures	5
BUS	1140	Word Processing	5
BUS	2210	Applied Office Procedures	5
BUS	1170	Electronic Communication Applications	5
BUS	2110	Advanced Word Processing	5
BUS	2120	Spreadsheet Applications	3
BUS	2150	Presentation Applications	3
BUS	1120	Business Document Proofreading and Editing	3
XXX	xxx	Specific Occupational-Guided Elective	12

**\* Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.**

# Business Management BMA2

## The Diploma Program

This program is a sequence of courses that prepares students for careers in the field of supervisory management. The program emphasizes a combination of theory and practical application necessary for successful employment as managers and supervisors. The program curriculum includes training in the areas of economics, management principles, accounting, personnel administration, laws pertaining to labor and supervision, employee relations, counseling and disciplinary actions, training and employee performance evaluation, and leadership and decision making.

### Related Programs of Study:

- Business Management Degree
- Human Resource Management Specialist Certificate
- Management/Leadership Specialist Certificate
- Service Sector Management Specialist Certificate
- Small Business Management Specialist Certificate

## Curriculum

Minimum credits required for graduation: **90**

### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1011	Business Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **71-72**

SCT	100	Introduction to Microcomputers	3
ACC	1101	Principles of Accounting <b>OR</b>	6
MSD	109	Managerial Accounting and Finance	(5)
MSD	100	Principles of Management	5
MSD	101	Organizational Behavior	5
MSD	102	Employment Law	5
MSD	103	Leadership	5
MSD	104	Human Resource Management	5
MSD	106	Performance Management	5
MSD	112	Introduction to Business & Economics	5
MSD	113	Business Ethics	5
MSD	114	Organizational Communications and Information Technology	5
MSD	210	Team Project	5
MSD	220	Management & Supervision Occupation Based	3
XXX	xxx	Occupationally-related elective(s)	10

# Business Management BMA3

## The Associate Degree Program

This program is a sequence of courses that prepares students for careers in the field of supervisory management. The program emphasizes a combination of theory and practical application necessary for successful employment as managers and supervisors. The program curriculum includes training in the areas of economics, management principles, accounting, personnel administration, laws pertaining to labor and supervision, employee relations, counseling and disciplinary actions, training and employee performance evaluation, and leadership and decision making.

### Related Programs of Study:

- Business Management Diploma
- Human Resource Management Specialist Certificate
- Management/Leadership Specialist Certificate
- Service Sector Management Specialist Certificate
- Small Business Management Specialist Certificate

## Curriculum

Minimum credits required for graduation: **107**

### General Core **30-31**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
ECO	1101	Principles of Economics	5
PSY	1101	Introductory Psychology	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning <b>OR</b>	(6)
MAT	1101	Mathematical Modeling	(5)

### Occupational Core **57**

SCT	100	Introduction to Microcomputers	3
ACC	1101	Principles of Accounting I <b>OR</b>	6
MSD	109	Managerial Accounting and Finance	(5)
MSD	100	Principles of Management	5
MSD	101	Organizational Behavior	5
MSD	102	Employment Law	5
MSD	103	Leadership	5
MSD	104	Human Resource Management	5
MSD	106	Performance Management	5
MSD	113	Business Ethics	5
MSD	114	Organizational Communication and Information Technology	5
MSD	210	Team Project	5
MSD	220	Management & Supervision Occupation Based	3

### Specializations

Completion of one of the following specializations is required for graduation.

### Human Resource Management **20**

MSD	105	Labor Management	5
MSD	107	Employee Training & Development	5
MSD	205	Service Sector Management	5
MSD	202	Production/Operations Management	5

### Service Sector Management **20**

MSD	107	Employee Training & Development	5
MSD	115	Retail Management	5
MSD	205	Service Sector Management	5
XXX	xxx	Elective	5

### Small Business Management **20**

MSD	115	Retail Management	5
MSD	116	Business Plan Development	5
MSD	117	Small Business Management	5
XXX	xxx	Elective	5

### General Management **20**

MSD	xxx	Electives	15
XXX	xxx	General Electives	5

### Operation Management **20**

MSD	107	Employee Training and Development	5
MSD	202	Production/Operation Management	5
MSD	206	Project Management	5
XXX	xxx	Occupationally Related Elective	5

# Carpentry CR02

## Griffin Campus

### The Diploma Program

This program is a sequence of courses that prepares students for careers in the carpentry profession. The program emphasizes a combination of carpentry theory and practical application necessary for successful employment as an entry level residential carpenter.

Competencies gained in the curriculum include the use of hand and power tools, blueprint reading, site layout, footing and foundation construction, floor and wall framing, ceiling and roof framing, insulation, interior wall and ceiling coverings, interior trim, exterior finishes and exterior trim.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$100

### Related Programs of Study:

- Construction Management Diploma
- Cabinet Making Assistant Certificate
- Framing Carpenter Certificate

## Curriculum

Minimum credits required for graduation: **73**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **49**

SCT	100	Introduction to Microcomputers	3
CFC	100	Safety	1
CFC	101	Introduction to Construction	2
CAR	101	Safe Use of Hand and Power Tools	3
CAR	103	Materials	3
CAR	105	Print Reading	5
CAR	107	Site Layout, Footings, and Foundations	5
CAR	110	Floor Framing	3
CAR	111	Wall Framing	3
CAR	112	Ceiling & Roof Framing	6
CAR	114	Roof Coverings	2
CAR	115	Exterior Finishes and Trim	5
CAR	117	Interior Finishes I	4
CAR	118	Interior Finishes II	4

### Specializations

Completion of one of the following specializations is required for graduation.

### Residential Carpentry **11**

CAR	119	Interior Finishes III	3
CAR	121	Cornice and Soffit	1
CAR	126	Stairs	3
CAR	127	Residential Carpentry Internship/ Practicum <b>OR</b>	4
XXX	xxx	Electives	(4)

### Commercial Carpentry **11**

CAR	130	Doors & Door Hardware	2
CAR	131	Concrete Forming	3
CAR	132	Site Development	1
CAR	134	Commercial Carpentry Internship <b>OR</b>	4
XXX	xxx	Electives	(4)
CAR	135	Steel Rigging and Reinforcing	1

# Computer Programming CIP4

## Griffin Campus

### The Diploma Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates are qualified for employment as computer programming specialists, website designers, or networking specialists.

### Related Programs of Study:

- Computer Programming Specialist Degree
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- Networking Specialist Degree
- Networking Specialist Diploma

## Curriculum

Minimum credits required for graduation: **90**

### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1013	Algebraic Concepts <b>OR</b>	5
MAT	1011	Business Mathematics	(5)
EMP	1000	Interpersonal Relations & Prof. Dev	3

### Occupational Core **72**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	112	Systems Analysis & Design	6
CIS	214	Database Management	6
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN and WAN	(6)
CIS	xxx	Programming Languages	*35

**\* Choose 35 credit hours from the following courses.**

**\* 14 credit hours must be in the same language.**

CIS	1121	Visual Basic.Net I	7
CIS	1122	Visual Basic.Net II	7
CIS	2161	Structured Query Language (SQL)	7
CIS	255	Introduction to "C" Programming	7
CIS	256	Advanced "C" Programming	7
CIS	282	Introduction to C++ Programming	7
CIS	149	Advanced C++ Programming	7
CIS	252	Introduction to JAVA Programming	7
CIS	2421	Intermediate JAVA Programming	7
CIS	2511	Beginning Python Programming	7



# Computer Programming CIP3

## Griffin Campus

### The Associate Degree Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates are qualified for employment as computer programming specialists, website designers, or networking specialists.

#### Related Programs of Study:

- Computer Programming Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- Networking Specialist Degree
- Networking Specialist Diploma

## Curriculum

Minimum credits required for graduation: **110**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
SOC	1101	Introduction to Sociology <b>OR</b>	(5)
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
XXX	xxx	General Core Elective	5

### Occupational Core **80**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	112	Systems Analysis & Design	6
CIS	214	Database Management	6
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN and WAN	(6)
ACC	1101	Principles of Accounting I	6
CIS	xxx	Occupational Related Elective	2
CIS	xxx	Programming Languages	*35

\* Choose 35 credit hours from the following courses.

\* 14 credit hours must be in the same language.

CIS	1121	Visual Basic. Net I	7
CIS	1122	Visual Basic. Net II	7
CIS	2161	Structured Query Language (SQL)	7
CIS	255	Introduction to "C" Programming	7
CIS	256	Advanced "C" Programming	7
CIS	282	Introduction to C++ Programming	7
CIS	149	Advanced C++ Programming	7
CIS	252	Introduction to JAVA Programming	7
CIS	2421	Intermediate JAVA Programming	7
CIS	2511	Beginning Python Programming	7

# Construction Management CMN2

## Griffin Campus

### The Diploma Program

The Construction Management diploma program is a sequence of courses designed for the student who wishes to prepare for a career in some aspect of construction supervision. This diploma builds upon the diploma program in carpentry by providing background skills in several areas of construction. Supervision courses, computer-aided drafting, project management, and accounting for construction businesses provide a core of management and supervisory courses.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$100

### Related Programs of Study:

- Carpentry Diploma
- Cabinetmaking Basics Certificate
- Framing Carpenter Certificate

## Curriculum

Minimum credits required for graduation: **83**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1013	Algebraic Concepts	5
EMP	1000	Interpersonal Relations & Prof. Dev	3

### Occupational Core **70**

SCT	100	Introduction to Microcomputers	3
ACC	1101	Principles of Accounting	6
CAR	101	Safe Use of Tools	3
CAR	103	Materials	3
CAR	105	Print Reading	5
CAR	107	Site Layout, Footings, and Foundations	5
CAR	110	Floor Framing	3
CAR	111	Wall Framing	3
CAR	112	Ceiling and Roof Framing	6
CAR	115	Exterior Finishes and Trim	5
CAR	117	Interior Finishes I	4
CAR	130	Doors and Door Hardware	2
CMT	204	Construction Scheduling	2
CMT	205	Inspection Practices	4
CMT	211	Computerized Construction Estimating	3
CMT	217	Construction Contracting	5
DDF	107	Introduction to CAD	6
XXX	xxx	Occupationally Related Electives	2

# Cosmetology CS02

## The Diploma Program

This program is a sequence of courses that prepares students for careers in the Cosmetology profession. Major emphasis is placed on the safety, sanitation, and latest techniques of styling, cutting, chemical relaxing, permanent waving, and coloring. In addition, instruction focuses on the basics of hair treatment identification and treatment of various skin and scalp conditions.

Students are provided extensive experience in the College's beauty salon which is designed and equipped similarly to commercial salons. Practical work is begun using mannequins with students progressing to provide a complete range of beauty services on live models.

Successful completion of this program qualifies the student to take the Georgia State Cosmetology Board Examination.

## Diploma Admission Requirements

Applicants must meet general admissions requirements and also:

1. Upon successful completion (or transfer in) of ENG 1010, MAT 1012, EMP 1000, and SCT 100 with a minimum grade point average of 2.0, the student will be eligible to register for courses with the COS prefix.

It will be the responsibility of the student to notify the Cosmetology Program Advisor when all general core courses and SCT 100 have been completed. With this notification, the student will be placed on the Cosmetology COS prefix eligible list. Once students are placed on the COS prefix eligible list, they will be registered in COS prefix courses based upon general core course completion date. In the event two or more students have the same general core course and SCT 100 completion date, the date the student applied to the Cosmetology Program will be used to determine placement position for registration. The number of students allowed into classes with the COS prefix is limited. Classes will be filled by students from the COS prefix eligible list.

If a student changes his/her declared major from Cosmetology to a different major, and then back to Cosmetology, the latest Cosmetology application will be used to determine placement.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools ..... \$490
- Equipment/supplies ..... \$50
- Uniforms ..... \$90

Other required out-services:

- State Board Exam ..... \$119

## Related Programs of Study:

- Barbering Diploma
- Nail Technician Certificate
- Cosmetic Esthetician Certificate

## Curriculum

Minimum credits required for graduation: **82**

### General Core **13**

ENG 1010	Fundamentals of English I	5
MAT 1012	Foundations of Mathematics	5
EMP 1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **69**

SCT 100	Introduction to Microcomputers	3
COS 100	Intro to Cosmetology Theory	5
COS 101	Intro to Perm Waving/Relaxing	4
COS 103	Intro to Skin, Scalp & Hair	3
COS 105	Intro to Shampooing & Styling	4
COS 106	Intro to Haircutting	3
COS 107	Advanced Haircutting	2
COS 108	Permanent Waving & Relaxing	3
COS 109	Hair Color	6
COS 110	Skin, Scalp & Hair	3
COS 111	Styling	3
COS 112	Manicuring and Pedicuring	3
COS 113	Practicum I	5
COS 114	Practicum II	8
COS 115	Internship I	5
COS 116	Internship II	5
COS 117	Salon Management	4

# Criminal Justice Technology CJ02

## The Diploma Program

The Criminal Justice Technology diploma program is a sequence of courses that prepares students for Criminal Justice professions. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of Criminal Justice theory and practical application necessary for successful employment. Program graduates who are current practitioners will benefit through enhancement of career potential. Entry-level persons will be prepared to pursue diverse opportunities in the corrections, security, investigative, and police administration fields. Employment opportunities for graduates are law enforcement officer, corrections officer, security, investigative, and police administration fields.

### Related Programs of Study:

- Criminal Justice Technology Degree
- Forensic Science Degree
- Forensic Science Diploma
- Criminal Justice Specialist Certificate
- Law Enforcement Specialist Certificate

## Curriculum

Minimum credits required for graduation: **73**

### General Core **15**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
PSY	1010	Basic Psychology	5

### Occupational Core **58**

SCT	100	Introduction to Microcomputers	3
CRJ	101	Introduction to Criminal Justice	5
CRJ	103	Corrections	5
CRJ	104	Principles of Law Enforcement	5
CRJ	105	Introduction to Criminal Procedure	5
CRJ	168	Criminal Law	5
CRJ	202	Constitutional Law	5
CRJ	207	Juvenile Justice	5
CRJ	209	Criminal Justice Technology Practicum/Internship	5
CRJ	212	Ethics in Criminal Justice	5
XXX	xxx	Occupationally Related Electives	*10

**\* Choose 10 credit hours from the Criminal Justice or Forensic Science curriculum.**

# Criminal Justice Technology CJ03

## The Associate Degree Program

The Criminal Justice Technology associate degree program is a sequence of courses that prepares students for Criminal Justice professions. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of Criminal Justice theory and practical application necessary for successful employment. Program graduates who are current practitioners will benefit through enhancement of career potential. Entry-level persons will be prepared to pursue diverse opportunities in the law enforcement officers, corrections, security, investigative, and police administration fields. Employment opportunities for graduates are law enforcement officer, corrections officer, security, investigative, and police administration fields.

### Related Programs of Study:

- Criminal Justice Technology Diploma
- Forensic Science Degree
- Forensic Science Diploma
- Criminal Justice Specialist Certificate
- Law Enforcement Specialist Certificate

## Curriculum

Minimum credits required for graduation: **98**

### General Core **30-31**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology	5
ECO	1101	Principles of Economics	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning <b>OR</b>	(6)
MAT	1101	Mathematical Modeling	(5)

### Occupational Core **68**

SCT	100	Introduction to Microcomputers	3
CRJ	101	Introduction to Criminal Justice	5
CRJ	103	Corrections	5
CRJ	104	Principles of Law Enforcement	5
CRJ	105	Introduction to Criminal Procedure	5
CRJ	168	Criminal Law	5
CRJ	202	Constitutional Law	5
CRJ	207	Juvenile Justice	5
CRJ	209	Criminal Justice Technology Practicum/Internship	5
CRJ	212	Ethics in Criminal Justice	5
XXX	xxx	Occupationally Related Electives	*20

**\* Choose 20 credit hours from the Criminal Justice or Forensic Science curriculum.**

# Culinary Arts CUL4

## Griffin Campus

### The Diploma Program

The Culinary Arts diploma program will prepare students for employment in the culinary profession. The program emphasizes technical and theoretical knowledge combined with the practical applications of cooking, baking, serving, and management skills. Graduates who are current practitioners will benefit through enhancement of career potential. Entry-level persons will be prepared to pursue diverse opportunities in the culinary field as cooks, bakers, or caterers/culinary managers. The program also will help prepare students for the National Restaurant Association ServSafe Sanitation Certification.

### Diploma Admission Requirements

Applicants must meet general admissions requirements and must also:

1. Be at least 18 years of age.

### Related Programs of Study:

- Culinary Arts Degree

Approximate additional costs other than tuition, fees, and textbooks:

- Chef uniforms.....\$100
- Knife kits.....\$170

**NOTE:** Beginning culinary classes are offered spring and fall quarters.

## Curriculum

Minimum credits required for graduation: **92**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **79**

SCT	100	Introduction to Microcomputers	3
CUL	100	Professionalism in Culinary Arts	3
CUL	110	Safety, Sanitation & Equipment	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5
CUL	116	Food Service Purchasing and Control	3
CUL	121	Baking Principles I	5
CUL	122	Baking Principles II	5
CUL	127	Banquet Preparation and Presentation	4
CUL	129	Front of the House Services	3
CUL	130	Pantry, Hors D'Oeuvres and Canapes	5
CUL	132	Garde Manger	5
CUL	133	Food Service Leadership and Decision Making <b>OR</b>	5
MSD	103	Leadership and Decision Making	(5)
CUL	137	Nutritional Food & Menu Management	3
CUL	215	Contemporary Cuisine I	5
CUL	220	Contemporary Cuisine II	5
CUL	216	Practicum/Internship <b>OR</b>	11
CUL	124	Restaurant and Hotel Baking <b>AND</b>	(6)
CUL	224	International Cuisine	(6)

# Culinary Arts CUL3

## Griffin Campus

### The Associate Degree Program

The Culinary Arts degree program will prepare students for employment in the culinary profession. The program emphasizes technical and theoretical knowledge combined with the practical applications of cooking, baking, serving, and management skills. Graduates who are current practitioners will benefit through enhancement of career potential. Entry-level persons will be prepared to pursue diverse opportunities in the culinary field as cooks, bakers, or caterers/culinary managers. The program also will help prepare students for the National Restaurant Association ServSafe Sanitation Certification.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements and must also:

1. Be at least 18 years of age.

### Related Programs of Study:

- Culinary Arts Diploma

Approximate additional costs other than tuition, fees, and textbooks:

- Chef uniforms.....\$100
- Knife kits.....\$170

**NOTE:** Beginning culinary classes are offered spring and fall quarters.

## Curriculum

Minimum credits required for graduation: **109**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introductory Psychology <b>OR</b>	5
ECO	1100	Principles of Economics <b>OR</b>	(5)
SOC	1101	Introduction to Sociology	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning <b>OR</b>	(5)
MAT	1101	Mathematical Modeling	(5)
XXX	xxx	General Core Elective	5

### Occupational Core **79**

SCT	100	Introduction to Microcomputers	3
CUL	100	Professionalism in Culinary Arts	3
CUL	110	Safety, Sanitation & Equipment	3
CUL	112	Principles of Cooking	6
CUL	114	American Regional Cuisine	5
CUL	116	Food Service Purchasing and Control	3
CUL	121	Baking Principles I	5
CUL	122	Baking Principles II	5
CUL	127	Banquet Preparation and Presentation	4
CUL	129	Front of the House Service	3
CUL	130	Pantry, Hors D'Oeuvres and Canapes	5
CUL	132	Garde Manger	5
CUL	133	Food Service Leadership and Decision Making <b>OR</b>	5
MSD	103	Leadership and Decision Making	(5)
CUL	137	Nutritional Food & Menu Management	3
CUL	215	Contemporary Cuisine I	5
CUL	220	Contemporary Cuisine II	5
CUL	216	Practicum Internship <b>OR</b>	11
CUL	124	Restaurant and Hotel Baking <b>AND</b>	(6)
CUL	224	International Cuisine	(6)

# Database Specialist CIB4

## Griffin Campus

### The Diploma Program

The Computer Information Systems - Database Specialist diploma program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates are qualified for employment as database specialists.

#### Related Programs of Study:

- Database Specialist Degree
- Computer Programming Degree
- Computer Programming Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- Networking Specialist Degree
- Networking Specialist Diploma

### Curriculum

Minimum credits required for graduation: **90**

#### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1013	Algebraic Concepts <b>OR</b>	5
MAT	1011	Business Mathematics	(5)
EMP	1000	Interpersonal Relations & Prof. Dev.	3

#### Occupational Core **32**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN and WAN	(6)
CIS	xxx	Programming Language	7

#### SQL Server Database Administrator **40**

CIS	112	Systems Analysis & Design	6
CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2161	Structured Query Language (SQL)	7
CIS	2162	Administering Microsoft SQL Server	6
CIS	2163	Designing and Implementing Databases w/Microsoft SQL Server	6
CIS	xxx	Specific Occupational Guided Elective(s)	3



# Database Specialist CIB3

## Griffin Campus

### The Associate Degree Program

The Computer Information Systems - Database Specialist associate degree program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates are qualified for employment as database specialists.

#### Related Programs of Study:

- Database Specialist Diploma
- Computer Programming Degree
- Computer Programming Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- Networking Specialist Degree
- Networking Specialist Diploma

### Curriculum

Minimum credits required for graduation: **108**

#### General Core **30**

ENG 1101	Composition and Rhetoric	5
ENG 1102	Literature and Composition <b>OR</b>	5
HUM 1101	Introduction to Humanities	(5)
SPC 1101	Public Speaking <b>OR</b>	5
ENG 1105	Technical Communications	(5)
PSY 1101	Introduction to Psychology <b>OR</b>	5
SOC 1101	Introduction to Sociology <b>OR</b>	(5)
ECO 1101	Principles of Economics	(5)
MAT 1111	College Algebra <b>OR</b>	5
MAT 1101	Mathematical Modeling	(5)
XXX xxx	General Core Elective	5

#### Occupational Core **32**

SCT 100	Introduction to Microcomputers	3
CIS xxx	Operating Systems Course	6
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
CIS 1140	Networking Fundamentals <b>OR</b>	6
CIS 2321	Introduction to LAN and WAN	(6)
CIS xxx	Programming Language	7

#### SQL Server Database Administrator **46**

CIS 112	Systems Analysis & Design	6
CIS 2149	Implementing Microsoft Windows Professional	6
CIS 2150	Implementing Microsoft Windows Server	6
CIS 2161	Structured Query Language (SQL)	7
CIS 2162	Administering Microsoft SQL Server	6
CIS 2163	Designing and Implementing Databases w/Microsoft SQL Server	6
CIS xxx	Specific Occupational Guided Elective	9

# Dental Assisting DA02

## Griffin Campus

### The Diploma Program

The Dental Assisting diploma program is a sequence of courses designed to prepare students to assist dentists in dental operations. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Program graduates will be competent in the technical areas of preventive dentistry, four-handed dentistry; chair side assisting with emphasis in diagnostics operative, fixed prosthodontics, pediatric dentistry, orthodontic procedures, endodontic procedures, and surgical and expanded functions; dental practice management; specialties; and dental radiology.

### Diploma Admission Requirements

Applicants must meet general admissions requirements and must also:

1. Be at least 18 years of age.
2. Upon successful completion (or transfer in) of ENG 1010, MAT 1012, PSY 1010, SCT 100, AHS 104 with a minimum grade of "C" in each course and a grade point average (GPA) of 2.5 or higher, the student will be "program ready" and eligible for admission into the Dental Assisting Program. The student will be placed on a list in the order of their program ready date.
3. It is the student's responsibility to notify the Dental Assisting Advisor when all core courses have been completed.
4. If the student changes his/her declared major from Dental Assisting to a different diploma or degree program, and then back to Dental Assisting, the latest program application date will be used to determine placement.
5. The grading system for Dental assisting requires a minimum course grade of "C" for progress from specified courses to more advanced courses.

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms ..... \$110
- Equipment/supplies ..... varies
- Liability Insurance ..... \$4
- Medical/Dental ..... varies
- CPR ..... \$5
- Background check ..... varies
- Drug screen ..... varies

### Readmission Policy

If a student withdraws for any reason, the student may be allowed to re-enter the program the following year at the point

in which the student withdrew from the program. This courtesy is extended only once. Upon readmission into the Dental Assisting program, the student must complete additional requirements as deemed necessary by the program faculty.

Readmission will be based on available space within the classroom and clinical sites. For more information, please refer to the Dental Assisting Program Policy Manual.

### Background Check

A student who has been convicted of a felony or misdemeanor may be admitted to the Dental Assisting program; however, such a conviction may prohibit a student from attending certain clinical sites.

### Curriculum

Minimum credits required for graduation: **83**

#### General Core **15**

ENG 1010	Fundamentals of English I	5
MAT 1012	Foundations of Mathematics	5
PSY 1010	Basic Psychology	5

#### Occupational Core **68**

SCT 100	Introduction to Microcomputers	3
AHS 104	Introduction to Health Care	3
DEN 1010	Basic Human Biology	2
DEN 1020	Head and Neck Anatomy	2
DEN 1030	Preventive Dentistry	3
DEN 1050	Microbiology and Infection Control	3
DEN 1060	Oral Anatomy	5
DEN 1070	Oral Pathology and Therapeutics	3
DEN 1090	Dental Assisting National Board Examination Preparation	2
DEN 1340	Dental Assisting I	6
DEN 1350	Dental Assisting II	6
DEN 1360	Dental Assisting III	4
DEN 1370	Dental Assisting - Expanded Functions	4
DEN 1380	Scopes of Professional Practices	1
DEN 1390	Dental Radiology	5
DEN 1400	Dental Practice Management	4
DEN 1460	Dental Practicum I	2
DEN 1470	Dental Practicum II	2
DEN 1480	Dental Practicum III	8

**Note: Students enrolling in the Dental Assisting program have the potential for routine or unplanned exposure to blood and/or other potentially infectious body material pathogens in the normal conduct of student instructional activities. For further information please visit <http://www.dtae.org/dtaepolicy/docs/04-03-17.html>**

# Diesel Equipment Technology QP04

Butts County Center

## The Diploma Program

This program is a sequence of courses that prepares the student for entry into the Diesel powered vehicle and equipment service and repair profession. The program emphasizes a combination of Diesel theory and practical application necessary for successful employment.

The program is a technically advanced program that provides the student with the knowledge and skills for progression to become a certified technician in the Diesel powered truck industry. Training in advanced electronics and modern technologies play a vital role in the comprehensive Diesel training program. The program prepares the students to pass ASE truck technician certification tests.

## Diploma Admission Requirements

Applicants must meet general admission requirements, and must also:

1. Present documentation of a valid driver's license.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$350 and up
- Equipment/supplies.....\$70 and up

## Curriculum

Minimum credits required for graduation: **90**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **51**

SCT	100	Introduction to Microcomputers	3
DET	121	Overview of Diesel Technology Tools & Safety	5
DET	123	Preventative Maintenance I	4
DET	124	Preventative Maintenance II	3
DET	125	Electrical and Electronics Systems	4
DET	127	Starting & Charging Systems	3
DET	129	Hydraulic Systems	4
DET	131	Electronic Controls & Accessory Systems	5
DET	132	Diesel Engine Overhaul & Servicing I	5
DET	133	Diesel Engine Overhaul & Servicing II	5
DET	135	Diesel Engine Fuel System, Tune-up & Performance	5
DET	137	Heating, Ventilation & Air Conditioning	5

### Truck Specialization **26**

DET	211	Hydraulic Brake Systems	4
DET	213	Air Brake Systems	4
DET	215	Steering & Suspension Systems I	3
DET	216	Steering & Suspension Systems II	3
DET	217	On Highway Truck Power Train Systems I	4
DET	218	On Highway Truck Power Train Systems II	4
DET	220	Automatic Transmissions	4

# Drafting Technology DR02

## Griffin Campus

### The Diploma Program

The Drafting diploma program provides students with an understanding of the concepts, principles, and techniques required for employment in the drafting field. Students would choose one of the two specializations: architectural or mechanical.

This program is designed to meet the needs of a diverse industry where employment opportunities are available with home builders, surveyors, engineering offices (architectural, civil, electrical, and mechanical), state and local government agencies, utility companies, and any type of manufacturing industry.

Theories covered in the architectural specialization include geometric construction, size and shape description, residential design, mechanical systems for architecture, basic CAD applications, intermediate CAD applications, and 3D drawing and modeling.

Theories covered in the mechanical specialization include geometric construction, size and shape description, auxiliary views, specification of fasteners, assembly drawings, intersections and development, basic CAD applications, intermediate CAD applications, and 3D drawing and modeling.

### Related Programs of Study:

- Drafting Technology Degree
- Advanced Architectural Drafting Specialist Certificate
- Computer Aided Drafting Specialist Certificate

## Curriculum

Minimum credits required for graduation: **77**

### General Core **18**

ENG	1010	Fundamentals of English I	5
MAT	1013	Algebraic Concepts	5
MAT	1015	Geometry and Trigonometry	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **32**

SCT	100	Introduction to Microcomputers	3
DDF	100	Drafting Fundamentals <b>OR</b>	6
DDF	101	Introduction to Drafting	(6)
DDF	102	Size & Shape Description I	5
DDF	107	CAD Fundamentals	6
DDF	111	Intermediate CAD	6
DDF	112	3D Drawing & Modeling	6

### Specializations

Completion of one of the following specializations is required for graduation.

### Architectural Drafting Specialization **27**

DDS	203	Surveying I <b>OR</b>	3
DDS	204	Estimating	(3)
DDS	205	Residential Architectural Drawing I	6
DDS	207	Mechanical Systems for Architecture	3
DDS	208	Residential Architectural Drawing II	6
XXX	xxx	Electives	9

### Mechanical Drafting Specialization **27**

DDF	103	Size & Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	106	Fasteners	6
DDF	108	Intersections and Development	5
DDF	109	Assembly Drawings I	5
XXX	xxx	Electives	3

# Drafting Technology DR03

## Griffin Campus

### The Associate Degree Program

The Drafting degree program provides students with an understanding of the concepts, principles, and techniques required for employment in the drafting field. Students would choose one of the two specializations: architectural or mechanical.

This program is designed to meet the needs of a diverse industry where employment opportunities are available with home builders, surveyors, engineering offices (architectural, civil, electrical, and mechanical), state and local government agencies, utility companies, and any type of manufacturing industry.

Theories covered in the architectural specialization include geometric construction, size and shape description, residential design, mechanical systems for architecture, basic CAD applications, intermediate CAD applications, and 3D drawing and modeling.

Theories covered in the mechanical specialization include geometric construction, size and shape description, auxiliary views, specification of fasteners, assembly drawings, intersections and development, basic CAD applications, intermediate CAD applications, and 3D drawing and modeling.

### Related Programs of Study:

- Drafting Technology Diploma
- Advanced Architectural Drafting Specialist Certificate
- Computer Aided Drafting Specialist Certificate

## Curriculum

Minimum credits required for graduation: **96**

### General Core **35**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
SOC	1101	Introduction to Sociology <b>OR</b>	5
PSY	1101	Introductory Psychology	(5)
MAT	1111	College Algebra	5
MAT	1112	College Trigonometry <b>OR</b>	5
MAT	1113	Pre Calculus	(5)
PHY	1110	Introductory Physics <b>OR</b>	5
PHY	1111	Mechanics	(5)

### Occupational Core **32**

SCT	100	Introduction to Microcomputers	3
DDF	100	Drafting Fundamentals <b>OR</b>	6
DDF	101	Introduction to Drafting	(6)
DDF	102	Size & Shape Description I	5
DDF	107	CAD Fundamentals	6
DDF	111	Intermediate CAD	6
DDF	112	3D Drawing & Modeling	6

### Specializations

Completion of one of the following specializations is required for graduation.

### Architectural Drafting **29**

DDS	203	Surveying I <b>OR</b>	3
DDS	204	Estimating	(3)
DDS	205	Residential Architectural Drawing I	6
DDS	207	Mechanical Systems for Architecture	3
DDS	208	Residential Architectural Drawing II	6
XXX	xxx	Electives	11

### Mechanical Drafting **29**

DDF	103	Size & Shape Description II	5
DDF	105	Auxiliary Views	3
DDF	106	Fasteners	6
DDF	108	Intersections and Development	5
DDF	109	Assembly Drawings I	5
XXX	xxx	Electives	5

# Early Childhood Care & Education 0002

## The Diploma Program

The Early Childhood Care and Education program is a sequence of courses designed to prepare students for careers in child care and related fields. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of early childhood care and education theory and practical application necessary for successful employment. Program graduates have the qualification of early childhood care and education provider.

### Additional Requirements

The State of Georgia has a law regarding the placement of persons with criminal records in childcare facilities. Anyone who has been convicted of a felony offense, or of neglecting or abusing a dependent person, a sexual offense or any other "covered crime" will not be allowed to work in a childcare facility. If you are affected by this law, or think you may be, discuss your situation immediately with your advisor. Because your employment options may be severely limited in the early childhood profession, a person who has received an unsatisfactory criminal records check is discouraged from pursuing the ECCE Program of Study and may need to reconsider his or her chosen field of study.

Approximate additional costs other than tuition, fees, and textbooks:

- Criminal record background check ..... varies
- Liability insurance ..... \$12
- T.B. skin test ..... \$25
- CPR ..... \$25
- First Aid ..... \$25

### Related Programs of Study:

- Early Childhood Care and Education Degree
- Infant and Toddler Child Care Specialist Certificate
- Child Development Association I Certificate
- School Age and Youth Care Certificate
- Child Development Specialist Certificate
- Early Childhood Program Administration Certificate
- Family Child Care Provider Certificate

## Curriculum

Minimum credits required for graduation: **73**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **60**

SCT	100	Introduction to Microcomputers	3
ECE	1010	Intro. To Early Childhood Care & Education	5
ECE	1030	Human Growth and Development I	5
ECE	1050	Health, Safety, and Nutrition	5
ECE	1012	Curriculum Development	3
ECE	1013	Art for Children	3
ECE	1014	Music and Movement	3
ECE	2115	Language Arts and Literature	5
ECE	2116	Math and Science	5
ECE	1021	Early Childhood Care & Education Practicum I <b>OR</b>	3
ECE	xxx	Program Elective	(3)
ECE	1022	Early Childhood Care & Education Practicum II <b>OR</b>	3
ECE	xxx	Program Elective	(3)
ECE	2020	Social Issues & Family Involvement	5
ECE	2240	Early Childhood Care & Education Internship	12

## Early Childhood Care & Education 0003

### The Associate Degree Program

The Early Childhood Care and Education associate degree program is a sequence of courses designed to prepare students for careers in child care and related fields. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of early childhood care and education theory and practical application necessary for successful employment. Program graduates receive an Early Childhood Care and Education Associate of Applied Science Degree with a specialization in one of the following areas: paraprofessional, exceptionalities, Family Childcare Provider, Infant and Toddler, School Age and Youth Care, or program management.

#### Additional Requirements

The State of Georgia has a law regarding the placement of persons with criminal records in childcare facilities. Anyone who has been convicted of a felony offense, or of neglecting or abusing a dependent person, a sexual offense or any other "covered crime" will not be allowed to work in a childcare facility. If you are affected by this law, or think you may be, discuss your situation immediately with your advisor. Because employment options may be severely limited in the early childhood profession, a person who has received an unsatisfactory criminal records check is discouraged from pursuing the ECCE Program of Study and may need to reconsider his or her chosen field of study.

Approximate additional costs other than tuition, fees, and textbooks:

- Criminal record background check...varies
- Liability insurance.....\$12
- T.B. skin test.....\$25
- CPR.....\$25
- First Aid.....\$25
- 

#### Related Programs of Study:

- Early Childhood Care and Education Degree
- Infant and Toddler Child Care Specialist Certificate
- Child Development Association I Certificate
- School Age and Youth Care Certificate
- Child Development Specialist Certificate
- Early Childhood Program Administration Certificate
- Family Child Care Provider Certificate

### Curriculum

Minimum credits required for graduation: **110**

#### General Core **30-31**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
ART	1101	Art Appreciation <b>OR</b>	(5)
MUS	1101	Music Appreciation <b>OR</b>	(5)
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning <b>OR</b>	6
MAT	1101	Mathematical Modeling	(5)
XXX	xxx	General Core Elective	5

#### Occupational Core **65**

SCT	100	Introduction to Microcomputers	3
ECE	1010	Intro. To Early Childhood Care & Education	5
ECE	1030	Human Growth and Development I	5
ECE	1050	Health, Safety, and Nutrition	5
ECE	1012	Curriculum Development	3
ECE	1013	Art for Children	3
ECE	1014	Music and Movement	3
ECE	2115	Language Arts and Literature	5
ECE	2116	Math and Science	5
ECE	1021	Early Childhood Care & Education Practicum I <b>OR</b>	3
ECE	xxx	Program Elective	(3)
ECE	1022	Early Childhood Care & Education Practicum II <b>OR</b>	3
ECE	xxx	Program Elective	(3)
ECE	2010	Exceptionalities	5
ECE	2020	Social Issues & Family Involvement	5
ECE	2240	Early Childhood Care & Education Internship	12

#### Specializations

Completion of one of the following specializations is required for graduation.

#### Paraprofessional **15**

ECE	2030	Human Growth and Development II	5
ECE	2110	Methods and Materials	5
ECE	2120	Professional Practices & Classroom Management	5

#### Program Management **15**

ECE	2170	Program Administration	5
ECE	2210	Facility Management	5
ECE	2220	Personnel Management	5

#### Family Child Care Provider **15**

ECE	2142	Family Child Care Program Management	5
ECE	2144	Family Child Care Business Management	5
ECE	xxxx	Elective	5

# Electrical Construction & Maintenance W002

## Griffin Campus

### The Diploma Program

This program is a sequence of courses that prepares students for careers in electrification industries. The program is a technically advanced program that provides the student with training in the areas of residential and commercial sites, single and three phase motors, variable speed controls, and other applications governed by the National Electrical Code.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools .....\$350
- Equipment/supplies .....\$70 and up

### Related Programs of Study:

- Industrial Electrical Technology Diploma
- Apprentice Lineworker Basic Certificate
- Electrical Technician Certificate
- Industrial Electrical Controls Certificate

## Curriculum

Minimum credits required for graduation: **72**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev	3

### Occupational Core **59**

SCT	100	Introduction to Microcomputers	3
ELT	106	Electrical Prints, Schematics, & Symbols	4
ELT	107	Commercial Wiring I	5
ELT	108	Commercial Wiring II	5
ELT	109	Commercial Wiring III	5
ELT	111	Single Phase & Three-Phase Motors	5
ELT	112	Variable Speed/Low Voltage Controls	3
ELT	118	Electrical Controls	5
ELT	119	Electricity Principles II	4
ELT	120	Residential Wiring I	5
ELT	121	Residential Wiring II	6
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
XXX	xxx	Technical Electives	3



# Electronics Technology EFA4

## The Diploma Program

The Electronics Technology Diploma program is a sequence of courses designed to prepare students for careers in electronics technology professions. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. Program graduates are to be competent in the general areas of communications, mathematics, computer literacy, and interpersonal relations. The program emphasizes a combination of electronics technology theory and practical application necessary for successful employment using both manual and computerized electronics systems. Program graduates receive an Electronics Technology Diploma which qualifies them as electronics technicians with a specialization in communications electronics, computer electronics, general electronics, industrial electronics, or telecommunications electronics.

### Electronics in the Workplace

This program is designed to meet the demands for employment opportunities which include Industrial Electronic, Telecommunications, and Computer Electronics. Graduate opportunities for Electronics students include Industrial Manufacturing Technicians, Telecommunications Installers and Technicians, and Computer/Networking Technicians.

## Curriculum

Minimum credits required for graduation: **90**

### General Core **18**

ENG	1010	Fundamentals of English I	5
MAT	1013	Algebraic Concepts	5
MAT	1015	Geometry and Trigonometry <b>OR</b>	5
MAT	1017	Trigonometry	(5)
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **47**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I <b>OR</b>	4
ELC	106	Direct Current Circuits I	(4)
IFC	102	Alternating Current I <b>OR</b>	4
ELC	109	Alternating Current I	(4)
IFC	103	Solid State Devices I <b>OR</b>	4
ELC	114	Solid State Devices I	(4)
ELC	104	Soldering Technology	2
ELC	108	Direct Current Circuits II	4
ELC	110	Alternating Current II	4
ELC	115	Solid State Devices II	4
ELC	117	Linear Integrated Circuits	4
ELC	118	Digital Electronics I	4
ELC	119	Digital Electronics II	4
ELC	120	Microprocessors Fundamentals	4

### Specializations

Completion of one of the following specializations is required for graduation.

### General Electronics Technology **25**

#### Griffin Campus

XXX	xxx	Technically Related Elective(s)	25
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### Industrial Electronics Technology **25**

#### Griffin & Flint River Campus

ELC	211	Process Control	6
ELC	212	Motor Controls	6
ELC	213	Programmable Controllers	5
ELC	214	Mechanical Devices	3
ELC	215	Fluid Power	3
ELC	216	Robotics	2

### Telecommunications Electronics **25**

#### Griffin Campus

ELC	217	Computer Hardware	7
ELC	219	Networking I	4
ELC	259	Fiber Optic Systems	4
ELC	260	Telecommunications and Data Cabling	4
ELC	261	Telecommunications Systems Installation and Programming	3
ELC	262	Telecommunications and Data Transmission Concepts	3

<b>Computer Electronics</b>	<b>25</b>	
<b>Griffin Campus</b>		
ELC 217 Computer Hardware	7	7
ELC 218 Operating Systems Technologies	7	
ELC 219 Networking I	4	
ELC 286 CompTIA A+ Certification	5	
XXX xxx Technically Related Electives	2	

<b>Communication Electronics</b>	<b>25</b>	
<b>Flint River Campus</b>		
ELC 220 AM and SSB Circuit Analysis	4	
ELC 221 FM Circuit Analysis	4	
ELC 222 Advanced Modulation Techniques	4	
ELC 223 Antennas and Transmission Lines	4	
ELC 224 Microwave Communications and Radar	5	
ELC 225 Optical Communications Techniques	4	

# Electronics Technology EFA3

## The Associate Degree Program

The Electronics Technology Degree program is a sequence of courses designed to prepare students for careers in electronics professions. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of electronics technology theory and practical application necessary for successful employment using both manual and computerized electronics systems. Program graduates receive an Electronics Technology Associate of Science Degree which qualifies them as electronics technicians with a specialization in communication electronics, computer electronics, industrial electronics, general electronics, or telecommunication electronics.

### Electronics in the Workplace

This program is designed to meet the demands for employment opportunities which include Industrial Electronic, Telecommunications, and Computer Electronics. Graduate opportunities for Electronics students include Industrial Manufacturing Technicians, Communications Technician, Telecommunications Installers and Technicians, Computer/Networking Technicians, or General Technicians.

## Curriculum

Minimum credits required for graduation: **102**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology <b>OR</b>	5
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra	5
MAT	1113	Precalculus <b>OR</b>	5
MAT	1112	College Trigonometry	(5)

### Occupational Core **47**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I <b>OR</b>	4
ELC	106	Direct Current Circuits I	(4)
IFC	102	Alternating Current I <b>OR</b>	4
ELC	109	Alternating Current I	(4)
IFC	103	Solid State Devices I <b>OR</b>	4
ELC	114	Solid State Devices I	(4)
ELC	104	Soldering Technology	2
ELC	108	Direct Current Circuits II	4
ELC	110	Alternating Current II	4
ELC	115	Solid State Devices II	4
ELC	117	Linear Integrated Circuits	4
ELC	118	Digital Electronics I	4
ELC	119	Digital Electronics II	4
ELC	120	Microprocessor Fundamentals	4

### Specializations

Completion of one of the following specializations is required for graduation.

### General Electronics Technology **25**

#### Griffin Campus

XXX	xxx	Technically Related Elective(s)	25
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### Industrial Electronics Technology **25**

#### Griffin & Flint River Campus

ELC	211	Process Control	6
ELC	212	Motor Controls	6
ELC	213	Programmable Controllers	5
ELC	214	Mechanical Devices	3
ELC	215	Fluid Power	3
ELC	216	Robotics	2

### Telecommunications Electronics **25**

#### Griffin Campus

ELC	217	Computer Hardware	7
ELC	219	Networking I	4
ELC	259	Fiber Optic Systems	4
ELC	260	Telecommunications and Data Cabling	4
ELC	261	Telecommunications Systems Installation and Programming	3
ELC	262	Telecommunications and Data Transmission Concepts	3

<b>Computer Electronics</b>			<b>25</b>		<b>25</b>
<b>Griffin Campus</b>					
ELC	217	Computer Hardware	7		7
ELC	218	Operating Systems Technologies	7		
ELC	219	Networking I	4		4
ELC	286	CompTIA A+ Certification	5	5	
XXX	xxx	Technically Related Electives	2		

<b>Communications Electronics</b>			<b>25</b>		
<b>Flint River Campus</b>					
ELC	220	AM and SSB Circuit Analysis	4		
ELC	221	FM Circuit Analysis	4		
ELC	222	Advanced Modulations Techniques	4		
ELC	223	Antennas and Transmission Lines	4		
ELC	224	Microwave Communications and Radar	5		
ELC	225	Optical Communications Techniques	4	4	

# Environmental Horticulture EH02

## Griffin Campus

### The Diploma Program

The Environmental Horticulture diploma program is designed to provide educational opportunities for students that will enable them to succeed in the field of environmental horticulture and related areas. Graduates of this program will be competent in the science of horticulture, plant identification, integrated pest management, landscape design, landscape installation, landscape management, equipment use and maintenance, and the construction of hardscapes. In addition, specialized skills may include turfgrass installation and management, irrigation, nursery production, greenhouse operations, and garden center management.

This program is designed to meet the increasing demands for employment opportunities in the areas of plant production, plant retailing, landscape design, landscape installation, and landscape management. Graduates may be employed as horticulturalists, nursery and greenhouse workers, garden center managers, landscape designers, landscape contractors, irrigation technicians, turfgrass managers, lawn service technicians, and professional grounds management.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$50
- Uniforms .....\$75

### Related Programs of Study:

- Environmental Horticulture Degree
- Floral Assistant Certificate
- Landscape Specialist Certificate
- Garden Center Technician Certificate

## Curriculum

Minimum credits required for graduation: **78**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **27**

SCT	100	Introduction to Microcomputers	3
EHO	100	Horticulture Science	5
EHO	101	Woody Ornamental Plant Identification	6
EHO	102	Herbaceous Plant Identification	5
EHO	108	Pest Management	5
EHO	115	Environmental Horticulture Internship	3

### Specializations

Completion of one of the following specializations is required for graduation.

### Horticulturist **38**

EHO	103	Greenhouse Operations	3
EHO	104	Basic Landscape Construction	4
EHO	105	Nursery Production	4
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	112	Landscape Management	5
EHO	114	Garden Center Management	3
XXX	xxx	Electives	11

### Landscape Management **38**

EHO	104	Basic Landscape Construction	4
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	112	Landscape Management	5
EHO	133	Turfgrass Management	5
EHO	131	Irrigation	5
XXX	xxx	Electives	11

# Environmental Horticulture EH03

## Griffin Campus

### The Associate Degree Program

The Environmental Horticulture degree program is designed to provide educational opportunities for students that will enable them to succeed in the field of environmental horticulture and related areas. Graduates of this program will be competent in the science of horticulture, plant identification, integrated pest management, landscape design, landscape installation, landscape management, equipment use and maintenance, and the construction of hardscapes. In addition, specialized skills may include turfgrass installation and management, irrigation, nursery production, greenhouse operations, and garden center management.

This program is designed to meet the increasing demands for employment opportunities in the areas of plant production, plant retailing, landscape design, landscape installation, and landscape management. Graduates may be employed as horticulturalists, nursery and greenhouse workers, garden center managers, landscape designers, landscape contractors, irrigation technicians, turfgrass managers, lawn service technicians, and professional grounds management.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$50
- Uniforms .....\$75

### Related Programs of Study:

- Environmental Horticulture Diploma
- Floral Assistant Certificate
- Landscape Specialist Certificate
- Garden Center Technician Certificate

## Curriculum

Minimum credits required for graduation: **95**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
MAT	1111	College Algebra	5
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communication	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
ECO	1101	Principles of Economics	(5)
PHY	1110	Introduction to Physics <b>OR</b>	5
BIO	1111	Biology I	(5)

### Occupational Core **27**

SCT	100	Introduction to Microcomputers	3
EHO	100	Horticulture Science	5
EHO	101	Woody Ornamental Plant Identification	6
EHO	102	Herbaceous Plant Identification	5
EHO	108	Pest Management	5
EHO	115	Environmental Horticulture Internship	3

### Specializations

Completion of one of the following specializations is required for graduation.

### Horticulturist **38**

EHO	103	Greenhouse Operations I	3
EHO	104	Basic Landscape Construction	4
EHO	105	Nursery Production	4
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	112	Landscape Management	5
EHO	114	Garden Center Management	3
XXX	xxx	Guided Electives	11

### Landscape Management **38**

EHO	104	Basic Landscape Construction	4
EHO	106	Landscape Design	5
EHO	107	Landscape Installation	3
EHO	112	Landscape Management	5
EHO	133	Turfgrass Management	5
EHO	131	Irrigation	5
XXX	xxx	Guided Electives	11

# Forensic Science Technology FOR2

## Griffin Campus

### The Diploma Program

The Forensic Science Technology diploma program is a sequence of courses designed to prepare the students for various careers in the rapidly growing field of forensic science. Students will gain the knowledge, skills and abilities necessary for entrance, retention or advancement in the field of forensic science.

The general core component of the curriculum is designed to develop oral, written and analytical skills while the technical core provides the necessary background in the natural sciences. Specific technical courses will focus on specific areas of forensic science such as courtroom testimony, report writing, crime scene investigation, forensic photography, death investigation, and criminal procedure.

Program graduates should be prepared for employment as Crime Scene Investigators, Laboratory Technicians, Evidence Technicians, Medical Examiner Investigators, and in general forensic science or criminal justice fields.

### Diploma Admission Requirements

Applicants must meet general admissions requirements and also must:

1. Be at least 18 years of age.
2. Some courses require a grade of "C" or higher for advancement to the next course of study.
3. Science courses transfer only if taken in the last five years.

### Related Programs of Study:

- Forensic Science Degree
- Criminal Justice Diploma
- Criminal Justice Degree
- Criminal Justice Specialist Certificate
- Law Enforcement Specialist Certificate

## Curriculum

Minimum credits required for graduation:

Crime Scene Investigation:	<b>77</b>
Forensic Computer Science:	<b>89</b>

### General Core **15**

ENG 1010	Fundamentals of English I	5
MAT 1012	Foundations of Mathematics	5
PSY 1010	Basic Psychology	5

### Occupational Core **27**

SCT 100	Introduction to Microcomputers	3
AHS 1011	Anatomy & Physiology	5
AHS 1015	Basic Inorganic Chemistry	4
FST 100	Introduction to Criminal Justice	5
FST 206	Introduction to Forensic Science	5
FST 214	Documentation & Report Preparation	5

### Specializations

Completion of one of the following specializations is required for graduation.

### Crime Scene Investigation **35**

FST 210	Crime Scene Investigation I	5
FST 211	Crime Scene Investigation II	5
FST 215	Case Preparation and Courtroom Testimony	5
FST 230	Criminal Procedure	5
FST xxx	Electives	15

### Forensic Computer Science **47**

FST 210	Crime Scene Investigation I	5
FST 230	Criminal Procedure	5
CIS 103	Operating System Concepts	6
CIS 122	Microcomputer Installation & Maintenance	7
CIS 286	A+ Certification	7
CIS 1140	Networking Fundamentals	6
FST 239	Computer Forensics	6
FST xxx	Guided Electives	5

# Forensic Science Technology FOR3

## Griffin Campus

### The Associate Degree Program

The Forensic Science Technology degree program is a sequence of courses designed to prepare students for various careers in the rapidly growing field of forensic science. Students will gain the knowledge, skills and abilities necessary for entrance, retention or advancement in the field of forensic science.

The general core component of the curriculum is designed to develop oral, written and analytical skills while the technical core provides the necessary background in the natural sciences. Specific technical courses will focus on specific areas of forensic science such as courtroom testimony, report writing, crime scene investigation, forensic photography, death investigation, and criminal procedure.

Program graduates should be prepared for employment as Crime Scene Investigators, Laboratory Technicians, Evidence Technicians, Medical Examiner Investigators and in general forensic science or criminal justice fields.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements and also must:

1. Be at least 18 years of age.
2. Some courses require a grade of "C" or higher for advancement to the next course of study.
3. Science courses transfer only if taken in the last five years.

### Related Programs of Study:

- Forensic Science Diploma
- Criminal Justice Diploma
- Criminal Justice Degree
- Criminal Justice Specialist Certificate
- Law Enforcement Specialist Certificate

## Curriculum

Minimum credits required for graduation:

Crime Scene Investigation: **98**  
Forensic Computer Science: **110**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
CHM	1111	Introduction to Chemistry	5
MAT	1111	College Algebra	5

### Occupational Core **33**

SCT	100	Introduction to Microcomputers	3
BIO	2113	Anatomy & Physiology I	5
BIO	2114	Anatomy & Physiology II	5
BIO	2117	Introduction to Microbiology	5
FST	100	Introduction to Criminal Justice	5
FST	206	Introduction to Forensic Science	5
FST	214	Documentation & Report Preparation	5

### Specializations

Completion of one of the following specializations is required for graduation.

### Crime Scene Investigation **35**

FST	210	Crime Scene Investigation I	5
FST	211	Crime Scene Investigation II	5
FST	215	Case Preparation and Court Room Testimony	5
FST	230	Criminal Procedure	5
FST	xxx	Electives	15

### Forensic Computer Science **47**

FST	210	Crime Scene Investigation I	5
FST	230	Criminal Procedure	5
CIS	103	Operating System Concepts	6
CIS	122	Microcomputer Installation & Maintenance	7
CIS	286	A+ Certification	7
CIS	1140	Networking Fundamentals	6
FST	239	Computer Forensics	6
FST	xxx	Guided Electives	5



# Health

# AHN3

## The Associate Degree Program

The AAS in Health is designed to increase the student's understanding of the social, psychological, and managerial aspects of the work environment.

## Curriculum

Minimum credits required for graduation: **95**

### General Core **35**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
MAT	1111	College Algebra	5
BIO	2113	Anatomy and Physiology I	5
BIO	2114	Anatomy and Physiology II	5

### Occupational Core **60**

XXX xxx Occupational Core courses **\*60**

\*Must complete 60 hours of course work from one of the "Occupational Core" area of one of the following programs of study:

- Dental Assisting
- Practical Nursing

Note: See your advisor for information on additional programs that are acceptable for the Occupational Core requirement of the AAS degree in Health.

# Health Information Technology HIT3

## Griffin Campus

### The Associate Degree Program

The Health Information Technology associate degree program is a sequence of courses designed to provide students with the technical knowledge and skills necessary to process, maintain, compile, and report health information data for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment and research; to abstract and code clinical data using appropriate classification systems; and to analyze health records according to standards. Also, program graduates will develop leadership skills necessary to serve in a functional supervisory role in various components of the health information system.

Upon admission to the College, students desiring the Health Information Technology program as his/her major will be placed in the Health Care Science Certificate while working on program admission requirement.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements, and:

1. Must be at least 17 years of age.
2. Upon successful completion (or transfer in) of the following courses: ENG 1101, SPC 1101, BIO 2113, BIO 2114, AHS 109, MAS 112, and SCT 100 with a minimum grade of "C" in each course and a grade point average (GPA) of 2.5 or higher, the student will be "program ready" and eligible for admission into the Health Information Technology program. Medical courses transfer only if taken within the last five years or if the student has a conferred degree. Applicants are accepted as full time students only.
3. Students will be placed on a list in the order of their program ready date. Applicants are accepted into the Health Information Technology program Summer and Winter Quarter. The program is offered in a combination of traditional, online, and hybrid format.
4. If a student changes his/her declared major from Health Information Technology (HIT) to a different program of study, and changes back to HIT, the latest program application date will be used to determine placement.
5. Students must pass each HIT course with a "C" or better in order progress to the next course of study. Students must maintain a minimum GPA of 3.0 to remain in the program.

### Readmission Policy

Readmission into the Health Information Technology program following voluntary withdrawal will be allowed once pending the student has a 3.0 or higher GPA. Upon readmission, the student will be required to complete additional program requirements as designated by the program faculty.

## Curriculum

Minimum credits required for graduation: **108**

### General Core **35**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
MAT	1111	College Algebra	5
BIO	2113	Anatomy and Physiology I	5
BIO	2114	Anatomy and Physiology II	5

### Occupational Core **73**

AHS	109	Medical Terminology	3
AHS	155	Epidemiology	3
SCT	100	Introduction to Microcomputers	3
HCMT	203	Healthcare Supervision	5
HCMT	204	Healthcare Management	5
HIT	201	Introduction to Health Information Technology	3
HIT	202	Legal Aspects of Health Information Technology	3
HIT	203	Health Data Management	5
HIT	204	Healthcare Statistics and Research	4
HIT	205	Performance Improvement	3
HIT	206	Health Information Technology Practicum I	4
HIT	207	Health Information Technology Practicum II	4
HIT	208	Health Information Technology Practicum III	4
HIT	210	Computers in Health Care	3
HIT	215	Coding and Classification I	4
HIT	216	Coding and Classification II	4
HIT	217	Coding and Classification III	3
MAS	103	Pharmacology	5
MAS	112	Human Diseases	5

# Industrial Electrical Technology IEA2

## Griffin Campus

### The Diploma Program

This program is a sequence of courses that prepares students for careers in electrification industries. The program is a technically advanced program that provides the student with training in the areas of residential, commercial and industrial electrification. Training in this area begins with the basic concept levels and progresses logically to the more complex areas of electricity and its functions as applied to residential, commercial and industrial specializations.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$350
- Equipment/supplies .....\$70 and up

### Related Programs of Study:

- Electrical Construction and Maintenance Diploma
- Electrical Technician Certificate
- Industrial Electrical Controls Technician Certificate

## Curriculum

Minimum credits required for graduation: **88**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev	3

### Occupational Core **75**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
ELT	106	Electrical Prints, Schematics, & Symbols	4
ELT	119	Electricity Principles II	4
ELT	120	Residential Wiring I	5
ELT	121	Residential Wiring II	6
ELT	107	Commercial Wiring I	5
ELT	108	Commercial Wiring II	5
ELT	109	Commercial Wiring III	5
ELT	111	Single Phase & Three-Phase Motors	5
ELT	112	Variable Speed Controls	3
ELT	116	Transformers	4
ELT	117	National Electrical Code Industrial Applications	4
ELT	118	Electrical Controls	5
ELT	122	Industrial PLC's	6
XXX	xxx	Technical Electives	5

# Industrial Systems Technology ICS4

## Griffin Campus

### The Diploma Program

The Industrial Systems Technology diploma program is designed for the student who wishes to prepare for a career as an Industrial Systems technician, electrician, or mechanic. The program provides learning opportunities that introduce, develop and reinforce academic and technical knowledge, skill, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skill. The diploma program of study develops skills in Industrial Systems Technology providing background skills in several areas of industrial maintenance including electronics, industrial wiring, motors, controls, PLC's, instrumentation, fluid power, mechanical, pumps and piping, and computers.

Graduates of the program receive an Industrial Systems Technology Diploma that qualifies them for employment as industrial electrician, industrial systems technician, industrial mechanical technician, multi-craft industrial systems technician.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools.....\$150
- Equipment/supplies.....\$70 and up

### Related Programs of Study:

- Industrial Systems Technology Degree
- Industrial Electrician Certificate
- Industrial Motor Control Technician Certificate
- Industrial Fluid Power Technician Certificate
- Programmable Control Technician I Certificate

## Curriculum

Minimum credits required for graduation: **90**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1013	Algebraic Concepts	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **77**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
IDS	101	Industrial Computer Applications	5
IDS	103	Industrial Wiring I	6
IDS	105	DC and AC Motors	3
IDS	110	Fundamentals of Motor Controls	3
IDS	113	Magnetic Starters and Braking	3
IDS	115	Two-Wire Control Circuits	2
IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLC's	6
IDS	142	Industrial PLC's	6
IDS	209	Industrial Instrumentation	6
IDS	215	Industrial Mechanics	6
IDS	221	Industrial Fluidpower	7
IDS	231	Pumps and Piping Systems	2

# Industrial Systems Technology ICS3

## Griffin Campus

### The Associate Degree Program

The Industrial Systems Technology Degree program is designed to provide educational opportunities for students that will enable them to succeed in the field of Industrial Systems and related areas. The Associate Degree program builds upon the diploma program in Industrial Systems Technology, providing background skills in several areas of industrial maintenance and control systems. The program provides learning opportunities that introduce, develop and reinforce academic and technical knowledge, skill, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skill.

Graduates of the program qualifies them for employment as Industrial Systems Technician, Industrial Electrician, Industrial Mechanical Technician, Multi-craft Industrial Technician or Automation Control Technician.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools ..... \$150
- Equipment/supplies ..... \$70 and up

### Related Programs of Study:

- Industrial Systems Technology Diploma
- Industrial Electrician Certificate
- Industrial Motor Control Technician Certificate
- Industrial Fluid Power Technician Certificate
- Programmable Control Technician I Certificate

## Curriculum

Minimum credits required for graduation: **107**

### General Core **30**

ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
ECO	1101	Principles of Economics <b>OR</b>	(5)
SOC	1101	Introduction to Sociology	(5)
MAT	1111	College Algebra	5
MAT	1113	Precalculus <b>OR</b>	5
PHY	1110	Introductory Physics	(5)

### Occupational Core **77**

SCT	100	Introduction to Microcomputers	3
IFC	100	Industrial Safety Procedures	2
IFC	101	Direct Current Circuits I	4
IFC	102	Alternating Current I	4
IFC	103	Solid State Devices I	4
IDS	101	Industrial Computer Applications	5
IDS	103	Industrial Wiring I	6
IDS	105	DC and AC Motors	3
IDS	110	Fundamentals of Motor Controls	3
IDS	113	Magnetic Starters and Braking	3
IDS	115	Two-Wire Control Circuits	2
IDS	121	Advanced Motor Controls	2
IDS	131	Variable Speed Motor Control	3
IDS	141	Basic Industrial PLCs	6
IDS	142	Industrial PLCs	6
IDS	209	Industrial Instrumentation	6
IDS	215	Industrial Mechanics	6
IDS	221	Industrial Fluidpower	7
IDS	231	Pumps and Piping Systems	2

# Internet Specialist-Web Applications & Services Development IWA2

## Griffin Campus

### The Diploma Program

The Computer Information Systems Web Applications and Services Development diploma program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates are qualified for employment as E-Commerce web programmers.

### Related Programs of Study:

- Networking Specialist Degree
- Networking Specialist Diploma
- Computer Programming Degree
- Computer Programming Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist Web Site Designer Certificate
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- Internet Specialist Web Site Developer Certificate
- Comp TIA A+ Certified Technician Preparation Certificate
- Installation and Support Technician Certificate

## Curriculum

Minimum credits required for graduation: **88**

### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1013	Algebraic Concepts <b>OR</b>	5
MAT	1011	Business Mathematics	(5)
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **70**

CIS	xxx	Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN and WAN	(6)
SCT	100	Introduction to Microcomputers	3
CIS	2202	XHTML Fundamentals	5
CIS	2231	Design Methodology	6
CIS	2281	Database Connectivity	6
CIS	2261	JavaScript Fundamentals	4
CIS	2211	Web Site Design Tools	6
CIS	xxxx	Electives Approved by Advisor	4-6
CIS	xxxx	Web Programming Electives*	14-16

### \*Web Programming Electives

CIS	1109	Intro to Web Program. using VB.NET	4
CIS	1106	Intro to Web Program. using C#. NET	4
CIS	1107	Introduction to Web Program. using Perl	4
CIS	1110	Intro to Web Program. using PHP	4
CIS	1111	Intro to Web Program. using Python	4
CIS	2109	Advanced Web Program. using VB. NET	6
CIS	2107	Advanced Web Program. using Perl	6
CIS	2110	Advanced Web Program. using PHP	6
CIS	2106	Advanced Web Program. using C#. NET	6
CIS	2111	Advance Web Program. using Python	6
CIS	2291	Network Security	6
CIS	252	Intro to Java Program	7
CIS	2421	Intermediate Java Program	7
CIS	xxxx	Any Introduction to VB.NET	7
CIS	xxxx	Any Advanced VB.NET	7

# Internet Specialist-Web Applications & Services Development IWA3

## Griffin Campus

### The Associate Degree Program

The Computer Information Systems Web Applications and Services Development associate degree program is a sequence of courses designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, and natural sciences or mathematics, as well as in the technical areas of computer terminology and concepts, program design and development, and computer networking. Program graduates are qualified for employment as E-Commerce web programmers.

### Related Programs of Study:

- Networking Specialist Degree
- Networking Specialist Diploma
- Computer Programming Degree
- Computer Programming Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Diploma
- Internet Specialist Web Site Designer Certificate
- Internet Specialist Web Site Developer Certificate
- Comp TIA A+ Certified Technician Preparation Certificate

## Curriculum

Minimum credits required for graduation: **100**

### General Core **30**

ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature and Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
SOC	1101	Introduction to Sociology <b>OR</b>	(5)
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
XXX	xxxx	General Core Elective	5

### Occupational Core **70**

CIS	xxx	Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN and WAN	(6)
SCT	100	Introduction to Microcomputers	3
CIS	2202	XHTML Fundamentals	5
CIS	2231	Design Methodology	6
CIS	2281	Database Connectivity	6
CIS	2261	JavaScript Fundamentals	4
CIS	2211	Web Site Design Tools	6
CIS	xxxx	Electives Approved by Advisor	4-6
CIS	xxxx	Web Programming Electives*	14-16

### \*Web Programming Electives

CIS	1109	Intro to Web Program. using VB.NET	4
CIS	1106	Intro to Web Program. using C#. NET	4
CIS	1107	Introduction to Web Program. using Perl	4
CIS	1110	Intro to Web Program. using PHP	4
CIS	1111	Intro to Web Program. using Python	4
CIS	2109	Advanced Web Program. using VB. NET	6
CIS	2107	Advanced Web Program. using Perl	6
CIS	2110	Advanced Web Program. using PHP	6
CIS	2106	Advanced Web Program. using C#. NET	6
CIS	2111	Advance Web Program. using Python	6
CIS	2291	Network Security	6
CIS	252	Intro to Java Programming	7
CIS	2421	Intermediate Java Program	7
CIS	xxxx	Any Introduction to VB.NET	7
CIS	xxxx	Any Advanced VB.NET	7

# Internet Specialist- Web Site Design CIW4

## Griffin Campus

### The Diploma Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates receive a diploma and are qualified for employment as computer programming specialists, website designers, or networking specialists.

#### Related Programs of Study:

- Internet Specialist-Web Site Design Degree
- Computer Programming Specialist Degree
- Computer Programming Specialist Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Networking Special Degree
- Networking Specialist Diploma
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Site Design Degree
- Internet Specialist Web Site Designer Certificate
- Internet Specialist Web Site Developer Certificate
- Comp TIA A+ Certified Technician Preparation Certificate

### Curriculum

Minimum credits required for graduation: **90**

#### General Core **18**

EMP	1000	Interpersonal Relations & Prof. Dev.	3
ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1013	Algebraic Concepts <b>OR</b>	5
MAT	1011	Business Mathematics	(5)

#### Occupational Core **68**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	An Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Intro to LAN and WAN	(6)
CIS	2202	XHTML Fundamentals	5
CIS	2211	Web Design Tools	6
CIS	2231	Design Methodology	6
CIS	2261	JavaScript	4
CIS	2281	Database Connectivity	6
CIS	1104	Web Graphics using Photoshop <b>OR</b>	4
CIS	1108	Web Graphics using JASC Paint Shop	(4)
CIS	1123	Web Graphics and Animation using Flash <b>OR</b>	6
CIS	1124	Web Graphics and Animation using Adobe Illustrator and Adobe LiveMotion	(6)
CIS	2102	Advanced Web Graphics and Multimedia using Adobe Premiere <b>OR</b>	6
CIS	2104	Advanced Web Graphics using Multimedia using Adobe Director <b>OR</b>	(6)
CIS	2105	Advanced Web Graphics using Multimedia using Adobe Flash <b>OR</b>	(6)
CIS	2005	Advanced Web Graphics using Photoshop	(6)

#### Web Programming Elective Courses **4**

CIS	1109	Introduction to Web Programming Using VB.Net	4
CIS	1106	Introduction to Web Programming Using C#.NET	4
CIS	1107	Introduction to Web Programming Using Perl	4
CIS	1110	Introduction to Web Programming Using PHP	4
CIS	1111	Introduction to Web Programming Using Python	4
CIS	1151	CIS Internship	4
CIS	2191	Internet Business Fundamentals	4
CIS	2291	Network Security	6



# Internet Specialist- Web Site Design CIW3

## Griffin Campus

### The Associate Degree Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates receive an Associate of Applied Science degree and are qualified for employment as computer programming specialists, website designers, or networking specialists.

### Related Programs of Study:

- Internet Specialist-Web Site Design Diploma
- Computer Programming Specialist Degree
- Computer Programming Specialist Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Networking Special Degree
- Networking Specialist Diploma
- Web Applications and Services Development Diploma
- Web Applications and Services Development Degree
- Internet Specialist-Web Site Design Diploma
- Internet Specialist Web Site Designer Certificate
- Internet Specialist Web Site Developer Certificate
- Comp TIA A+ Certified Technician Preparation Certificate
- Installation and Support Technician Certificate

## Curriculum

Minimum credits required for graduation: **102**

### General Core **30**

ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
SOC	1101	Introduction to Sociology <b>OR</b>	(5)
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
XXX	xxxx	General Core Elective	5

### Occupational Core **68**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	An Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Intro to LAN and WAN	(6)
CIS	2202	XHTML Fundamentals	5
CIS	2211	Web Design Tools	6
CIS	2231	Design Methodology	6
CIS	2261	JavaScript	4
CIS	2281	Database Connectivity	6
CIS	1104	Web Graphics using Photoshop <b>OR</b>	4
CIS	1108	Web Graphics using JASC Paint Shop	(4)
CIS	1123	Web Graphics and Animation using Flash <b>OR</b>	6
CIS	1124	Web Graphics and Animation using Adobe Illustrator and Adobe LiveMotion	(6)
CIS	2102	Advanced Web Graphics and Multimedia using Adobe Premiere <b>OR</b>	6
CIS	2104	Advanced Web Graphics using Multimedia using Adobe Director <b>OR</b>	(6)
CIS	2105	Advanced Web Graphics using Multimedia using Adobe Flash <b>OR</b>	(6)
CIS	2005	Advanced Web Graphics using Photoshop	(6)

### Web Programming Elective Courses **4**

CIS	1109	Introduction to Web Programming Using VB.Net	4
CIS	1106	Introduction to Web Programming Using C#.NET	4
CIS	1107	Introduction to Web Programming Using Perl	4
CIS	1110	Introduction to Web Programming Using Python	4
CIS	1111	Introduction to Web Programming Using PHP	4
CIS	1151	CIS Internship	4
CIS	2191	Internet Business Fundamentals	4
CIS	2291	Network Security	6

# Machine Tool Technology MT02

## Griffin Campus

### The Diploma Program

This program is a sequence of courses that prepares students for employment in the machine tool technology field. The program emphasizes a combination of machine tool theory and practical application in the technical areas of blueprint reading, widely used machining concepts and practices, fundamentals of computer numerical controls, and characteristics of metal/heat treatments. Program graduates receive a diploma.

#### Related Programs of Study:

- Advanced General Machinist Certificate
- CNC Setup and Programmer Certificate
- CNC Specialist Certificate
- Mill Operator Certificate
- Lathe Operator Certificate

## Curriculum

Minimum credits required for graduation: **85**

### General Core **23**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
MAT	1013	Algebraic Concepts	5
MAT	1015	Geometry & Trigonometry	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **62**

SCT	100	Introduction to Microcomputers	3
MCH	101	Intro to Machine Tool	6
MCH	102	Blueprint Reading I	5
MCH	107	Characteristics of Metal/Heat Treatment I	4
MCH	109	Lathe Operations I	6
MCH	110	Lathe Operations II	6
MCH	112	Surface Grinder Operations	3
MCH	114	Blueprint Reading II	5
MCH	115	Mill Operations I	6
MCH	116	Mill Operations II	6
MCA	211	CNC Fundamentals	7
XXX	xxx	Elective	5

# Medical Assisting MA02

## The Diploma Program

The Medical Assisting diploma program prepares the student to sit for a national certification examination to become professionally certified as a Medical Assistant and prepares students for careers in a variety of positions in today's medical facilities. The sequence of courses emphasizes a combination of medical theory and practical application necessary for successful employment. The grading system for Medical Assisting requires a minimum course grade of "C" for progress from specified courses to more advanced courses. Classroom instruction and practical experience are divided between administrative skills and clinical skills in a variety of areas; typing, scheduling appointments, banking, bookkeeping, medical transcription, insurance coding, arranging for hospital admissions, laboratory services, maintaining patient files, examination room techniques, assisting with minor surgery, administering medications, and performing diagnostic procedures including lab work and electrocardiography. During the program the student gains experience in a physician's office or appropriate facility by participating in an externship. Clinical courses may be scheduled day, evening, and on weekends.

### Employment Opportunities:

Medical Assistants work primarily in outpatient settings, inclusive of clinics, physician's office, insurance companies, public and private hospitals, inpatient and outpatient facilities, as well as specialty practitioners, such as chiropractors, optometrists, and podiatrists in outpatient care centers, nursing and residential care facilities.

### Program Admission

Applicants must meet general admissions requirements, and also must:

1. Be at least 18 years of age prior to first MAS course.
2. Submit official documentation of an earned high school diploma, GED, or college degree.
3. Applicants who do not meet the regular admission requirements will be classified as either learning support or provisional status and must take the prescribed learning support courses to prepare for the core curriculum.
4. It is the student's responsibility to notify the Medical Assisting advisor the quarter he/she registers for the last of the 8 pre-requisite classes (listed in #5). This is accomplished by turning in the "**yellow program sheet**" to a Medical Assisting Advisor.
5. Upon successful completion (or transfer in) of ENG 1010, PSY 1010, BUS 1130, SCT 100, AHS 104, AHS 109, MAT 1012, and AHS 1011 with a "C" or better and a grade point average of 2.5 or higher, the student will be "program ready" and eligible for admission into the Medical Assisting program based on submission of "**yellow program sheet**", available classroom space, and available clinical sites. In the event that two or more

applicants complete requirements simultaneously, the latest program application date will determine placement on the list. Math courses are not transferable into the Medical Assisting program.

6. Withdrawal from any MAS program class constitutes withdrawal from the program for that quarter. If a student withdraws for any reason, the student may be allowed to re-enter a cohort class at the point he/she withdrew from the program, provided the student demonstrates proficiency. This courtesy is extended only once. Readmission into the Medical Assisting program following withdrawal or first time failure will be based on the following:

- \*Successful completion of written comprehensive examinations for each previously completed Medical Assisting course with a minimum competency of 80%;

- \*Successful completion of a comprehensive lab skills check off with a minimum of 85%.

Deficiencies will result in the student repeating course(s). Upon readmission into the Medical Assisting program, the student must complete additional requirements as deemed necessary by the program faculty. Readmission will be based on availability within the classroom setting and clinical sites. This courtesy is extended only once. Students who do not successfully complete the Medical Assisting program after two attempts, whether at Southern Crescent Technical College or at another college, will not be readmitted into the program.

7. Transferring Medical Assisting students from other technical colleges must make application and submit official transcripts to Griffin Technical College. Each Medical Assisting course listed in the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination as noted above in # 6 with the exception of MAS 108 and MAS 109. MAS 108 and MAS 109 are not transferrable into the Medical Assisting program.
8. Medical courses and some others have a transfer/readmittance life of five years. Withdrawn students or transfer-in students who desire admittance within five years must meet current admissions and curriculum requirements and will be admitted following the demonstration of competencies as noted above in #6, submission of a yellow program sheet, and classroom and clinical site availability.
9. Documentation of a physical and dental examination is turned in during the first MAS quarter with an accompanying drug screen and background check.

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms ..... \$200
- Equipment/supplies ..... \$50
- National Registry ..... varies – dependent on exam(s) taken
- Liability Insurance ..... \$11.50
- Medical/Dental ..... varies

- Background check/Drug screen....varies
- CPR .....\$5

**NOTE: Grading standards for Medical Assisting courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be maintained. Students who are unsuccessful after a second attempt at courses within the Medical Assisting curriculum will be advised to choose another program of study.**

**A student who has been convicted of a felony or misdemeanor may be admitted to the Medical Assisting program; however, such a conviction may prohibit a student from attending certain clinical sites and/or taking the Registry/Certification Examination. Documentation of satisfying the penalty of the felony must be presented to the National Boards with application. Permission to sit for the examination rests solely with the National Board. Permission to attend a clinical site rests solely with the clinical facility.**

**Related Programs of Study:**

- Business Administrative Technology Degree and Diploma
- Medical Coding Specialist Certificate
- Phlebotomy Technician Certificate
- Medical Language Specialist
- Medical Billing Clerk

**Curriculum**

Minimum credits required for graduation: **84**

**General Core 15**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
PSY	1010	Basic Psychology	5

**Occupational Core 69**

SCT	100	Introduction to Microcomputers	3
AHS	1011	Anatomy & Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Health Science	3
*BUS	1130	Document Processing	6
MAS	101	Legal Aspects of the Medical Office	3
MAS	103	Pharmacology	5
MAS	106	Medical Office Procedures	5
MAS	108	Medical Assisting Skills I	6
MAS	109	Medical Assisting Skills II	6
MAS	112	Human Diseases	5
MAS	117	Medical Assisting Externship	6
MAS	118	Medical Assisting Seminar	4
MAS	110	Medical Insurance Management	3
MAS	111	Administrative Practice Management	4
MAS	xxx	Electives	2

*\*Students enrolling in BUS 1130 are required to take a typing test indicating the ability to key at least 25 words per minute or enroll in BUS 1100*

# Networking Specialist CIN4

## Griffin Campus

### The Diploma Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates receive a diploma and are qualified for employment as computer programming specialist, website designers, or networking specialists.

#### Related Programs of Study:

- Networking Specialist Degree
- Computer Programming Degree
- Computer Programming Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- CISCO Network Specialist Certificate
- Microsoft Networking Service Technician Certificate
- Comp TIA A+ Certified Technician Preparation Certificate

## Curriculum

Minimum credits required for graduation: **90**

### General Core **18**

ENG	1010	Fundamentals of English I	5
ENG	1012	Fundamentals of English II	5
MAT	1013	Algebraic Concepts <b>OR</b>	5
MAT	1011	Business Mathematics	(5)
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **48**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	An Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN or WAN	(6)
CIS	122	Microcomputer Installation & Maintenance	7
CIS	xxx	Programming Language	7
CIS	xxx	Networking Elective Courses	9

### Specializations

Completion of one of the following specializations is required for graduation.

### Microsoft Windows **24**

CIS	2149	Implementing Microsoft Windows Prof.	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
CIS	xxxx	Microsoft MCSA elective	6

### CISCO **24**

*CIS	2321	Introduction to LAN and WAN	6
CIS	2322	Introduction to WANs and Routing	6
CIS	276	Advanced Routers and Switches	6
CIS	277	WAN Design	6

\*If student chose CIS 2321 instead of CIS 1140 under the "Occupational Core", the student must take another Networking Elective Course for this 6 hour requirement.

# Networking Specialist CIN3

## Griffin Campus

### The Associate Degree Program

This program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing. Technical areas covered include computer terminology and concepts; program design and development; systems analysis and design; database management; computer installation and maintenance; and networking. Program graduates receive an Associate of Applied Science degree and are qualified for employment as computer programming specialist, website designers, or networking specialists.

#### Related Programs of Study:

- Networking Specialist Diploma
- Computer Programming Degree
- Computer Programming Diploma
- Database Specialist Degree
- Database Specialist Diploma
- Internet Specialist-Web Applications and Services Development Degree
- Internet Specialist-Web Applications and Services Development Diploma
- Internet Specialist-Web Site Design Degree
- Internet Specialist-Web Site Design Diploma
- CISCO Network Specialist Certificate
- Microsoft Networking Service Technician Certificate
- Comp TIA A+ Certified Technician Preparation Certificate

### Curriculum

Minimum credits required for graduation: **102**

#### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology <b>OR</b>	5
SOC	1101	Introduction to Sociology <b>OR</b>	(5)
ECO	1101	Principles of Economics	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
XXX	xxx	General Core Elective	5

#### Occupational Core **48**

SCT	100	Introduction to Microcomputers	3
CIS	xxx	An Operating Systems Course	6
CIS	105	Program Design and Development	5
CIS	106	Computer Concepts	5
CIS	1140	Networking Fundamentals <b>OR</b>	6
CIS	2321	Introduction to LAN or WAN	(6)
CIS	122	Microcomputer Installation & Maintenance	7
CIS	xxx	Programming Language	7
CIS	xxx	Networking Elective Courses	9

#### Specializations

Completion of one of the following specializations is required for graduation.

#### Microsoft Windows **24**

CIS	2149	Implementing Microsoft Windows Prof.	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
CIS	xxx	Microsoft elective	6

#### CISCO **24**

*CIS	2321	Introduction to LAN and WAN	6
CIS	2322	Introduction to WANs and Routing	6
CIS	276	Advanced Routers and Switches	6
CIS	277	WAN Design	6

\*If student chose CIS 2321 instead of CIS 1140 under the "Occupational Core", the student must take another Networking Elective Course for this 6 hour requirement.

# Orthopaedic Technology ORT2

## Griffin Campus

### The Diploma Program

The Diploma program in Orthopaedic Technology is a sequence of courses that prepares students to work with orthopaedic surgeons to treat patients in a variety of health care environments. The diploma program provides the skills and knowledge needed to become a competent Orthopaedic Technologist performing the following services: routine office and departmental procedures and the ability to perform certain basic functions; adjusting and removing casts, splints, and braces; setting up, adjusting, and maintaining traction configurations; assisting with the care of acutely injured patients; and assisting the physician in the reduction and/or manipulation of orthopaedic injuries. Successful completion of the Orthopaedic Technology diploma program leads to eligibility for the National Board of Certified Orthopaedic Technologists certification exam.

This one year program is designed to prepare students to pass the National Board of Certified Orthopaedic Technologist Examination and obtain employment as an Orthopaedic Technologist in a variety of clinical environments.

### Diploma Admission Requirements

Applicants must meet general admission requirements and;

1. Must be at least 18 years of age.
2. Applicants who do not meet the test score requirements will be classified as either learning support or provisional status students and must take the prescribed learning support courses to prepare for the core curriculum.

### Diploma Program Requirements

1. The student must successfully complete (or transfer in) ENG 1010, MAT 1012, PSY 1010, AHS 1011, AHS 104, AHS 109 and SCT 100 with a minimum grade of "C" in conjunction with a 2.5 GPA. The following courses transfer only if taken within the last five years: AHS 1011 and AHS 104.
2. It will be the responsibility of the student to notify the Orthopaedic Technology Program advisor when all prerequisite core courses have been completed. Notification must be given by the last day of the quarter in which the courses are completed or transferred to the college.
3. In the event two or more students have the same program ready date, the date the student applied to the Orthopaedic Technology program will be used to determine the placement position.
4. Once the program begins each student will submit a 10 panel drug screen, the required background check, and a copy of his/her current CPR card.

Applicants that are accepted into the Orthopaedic Technology Program are accepted only as full-time day students, in which time the (ORT) courses last nine months. Once enrolled in the program, each student is required to perform 400 hours clinical rotation time and lift at least 50 pounds.

*Note: Grading standards for Orthopaedic Technology courses are very stringent. For students to progress to the next course of study a minimum grade of "C" must be earned in each Orthopaedic (ORT) course.*

### Readmission Requirements

If a student withdraws for any reason, the student will be allowed to re-enter a cohort class at the point in which he/she withdrew from the program. This courtesy is extended only once. Upon readmission into the Orthopaedic Technology program, the student must complete additional requirements as deemed necessary by the program faculty. Readmission will be based on availability within the classroom setting and clinical sites.

Approximate additional cost other than tuition, fees, and textbooks:

- Equipment supplies .....\$80
- Uniforms .....\$150
- Certification .....\$375
- Malpractice Insurance .....\$4

***NOTE: A student who has been convicted of a felony or misdemeanor may be admitted to the Orthopaedic Technology Program; however, such a conviction may prohibit a student from taking the National Board of Certification of Orthopaedic Technologists Examination. Documentation of satisfying the penalty of the conviction must be presented to the National Board of Certification of Orthopaedic Technologists. Permission to sit for the examination rests solely with the National Board of Certification of Orthopaedic Technologists.***

## Curriculum

Minimum credits required for graduation: **70**

### General Core **15**

ENG 1010 Fundamentals of English I 5  
MAT 1012 Foundations of Mathematics 5  
PSY 1010 Basic Psychology 5

### Occupational Core **55**

SCT 100 Introduction to Microcomputers 3  
AHS 1011 Anatomy and Physiology 5  
AHS 104 Introduction to Healthcare 3  
AHS 109 Medical Terminology for Allied Health Sciences 3  
ORT 101 Orthopaedic Anatomy and Physiology 5  
ORT 102 Orthopaedic Techniques I 5  
ORT 103 Introduction to Orthopaedic Surgical Techniques 5  
ORT 104 Advanced Orthopaedic Anatomy and Physiology 5  
ORT 105 Orthopaedic Techniques II 5  
ORT 111 Orthopaedic Technology Practicum I 4  
ORT 211 Orthopaedic Technology Practicum II 12



# Orthopaedic Technology ORT3

## Griffin Campus

### The Associate Degree Program

The Associate of Applied Science Degree in Orthopaedic Technology is a sequence of courses that prepares students to work with orthopaedic surgeons to treat patients in a variety of health care environments. The degree program provides the skills and knowledge needed to become a competent Orthopaedic Technologist performing the following services: routine office and departmental procedures and the ability to perform certain basic functions; adjusting and removing casts, splints, and braces; setting up, adjusting, and maintaining traction configurations; assisting with the care of acutely injured patients; and assisting the physician in the reduction and or manipulation of orthopaedic injuries. Successful completion of the Orthopaedic Technology degree program leads to eligibility for the National Board of Certified Orthopaedic Technologists certification exam.

This two year program is designed to prepare students to pass the National Board of Certified Orthopaedic Technologist Examination and obtain employment as an Orthopaedic Technologist in a variety of clinical environments.

### Associate Degree Admission Requirements

Applicants must meet general admission requirements and;

1. Must be at least 18 years of age.
2. Applicants who do not meet the test score requirements will be classified as either learning support or provisional status students and must take the prescribed learning support courses to prepare for the core curriculum.

### Associate Degree Program Requirements

1. The student must successfully complete (or transfer in) ENG 1101, ENG 1102 or HUM 1101, MAT 1111, PSY 1101, AHS 104, BIO 1111, BIO 2113, BIO 2114, and SCT 100 with a minimum grade of "C" in conjunction with a 2.5 GPA. The following courses transfer only if taken within the last five years: AHS 104, BIO 2113 and BIO 2114.
2. It will be the responsibility of the student to notify the Orthopaedic Technology Program advisor when all prerequisite core courses have been completed. Notification must be given by the last day of the quarter in which the courses are completed or transferred to the college.
3. In the event two or more students have the same program ready date, the date the student applied to the Orthopaedic Technology program will be used to determine the placement position.

4. Once the program begins each student will submit a 10 panel drug screen, the required background check, and a copy of his/her current CPR card.

Applicants that are accepted into the Orthopaedic Technology Program are accepted only as full-time day students, in which time the (ORT) courses last 9 months. Once enrolled in the program, each student is required to perform 400 hours clinical rotation time and lift at least 50 pounds.

*Note: Grading standards for Orthopaedic Technology courses are very stringent. For students to progress to the next course of study a minimum grade of "C" must be earned in each Orthopaedic (ORT) course.*

### Readmission Requirements

If a student withdraws for any reason, the student will be allowed to re-enter a cohort class at the point in which he/she withdrew from the program. This courtesy is extended only once. Upon readmission into the Orthopaedic Technology program, the student must complete additional requirements as deemed necessary by the program faculty. Readmission will be based on availability within the classroom setting and clinical sites.

Approximate additional cost other than tuition, fees, and textbooks:

- Equipment supplies.....\$80
- Uniforms.....\$150
- Certification.....\$375
- Malpractice Insurance.....\$4

***NOTE: A student who has been convicted of a felony or misdemeanor may be admitted to the Orthopaedic Technology Program; however, such a conviction may prohibit a student from taking the National Board of Certification of Orthopaedic Technologists Examination. Documentation of satisfying the penalty of the conviction must be presented to the National Board of Certification of Orthopaedic Technologists. Permission to sit for the examination rests solely with the National Board of Certification of Orthopaedic Technologists.***

## Curriculum

Minimum credits required for graduation: **90**

### General Core **25**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introduction to Psychology	5
MAT	1111	College Algebra	5

### Occupational Core **65**

BIO	1111	Biology I	5
BIO	2113	Anatomy and Physiology I	5
BIO	2114	Anatomy and Physiology II	5
SCT	100	Introduction to Microcomputers	3
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Health Science	3
ORT	101	Orthopaedic Anatomy and Physiology	5
ORT	102	Orthopaedic Techniques I	5
ORT	103	Introduction to Orthopaedic Surgical Techniques	5
ORT	104	Advanced Orthopaedic Anatomy and Physiology	5
ORT	105	Orthopaedic Techniques II	5
ORT	111	Orthopaedic Technology Practicum I	4
ORT	211	Orthopaedic Technology Practicum II	12

# Paralegal Studies PS02

## Griffin Campus

### The Diploma Program

The Paralegal Studies diploma program is a sequence of courses designed to prepare students for careers as paralegals. The general studies component of the curriculum is added to develop written, oral, and analytical skills and to provide a breadth to the curriculum in the areas of humanities, behavioral sciences, and mathematics. Program graduates are provided training in the areas of legal ethics, the court system, interviewing skills, real estate practice, civil and criminal litigation, trusts and estate practice and procedure, tort, and contract law. Particular emphasis is placed on developing the students written communications ability and on legal research skills. Special emphasis is given throughout the program to impress upon students the legal proscription against the unauthorized practice of law by any one who is not a licensed attorney. The high ethical duties attendant to the attorney-client relationship are also emphasized during the program of study and how paralegals are bound to maintain high ethical standards when assisting attorneys with the efficient and competent delivery of legal services to clients.

## Curriculum

Minimum credits required for graduation: **73**

### General Core **20**

ENG	1101	Composition & Rhetoric	5
MAT	1111	College Algebra	5
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5

### Occupational Core **53**

SCT	100	Introduction to Microcomputers	3
PLGL	1101	Introduction to Law and Ethics	5
PLGL	1102	Legal Research	5
PLGL	1103	Legal Writing	5
PLGL	1104	Family Law	5
PLGL	1112	Law Office Management	5
PLGL	1202	Bankruptcy/Debtor-Credit Relations <b>OR</b>	5
PLGL	1204	Health Care Law	(5)
PLGL	1222	Preparation for Legal Profession	5
XXX	xxx	Elective(s)	15

# Paralegal Studies PS03

## Griffin Campus

### The Associate Degree Program

The Paralegal Studies associate degree program is a sequence of courses designed to prepare students for careers as paralegals. The general studies component of the curriculum is added to develop written, oral, and analytical skills and to provide a breadth to the curriculum in the areas of humanities, behavioral sciences, and mathematics.

Program graduates are provided training in the areas of legal ethics, the court system, interviewing skills, real estate practice, civil and criminal litigation, trusts and estate practice and procedure, tort, and contract law. Particular emphasis is placed on developing the students written communications ability and on legal research skills. Special emphasis is given throughout the program to impress upon students the legal proscription against the unauthorized practice of law by any one who is not a licensed attorney. The high ethical duties attendant to the attorney-client relationship are also emphasized during the program of study and how paralegals are bound to maintain high ethical standards when assisting attorneys with the efficient and competent delivery of legal services to clients.

## Curriculum

Minimum credits required for graduation: **115**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition	5
SPC	1101	Public Speaking	5
ECO	1101	Principles of Economics <b>OR</b>	5
SOC	1101	Introduction of Sociology	(5)
PSY	1101	Introduction to Psychology	5
MAT	1111	College Algebra	5

### Occupational Core **85**

SCT	100	Introduction to Microcomputers	3
PLGL	1101	Introduction to Law and Ethics	5
PLGL	1102	Legal Research	5
PLGL	1103	Legal Writing	5
PLGL	1104	Family Law	5
PLGL	1105	Real Estate Law	5
PLGL	1108	Criminal Law and Criminal Procedure	5
PLGL	1109	Civil Litigation	5
PLGL	1110	Wills, Trusts, Probate, and Administration	5
PLGL	1111	Tort Law	5
PLGL	1116	Contracts and Commercial Law	5
PLGL	2222	Paralegal O.B.I.	12
XXX	xxx	Elective(s)	10

#### *Choose 2 of the following 3 courses:*

PLGL	1112	Law Office Management	5
PLGL	1115	Business Organizations	5
PLGL	2205	Advanced Research and Writing	5

# Paramedic Technology EM02

## Griffin Campus

### The Diploma Program

The Paramedic Technology diploma program is a program that prepares students for employment in paramedic positions in today's health services field. The Paramedic Technology diploma program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program provides opportunities to upgrade present knowledge and skills from the basic EMT level to retrain as a paramedic. Graduates of the program receive a Paramedic Technology diploma and are eligible to sit for the paramedic certification test.

### Diploma Admission Requirements

Applicants must meet general admissions requirements and also must:

1. Be at least 18 years of age.
2. Present official documentation of a current Emergency Medical Technician (EMT) certification.
3. Students must successfully complete all specific technical courses (EMS 126-215 and AHS 1011) with a grade of C or better in order to meet the requirements for certification testing and subsequent licensure.

### Related Programs of Study:

- Paramedic Technology Degree
- Emergency Medical Technician-Basic Certificate
- Emergency Medical Technician-Intermediate Certificate

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms.....\$150
- Liability insurance.....\$46.50

Other required out-services:

- National Registry.....\$250
- Immunizations/physical exam.....varies

Criminal Background & Drug Screen.....\$90

Curriculum		
Minimum credits required for graduation:		<b>84</b>
<b>General Core</b>		<b>15</b>
ENG 1010 Fundamentals of English I		5
MAT 1012 Foundations of Mathematics		5
PSY 1010 Basic Psychology		5
<b>Occupational Core</b>		<b>69</b>
SCT 100 Introduction to Microcomputers		3
AHS 1011 Anatomy and Physiology		5
EMS 126 Introduction to the Paramedic Profession		3
EMS 127 Patient Assessment		4
EMS 128 Applied Physiology and Pathophysiology		3
EMS 129 Pharmacology		4
EMS 130 Respiratory Emergencies		5
EMS 131 Trauma		5
EMS 132 Cardiology I		5
EMS 133 Cardiology II		4
EMS 134 Medical Emergencies		5
EMS 135 Maternal/Pediatric Emergencies		5
EMS 136 Special Patients		2
EMS 210 Clinical Applications for the EMT-Paramedic I		2
EMS 211 Clinical Applications for the EMT-Paramedic II		2
EMS 212 Clinical Applications for the EMT-Paramedic III		2
EMS 213 Clinical Applications for the EMT-Paramedic IV		2
EMS 214 Clinical Applications for the EMT-Paramedic V		2
EMS 215 Clinical Applications for the EMT-Paramedic VI		1
EMS 201 Summative Evaluations		5

# Paramedic Technology EM03

## Griffin Campus

### The Associate Degree Program

The Paramedic Technology degree program is a program that prepares students for employment in paramedic positions in today's health services field. The Paramedic Technology degree program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program provides opportunities to upgrade present knowledge and skills from the basic EMT level to retrain as a paramedic. Graduates of the program receive a Paramedic Technology degree and are eligible to sit for the paramedic certification test.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements and also must:

1. Be at least 18 years of age.
2. Present official documentation of a current Emergency Medical Technician (EMT) certification.
3. Students must successfully complete all specific technical courses (EMS 126-215, BIO 2113 and BIO 2114) with a grade of C or better in order to meet the requirements for certification testing and subsequent licensure.

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms ..... \$150
- Liability insurance ..... \$46.50

Other required out-services:

- National Registry ..... \$250
- Immunizations/physical exam ..... varies
- Criminal Background & Drug Screen ..... \$90

### Related Programs of Study:

- Paramedic Technology Diploma
- Emergency Medical Technician-Basic Certificate
- Emergency Medical Technician-Intermediate Certificate

Curriculum  
Minimum credits required for graduation: **104**

**General Core** **30**  
ENG 1101 Composition & Rhetoric 5

ENG 1102 Literature & Composition **OR** 5  
HUM 1101 Introduction to Humanities **OR** (5)  
ART 1101 Art Appreciation **OR** (5)  
MUS 1101 Music Appreciation (5)

SPC 1101 Public Speaking 5

MAT 1111 College Algebra **OR** 5  
MAT 1100 Quantitative Skills & Reasoning **OR** (5)  
MAT 1101 Mathematical Modeling (5)

*Choose 2 of the following 3 courses:*

PSY 1101 Introduction to Psychology **AND/OR** 5  
ECO 1101 Principles of Economics **AND/OR** 5  
SOC 1101 Introduction to Sociology (5)

**Occupational Core** **74**

SCT 100 Introduction to Microcomputers 3  
BIO 2113 Anatomy and Physiology I 5  
BIO 2114 Anatomy and Physiology II 5  
EMS 126 Introduction to the Paramedic Profession 3  
EMS 127 Patient Assessment 4  
EMS 128 Applied Physiology and Pathophysiology 3  
EMS 129 Pharmacology 4  
EMS 130 Respiratory Emergencies 5  
EMS 131 Trauma 5  
EMS 132 Cardiology I 5  
EMS 133 Cardiology II 4  
EMS 134 Medical Emergencies 5  
EMS 135 Maternal/Pediatric Emergencies 5  
EMS 136 Special Patients 2  
EMS 210 Clinical Applications for the EMT-Paramedic I 2  
EMS 211 Clinical Applications for the EMT-Paramedic II 2  
EMS 212 Clinical Applications for the EMT-Paramedic III 2  
EMS 213 Clinical Applications for the EMT-Paramedic IV 2  
EMS 214 Clinical Applications for the EMT-Paramedic V 2  
EMS 215 Clinical Applications for the EMT-Paramedic VI 1  
EMS 201 Summative Evaluations 5

*Note: Individuals who are currently licensed as paramedics who wish to pursue the AAS degree may request experiential credit for some EMS courses in the curriculum except EMS 201. However, all students must meet the College's residency requirement in order for the College to award the degree.*

# Pharmacy Technology PH02

## Griffin Campus

### The Diploma Program

The Pharmacy Technology program is a sequence of courses that prepares students for careers in the pharmacy field. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. Pharmacy Technology program graduates are prepared to function as pharmacy technicians in positions requiring preparation of medications according to prescriptions under supervision of a pharmacist. Program graduates are to be competent in the general areas of communications, math, interpersonal relations, and computer literacy. Graduates are also to be competent to perform basic occupational functions including pouring, weighing, or measuring dosages; grinding, heating, filtering, dissolving, and mixing liquid or soluble drugs and chemicals; procuring, storing, and issuing pharmaceutical materials and supplies; and maintaining files and records. Graduates of the program receive a Pharmacy Technology diploma which qualifies them as pharmacy technicians. Graduates are strongly encouraged to take the "Pharmacy Technician Certification Examination" to be recognized nationally as a Certified Pharmacy Technician.

### Diploma Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Be at least 18 years of age.
2. Present official documentation of an earned high school diploma, GED, or college degree.
3. Present acceptable ASSET, COMPASS, SAT, or ACT scores taken within the last five years or transfer of program level English and math from a regionally accredited college or university with a grade of C or better.
4. Upon successful completion (or transfer in) of ENG 1010, PSY 1010, MAT 1012, AHS 109, SCT 100, AHS 104 and AHS 1011 with a minimum grade of "C" in each course and a grade point average (GPA) of 2.0 or higher, the student will be "program ready" and eligible for admission into the Pharmacy Technology program. Medical courses transfer only if taken within the last five years. **Students will be placed on a list in the order of their program ready date.**
5. It will be the responsibility of the student to notify the *Pharmacy Technology Advisor* when all core courses have been completed. With this notification, the student will be placed on the Pharmacy Technology program ready list and will be eligible for admission into the program. Once students are placed on the program ready list, they will be registered in the Pharmacy Technology courses based upon available classroom space. In the event two or more students have the same program ready date, the date students applied to the Pharmacy Technology

program will be used to determine the placement position on the program ready list.

6. If a student changes his/her declared major from Pharmacy Technology to a different diploma or degree program, and then back to Pharmacy Technology, the latest program application date will be used to determine placement.

**Note: Grading standards for Pharmacy Technology courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be maintained. Students who are unsuccessful after a second attempt at courses within the Pharmacy Technology curriculum will be advised to choose another program of study.**

### Readmission Policy

Readmission into the Pharmacy Technology program following voluntary withdrawal will be based on the following:

- Successfully complete written comprehensive examinations for each previously completed Pharmacy Technology course and prove competency with an 80 percent or greater result.
- Successfully complete lab skill check offs.

**Deficiencies will result in the student repeating appropriate course/courses. Readmission will be based on available space within the classrooms and clinical sites.**

Approximate additional costs other than tuition, fees, and textbooks required for the clinical portion of the program:

- Uniforms .....\$110
  - Liability insurance .....\$10
  - PTCB Exam (certification exam)..... \$130
- \*Advantage Students is a company required by Hospitals in the service area used to gather this information.

Other required out-services/medical fees:

- Physical exam .....varies
- Varicella Vaccine or Varicella Titer varies
- Hepatitis vaccine (optional) .....\$135
- Drug Screen & Background Check (Advantage Students)\* .....\$80
- TB Skin Test .....\$15

### Transfer Policy for Diploma Program

Transferring Pharmacy Technology students from other technical colleges must apply and submit official transcripts. Each Pharmacy Technology course listed on the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination. A score of 80 percent must be attained to demonstrate proficiency in all transferred pharmacy courses. **NOTE: A student who has been convicted of a felony or misdemeanor may be admitted to the Pharmacy Technology program, but such a conviction may prohibit one from participating in the clinical portion of the program and/or from taking the Pharmacy Technician Certification Exam.**

### Related Programs of Study:

- Pharmacy Technology Degree

## Curriculum

Minimum credits required for graduation: **79**

### General Core **15**

ENG 1010 Fundamentals of English I 5

MAT 1012 Foundations of Mathematics 5

PSY 1010 Basic Psychology 5

### Occupational Core **64**

SCT 100 Introduction to Microcomputers 3

AHS 1011 Anatomy and Physiology 5

AHS 1015 Basic Inorganic Chemistry 4

AHS 104 Introduction to Healthcare 3

AHS 109 Medical Terminology 3

PHR 1000 Pharmaceutical Calculations 5

PHR 1010 Pharmacy Technology Fundamentals 5

PHR 1020 Principles of Dispensing Medications 6

PHR 1030 Principles of Sterile Medication Preparation 6

PHR 1040 Pharmacology 5

PHR 1050 Pharmacy Technology Practicum 7

PHR 2060 Advanced Pharmacy Technology Principles 5

PHR 2070 Advanced Pharmacy Technology Practicum 7



# Pharmacy Technology PH03

## Griffin Campus

### The Associate Degree Program

The Pharmacy Technology Associate Degree program is a sequence of courses that prepares students for careers in the pharmacy field. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. Pharmacy Technology associate degree program graduates are prepared to function as pharmacy technicians in positions requiring preparations of medications according to prescriptions under supervision of a pharmacist. Program graduates are to be competent in the general areas of humanities or fine arts, social or behavioral sciences, natural sciences or mathematics, and computer literacy. Program graduates are also to be competent to perform basic occupational functions including pouring, weighing, or measuring dosages; grinding, heating, filtering, dissolving, and mixing liquid or soluble drugs and chemicals; procuring, storing, and issuing pharmaceutical materials and supplies; and maintaining files and records. Program graduates receive a Pharmacy Technology Associate of Applied Science degree which qualifies them as pharmacy technicians. Graduates are strongly encouraged to take the "Pharmacy Technician Certification Examination" to be recognized nationally as a Certified Pharmacy Technician.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Be at least 18 years of age.
2. Present official documentation of an earned high school diploma, GED, or college degree.
3. Present acceptable ASSET, COMPASS, SAT, or ACT scores taken within the last five years or transfer of program level English and math from a regionally accredited college or university with a grade of C or better.
4. Upon successful completion (or transfer in) of ENG 1101, ENG 1102 or HUM 1101, SPC 1101, ECO 1101 or ECO 2105, PSY 1101, MAT 1111, AHS 104, AHS 109, SCT 100, BIO 2113, and BIO 2114 with a minimum grade of "C" in each course and a grade point average (GPA) of 2.0 or higher, the student will be "program ready" and eligible for admission into the Pharmacy Technology program. Medical courses transfer only if taken within the last five years. **Students will be placed on a list in the order of their program ready date.**
5. It will be the responsibility of the student to notify the **Pharmacy Technology Advisor** when all core courses have been completed. With this notification, the student will be placed on the Pharmacy Technology program ready list and will be eligible for admission into the program. Once students are placed on the program ready list, they

will be registered in the Pharmacy Technology courses based upon available classroom space. In the event two or more students have the same program ready date, the date students applied to the Pharmacy Technology program will be used to determine the placement position on the program ready list.

6. If a student changes his/her declared major from Pharmacy Technology to a different diploma or degree program, and then back to Pharmacy Technology, the latest program application date will be used to determine placement.

**Note: Grading standards for Pharmacy Technology courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be maintained. Students who are unsuccessful after a second attempt at courses within the Pharmacy Technology curriculum will be advised to choose another program of study.**

### Readmission Policy

Readmission into the Pharmacy Technology program following voluntary withdrawal will be based on the following:

- Successfully complete written comprehensive examinations for each previously completed Pharmacy Technology course and prove competency with an 80 percent or greater result.
- Successfully complete lab skill check offs.

**Deficiencies will result in the student repeating appropriate course/courses. Readmission will be based on available space within the classrooms and clinical sites.**

Approximate additional costs other than tuition, fees, and textbooks required for the clinical portion of the program:

- Uniforms .....\$110
- Liability insurance .....\$10
- PTCB Exam (certification exam)..... \$130  
\*Advantage Students is a company required by Hospitals in the service area used to gather this information.

Other required out-services/medical fees:

- Physical exam .....varies
- Varicella Vaccine or Varicella Titer varies
- Hepatitis vaccine (optional) .....\$135
- Drug Screen & Background Check (Advantage Students)\* .....\$80
- TB Skin Test .....\$15

### Transfer Policy for Associate Degree Program

Transferring Pharmacy Technology students from other technical colleges must apply and submit official transcripts. Each Pharmacy Technology course listed on the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination. A score of 80 percent must be attained to demonstrate proficiency in all transferred pharmacy courses.

**NOTE: A student who has been convicted of a felony or misdemeanor may be admitted to the Pharmacy Technology program, but such a conviction may prohibit one from participating in the clinical portion of the program and/or from taking the Pharmacy Technician Certificate Exam.**

**Related Programs of Study:**

- Pharmacy Technology Diploma

<b>Curriculum</b>		
Minimum credits required for graduation:		<b>99</b>
<b>General Core</b>		<b>30</b>
ENG 1101 Composition & Rhetoric		5
ENG 1102 Literature & Composition <b>OR</b>		5
HUM 1101 Introduction to Humanities		(5)
SPC 1101 Public Speaking		5
ECO 1101 Principles of Economics <b>OR</b>		5
ECO 2105 Principles of Macroeconomics		(5)
PSY 1101 Introduction to Psychology		5
MAT 1111 College Algebra		5
<b>Occupational Core</b>		<b>69</b>
SCT 100 Introduction to Microcomputers		3
AHS 1015 Basic Inorganic Chemistry		4
AHS 104 Introduction to Healthcare		3
AHS 109 Medical Terminology for Health Science		3
BIO 2113 Anatomy & Physiology I		5
BIO 2114 Anatomy & Physiology II		5
PHR 1000 Pharmaceutical Calculations		5
PHR 1010 Pharmacy Technology Fundamentals		5
PHR 1020 Principles of Dispensing Medications		6
PHR 1030 Principles of Sterile Medication Preparation		6
PHR 1040 Pharmacology		5
PHR 1050 Pharmacy Technology Practicum		7
PHR 2060 Advanced Pharmacy Technology Principles		5
PHR 2070 Advanced Pharmacy Technology Practicum		7

# Plumbing

# PL02

## Flint River Campus

### The Diploma Program

The Plumbing program is a sequence of courses that prepares students for careers in plumbing and related fields. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of plumbing theory and practical application necessary for successful employment. Program graduates receive a Plumbing diploma and have the qualification of an apprentice plumber.

### Related Programs of Study:

- Residential Plumber Certificate

## Curriculum

Minimum credits required for graduation: **77**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **64**

SCT	100	Introduction to Microcomputers	3
CFC	100	Safety	2

CFC	101	Intro to Construction <b>OR</b>	2
PLB	100	Intro to Construction and the Pipe Trades	(2)

CAR	105	Print Reading <b>OR</b>	5
PLB	116	Plumbing Drawings I <b>AND</b>	(3)
PLB	117	Plumbing Drawings II	(2)

PLB	120	Pipes, Fittings & Valves I	2
PLB	122	Drainage Systems I	2
PLB	124	Water Supply Systems I	2
PLB	126	Plumbing Fixtures and Appliances I	2
PLB	128	Gas Piping, Venting, and Appliances I	3
PLB	130	Pipes, Fittings & Valves II	2
PLB	132	Drainage Systems II	3
PLB	134	Water Supply Systems II	3
PLB	136	Plumbing Fixtures and Appliances II	3
PLB	138	Gas Piping, Venting, and Appliances II	2
PLB	140	Pipe Offsets and Measurements	1
PLB	142	Special Plumbing Systems	5
PLB	144	Plumbing Service	5
PLB	146	Plumbing Codes	5
XXX	xxx	Occupational Electives	*12

### Choose 12 credit hours from the following courses.

PLB	107	Physical Science and Mechanics for the Pipe Trades	5
PLB	148	Plumbing Internship	2-12
PLB	158	Advanced Drawing and Plan Reading	5
WLD	133	Metal Welding and Cutting Techniques	3
PLB	150	Backflow Prevention and Cross-Connection Control Certification	5
PLB	152	Advanced Plumbing Code Applications	5
PLB	154	Medical Gas Certification	5

## Practical Nursing PN04

### The Diploma Program

The Practical Nursing program is a full-time program designed to prepare a student to take the National Council of License Examination for Practical Nurses (NCLEX-PN) for licensure as a practical nurse. The program prepares students to give competent nursing care in a variety of clinical environments. Nursing theory and practice are integrated under the guidance of the nursing educator.

Upon admission to the College, Practical Nursing students are placed in the Health Care Assistant certificate while working on program admission requirements.

The curriculum includes instruction in the areas of anatomy and physiology, drug calculations, administration of medications, nutrition and diet therapy, nursing ethics, patient care in a variety of fields and settings, patient wellness and prevention of illnesses.

### Diploma Admission Requirements

Applicants must meet general admissions requirements as well as the following minimum requirements. Meeting minimum requirements does not guarantee admission into the program:

1. Be at least 17 years old.
2. Successfully complete (or transfer in) ENG 1010, PSY 1010, AHS 104, AHS 109, AHS 103 and SCT 100 with a minimum grade of "C" in each course, and MAT 1012 and AHS 1101 with a minimum grade of "B" in each course.
3. Have maintained a cumulative GPA of 3.0 for core classes. (GPA includes each attempt at core classes, including transferred in classes.)
4. A minimum of 50 percent of program must be completed on the campus intended for graduation.
5. Have completed the nationalized admission testing for nursing and achieved a minimum score as designated by the program faculty.
6. Have completed ASSET, COMPASS, ACT or SAT testing.

### Candidate selection

Selection of candidates for each practical nursing class will be based on a competitive admissions process. The following criteria will be used:

1. Overall GPA for core classes.
2. Nationalized test score
3. Program application date

**Note:** If a student changes his/her declared major from Practical Nursing to a different diploma or degree program, and then back to Practical Nursing, the latest program application date will be used to determine placement.

Final acceptance into the program is based upon completion of a drug calculation competency exam with a score of 80 percent or higher. No more than two attempts will be allowed.

Once accepted into the Practical Nursing program, the student must complete all health requirements as described by participating clinical sites, including, but not limited to, criminal background check, drug screening, and health screening.

There is no waiting list for the program. Applicants who are not selected must notify the Practical Nursing staff by submitting another notification card if they wish to compete for admission into the next cohort class. Grading standards for Practical Nursing courses are very stringent. Students must maintain a minimum grade of "C" for progression to the next course of study.

### Readmission Policy

Readmission into the Practical Nursing program following withdrawal or first time failure will be based on the following:

- Proof of previous program course completion of less than 6 months.
- Successfully complete written comprehensive examinations for each previously completed Practical Nursing course with a minimum of 80 percent.
- Successfully complete drug calculations examination with a minimum competency of 90 percent.
- Successfully complete lab skill check offs. Deficiencies will result in the student repeating appropriate course/courses. Readmission will be based on available space within the classrooms and clinical sites. Students who do not successfully complete the Practical Nursing program after two attempts, whether at this college or at another college, will not be readmitted into the program.
- A student must complete another criminal background check, drug screen and health screen as designated by participating clinical sites.

## Transfer Policy

Transferring Practical Nursing students from other technical colleges must file an application at the Griffin or Flint campus and submit all official transcripts. Each Practical Nursing course listed on the transferring student's official transcript is considered for transfer credit after the prospective student has demonstrated proficiency by examination with a score of 80 percent.

## Additional Costs

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies ..... \$120
- Uniforms ..... \$225
- Licensing Exam ..... \$240
- Liability Insurance ..... \$16
- Medical Fees ..... \$300
- CPR ..... \$5
- Pinning Ceremony ..... \$50

## Curriculum

Minimum credits required for graduation: **95**

### General Core **15**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
PSY	1010	Basic Psychology	5

### Occupational Core **19**

AHS	1011	Anatomy & Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Health Science	3
AHS	103	Nutrition & Diet Therapy	2
SCT	100	Introduction to Microcomputers	3
AHS	102	Drug Calculation & Administration	3

### Program Courses **61**

NSG	110	Nursing Fundamentals	10
NPT	112	Medical Surgical Nursing Practicum I	7
NPT	113	Medical Surgical Nursing Practicum II	7
NPT	212	Pediatric Nursing Practicum	2
NPT	213	Obstetrical Nursing Practicum	3
NPT	215	Nursing Leadership Practicum	2
NSG	112	Medical Surgical Nursing I	9
NSG	113	Medical Surgical Nursing II	9
NSG	212	Pediatric Nursing	5
NSG	213	Obstetrical Nursing	5
NSG	215	Nursing Leadership	2

# Printing and Graphics Technology PG02

## Griffin Campus

### The Diploma Program

The Printing and Graphics Technology diploma program is designed to provide educational opportunities for students that will enable them to obtain knowledge, skills, and attitudes necessary to succeed in the field of printing and graphics. The Printing and Graphics program is designed to meet the increasing demands for employment opportunities in areas of prepress that include working with electronic files and computer graphics.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$100 and up

### Related Programs of Study:

- Printing and Graphics Technology Degree
- Basic Publication Design Certificate

## Curriculum

Minimum credits required for graduation: **84**

### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

### Occupational Core **29**

SCT	100	Introduction to Microcomputers	3
PGT	101	Introduction to the Printing Industry	8
PGT	110	Digital Imaging Practicum/Internship	12
BUS	1130	Document Processing	6

### Specializations

Completion of one of the following specializations is required for graduation.

### Printing Technology **42**

PGT	102	Basic Publications Design	6
PGT	115	Image Output and Pre-Flight	6
PGT	128	Black & White Photo Manipulation & Scanning	6
PGT	111	Basic Press Operations I	8
XXX	xxx	Electives	16

### Prepress Technology **42**

PGT	102	Basic Publications Design	6
PGT	103	Advanced Publications Design	6
PGT	115	Image Output and Pre-Flight	6
PGT	128	Black & White Photo Manipulation & Scanning	6
PGT	107	Color Photo Manipulation and Scanning	6
PGT	109	Color Digital Production	6
XXX	xxx	Electives	6

# Printing and Graphics Technology PG03

## Griffin Campus

### The Associate Degree Program

The Printing and Graphics Technology degree program is designed to provide educational opportunities for students that will enable them to obtain knowledge, skills, and attitudes necessary to succeed in the field of printing and graphics. The Printing and Graphics program is designed to meet the increasing demands for employment opportunities in areas of prepress that include working with electronic files and computer graphics.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$100 and up

### Related Programs of Study:

- Printing and Graphics Technology Diploma
- Basic Publication Design Certificate

## Curriculum

Minimum credits required for graduation: **101**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
ECO	1101	Principles of Economics	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)

### Occupational Core **29**

SCT	100	Introduction to Microcomputers	3
PGT	101	Introduction to the Printing Industry	8
PGT	110	Digital Imaging Practicum/Internship	12
BUS	1130	Document Processing	6

### Specializations

Completion of one of the following specializations is required for graduation.

### Printing Technology **42**

PGT	102	Basic Publications Design	6
PGT	115	Image Output and Pre-Flight	6
PGT	128	Black and White Photo Manipulation	6
PGT	111	Basic Press Operations I	8
XXX	xxx	Electives	16

### Prepress Technology **42**

PGT	102	Basic Publications Design	6
PGT	103	Advanced Publications Design	6
PGT	115	Image Output and Pre-Flight	6
PGT	128	Black and White Photo Manipulation	6
PGT	107	Color Photo Manipulation and Scanning	6
PGT	109	Color Digital Production	6
XXX	xxx	Electives	6

# Radiologic Technology RT03

## Griffin Campus

### The Associate Degree Program

This program is designed to prepare students to pass the examination given by the American Registry of Radiologic Technologists (ARRT), obtain employment as a Registered Technologist R.T. (R), and to function as Radiologic Technologists in a variety of clinical environments.

Upon admission to the College, students desiring the Radiologic Technology Program will be placed in the Health Care Science certificate while working on program admission requirements.

Acceptance into the Radiologic Program is via a competitive selection process based primarily on grade point average of prerequisite courses and the score on the PSB Health Occupations Aptitude Examination.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements as well as the following minimum requirements. Meeting minimum requirements does not guarantee admission into the program.

1. Be at least 18 years of age.
2. The student must successfully complete (or transfer in) of AHS 104, BIO 2113, BIO 2114, MAT 1111, ENG 1101, ENG 1102 or HUM 1101, PSY 1101, SPC 1101, and SCT 100 with a minimum grade of "C" in conjunction with a 3.0 GPA. All of the courses must be completed by the end of winter quarter to be considered for the summer quarter entrance into the program. The following courses can only be used (or transferred in) if taken within the last five (5) years: AHS 104, BIO 2113, BIO 2114, and SCT 100.
3. All students must submit test scores from the Psychological Services Bureau (PSB) Health Occupations Aptitude Examination with a minimum score of 225. This test may be attempted two times only. Students will need to take the examination at a PSB testing center and submit official results to the college's admissions office.
4. The student will be responsible for notifying Radiologic Technology Program faculty by turning in a program ready card once all program entrance requirements are met. This card may be submitted at any time during the quarter in which the student is completing the last of the required core classes and if the PSB exam results have been submitted. All program ready cards must be submitted no later than the last day of the winter quarter. Program faculty will not accept late submissions of program ready cards. If transfer credits are involved, the student will be responsible for making sure that all of the transcripts are into the college by this deadline. If the

student is not accepted and wishes to re-compete for the following year, the student must resubmit a new program ready card. Program ready cards are available in Admission and Academic Affairs. There will **NOT** be a waiting list.

Should there be more qualified students than available spaces, candidates are admitted based on the grade point average for the courses listed above plus the score on the PSB Health Occupations Aptitude Examination. The grade point average (4.00 scale) will be converted to a 400 point scale and added to the score of the Aptitude test (maximum score 365). Seats are filled from the highest score downward until the maximum enrollment total is reached. The student's program application date will break any tie. Application date is defined as the date when the student applied to the College for the program or the date on the change of enrollment form to Radiologic Technology. All applicants will be notified of program status by mail on or before May 31st. Applicants are accepted into the Radiologic Technology Program summer quarter and are accepted only as full-time day students. Once enrolled in the program, each student is required to complete an evening clinical rotation for a minimum of one quarter. Each student is also required to complete an online drug screen/background check through Advantage Students and submit a current copy of an American Heart Healthcare Provider CPR certification.

**NOTE: Grading standards for Radiologic Technology courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be achieved in every RAD course. Students must maintain a minimum GPA of 3.0 to remain in the program.**

### Readmission Policy

If a student withdraws for any reason, the student may be allowed to re-enter the program the following year at the point in which the student withdrew from the program unless the student withdraws prior to the completion of the first quarter of the program. These students must re-compete for program entrance. This courtesy is extended only once. Upon readmission into the Radiologic Technology Program, the student must complete additional requirements as deemed necessary by the program faculty. Readmission will be based on available space within the classroom and clinical sites. For more information, please refer to the Radiologic Technology Program Policy Manual.

Approximate additional costs other than tuition, fees, and textbooks:

• Equipment/supplies .....	\$100
• Uniforms .....	\$300
• Liability Insurance .....	\$28
• Review Seminar (optional) .....	\$175
• Registry Application fee .....	\$200
• Medical Fees (approx.) .....	\$400

**Note: A student who has been convicted of a felony or misdemeanor may be accepted into the Radiologic Technology Program, however, such a conviction may cause a student to be ineligible to take the national examination and**



*from rotating through some or all of the program's clinical affiliates. Permission to sit for the national examination rests solely with the American Registry of Radiologic Technologists (ARRT). If a student is concerned about qualifying to take the AART examination because of the student's record, the student may choose to prequalify by visiting the ARRT website, [www.arrt.org](http://www.arrt.org), before starting the core classes or the program. The student should also notify the program faculty prior to starting the program to ensure there are clinical sites that will allow the student to rotate through to meet clinical requirements.*

#### Frequently Asked Questions

1. How many spaces are available? 22
2. How many times per year are students accepted into the program? One
3. What is a typical schedule? M - F 8 a.m. to 3:30 p.m., with some variations
4. What are the clinical sites? Spalding Regional Medical Center, Upson Regional Medical Center, Piedmont Newnan Hospital, Piedmont Fayette Hospital, Henry Medical Center, Children's Healthcare of Atlanta Mt. Zion, Southern Regional Medical Center, South Fulton Medical Center, Saint Joseph's Hospital, Summit Healthplex
5. How are clinical site assignments determined? Clinical sites are randomly assigned by the clinical coordinator
6. How long is the program? Two years from when the student starts the actual program

#### Curriculum

Minimum credits required for graduation: **138**

#### General Core **35**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
BIO	2113	Anatomy & Physiology I	5
BIO	2114	Anatomy & Physiology II	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)

#### Occupational Core **103**

AHS	104	Introduction to Health Care	3
SCT	100	Introduction to Microcomputers	3
RAD	101	Introduction to Radiography	5
RAD	103	Body, Truck, Upper Extremity Procedures	3
RAD	106	Lower Extremity & Spine Procedures	3
RAD	107	Principles of Radiographic Exposure I	4
RAD	109	Contrast Procedures III	3
RAD	113	Cranium Procedures	2
RAD	123	Radiologic Science	5
RAD	132	Clinical Radiography I	5
RAD	133	Clinical Radiography II	7
RAD	116	Principles of Radiographic Exposure II	3
RAD	117	Radiographic Imaging Equipment	4
RAD	119	Radiologic Pathology & Medical Terminology	3
RAD	120	Principles of Radiation Biology & Protection	5
RAD	126	Radiologic Technology Review	4
RAD	134	Clinical Radiography III	7
RAD	135	Clinical Radiography IV	7
RAD	136	Clinical Radiography V	7
RAD	137	Clinical Radiography VI	10
RAD	138	Clinical Radiography VII	10

# Respiratory Care Technology RE03

## Griffin Campus

### The Associate Degree Program

The Associate of Applied Science degree in Respiratory Care Technology is a sequence of courses that prepares students to assist physicians in the evaluation, diagnosis, and treatment of patients with respiratory, cardiac, and renal dysfunction. This program offers students a variety of clinical opportunities to assist in the management of patients ranging in age from newborn to elderly. Respiratory offers the student clinical accessibility to patients with such conditions as injury due to trauma, infectious diseases, congenital anomalies, acquired lung disease, renal failure, distressed newborns, and many more categories. Graduates are eligible to sit for the National Board of Respiratory Care entrance level examination and the advanced practitioner's examination.

Upon admission to the College students desiring the Respiratory Care Technology program as their major will be placed in the Health Care Science Certificate while working on program admission requirements.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements, and must also :

1. Be at least 18 years of age.
2. Upon successful completion (or transfer in) of ENG 1101, ENG 1102 or HUM 1101, PSY 1101, SPC 1101, CHM 1111, MAT 1111, PHY 1110, BIO 2113, B IO 2114, BIO 2117, and SCT 100 with a minimum grade of "C" in each course and a GPA of 2.5 or higher, the student will be "program ready", and eligible for admission into the Respiratory Care Technology program. Students will be placed on a program ready list in the order of their program ready date. Students are required to submit a Program Ready Card to a Respiratory Care Advisor. Applicants will be accepted into the RTT program summer quarter. Medical and biological science courses transfer only if taken within the last five years.

Applicants are accepted into the Respiratory Care Technology program for summer quarter. Applicants are accepted as full-time day students only.

### Advanced Standing Program

Students that have earned the CRT (Entry level Respiratory Certification) will have demonstrated mastery of the following major courses: RTT 111, RTT 112, RTT 113, RTT 209, RTT 210, RTT 211, RTT 212, RTT, 213, RTT 214, RTT 215, RTT 216, RTT 218, RTT 219, and RTT 227. Due to their advanced standing, these students will be admitted into the Respiratory Care Technology program and will take (or transfer in) the 11

core courses, and take RTT 193 while the regular standing students are taking their major courses. In the final quarter, advanced standing students will take RTT 217 and RTT 222 to graduate. 25 hours are needed to obtain the Associate of Applied Science Degree.

### Transfer Policy

In the event of a transfer from another Respiratory Care program, a letter of recommendation will be required. After review and approval of the core classes transferred and the letter of recommendation, the student may be accepted into the program. The student must test out of any transferred RTT classes by passing the final exam for each course transferred. If a passing score of "70" is not met, the student must then take the appropriate course and pass with a score of "70". Admissions will have the final decision over any courses transferred in.

### Readmission Policy

In the event a student fails to meet the minimum required grade of "C" in any specific RTT course, the student may no longer continue in the program. The student can re-apply to the program one time only, and if there is a waiting list will be placed on the waiting list. Re-admission will depend upon the students' status on the list. Placement above program ready student will not occur. Upon acceptance into the program for the second time, the student can select to repeat all the courses or take the final exams for each course previously taken. The student will be required to pass a skills performance and evaluation check in the school laboratory before reentrance into the clinical rotation courses.

**Note: Grading standards for Respiratory Care are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be achieved in every RTT course.**

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$70
- Uniforms .....\$170

Other required out-of-pocket expenses:

- Self-assessment exam .....\$200
- Entry-level exam (CRT).....\$190
- Liability insurance .....\$12
- GA RCP license.....\$85
- Medical fees.....\$137
- RRT Written & Simulation.....\$390
- Review Seminar.....\$260

**Note: A student who has been convicted of a felony or misdemeanor may be admitted to the Respiratory Care Technology Program; however, such conviction may prohibit a student from obtaining a Respiratory Care Practitioners' License. License approval rests solely with the Georgia Board of Medical Examiners.**

### Related Programs of Study:

- Electrocardiography Technician Certificate
- Polysomnography Technician Certificate

## Curriculum

Minimum credits required for graduation: **128**

### **General Core 35-36**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking <b>OR</b>	5
ENG	1105	Technical Communications	(5)
PSY	1101	Introductory Psychology	5
CHM	1111	Chemistry I	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1100	Quantitative Skills & Reasoning <b>OR</b>	(6)
MAT	1101	Mathematical Modeling	(5)
PHY	1110	Introductory Physics	5

### **Occupational Core 93**

BIO	2113	Anatomy & Physiology I	5
BIO	2114	Anatomy & Physiology II	5
BIO	2117	Introduction to Microbiology	5
RTT	193	Cardiopulmonary Anatomy and Physiology	10
SCT	100	Introduction to Microcomputers	3
RTT	111	Pharmacology	5
RTT	112	Introduction to Respiratory Therapy	5
RTT	113	Respiratory Therapy Lab I	5
RTT	209	Clinical Practice I	2
RTT	210	Clinical Practice II	2
RTT	211	Pulmonary Disease	5
RTT	212	Critical Respiratory Care	5
RTT	213	Mechanical Ventilation Equipment & Airway Care	5
RTT	214	Advanced Critical Care Monitoring	2
RTT	215	Pulmonary Function Testing	1
RTT	216	Pediatric and Neonatal Respiratory Care	3
RTT	217	Advanced Respiratory Care Seminar	5
RTT	218	Clinical Practice III	2
RTT	219	Clinical Practice IV	2
RTT	220	Clinical Practice V	5
RTT	222	Clinical Practice VI	10
RTT	227	Rehabilitation and Home Care	1

# Surgical Technology ST02

## Griffin Campus

### The Diploma Program

The Surgical Technology program prepares students for employment in a variety of positions in today's surgical technology profession. Students are prepared to function in association with nurses and surgeons to help provide the best possible care of the surgical patient. They gain knowledge and experience with aseptic techniques, and preparation and use of instruments and supplies to be used in surgery during surgical procedures. This program is designed for the students to obtain entry level positions in surgical technology and to achieve certification after successful completion of the program.

Upon admission to the College, students desiring the Surgical Technology Diploma program as his/her major will be placed in the Health Care Assistant Certificate while working on program admission requirements.

### Diploma Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Be at least 17 years of age.
2. Upon successful completion (or transfer in) of ENG 1010, MAT 1012, PSY 1010, SCT 100, AHS 1011, AHS 104, and AHS 109 with a minimum grade of "C" in each course and a grade point average (GPA) of 3.0 or higher, the student will be "program ready". Science courses transfer only if taken within the last five years. **It will be the responsibility of the student to notify the *Surgical Technology Program Director* when all core courses have been completed. The Surgical Technology Program Director will supply a program ready form at the time of completion.** There is not a waiting list for the Surgical Technology Program. The Surgical Technology Program is competitive. Therefore, although one may be program ready, qualified candidates are admitted based on several criteria to include the GPA and Program Enrollment application date. All students who are not accepted into the program must reapply by completing a new Program Ready Form. A new Surgical Technology class starts every three quarters. **If a student changes his/her declared major from Surgical Technology to a different diploma or degree program, and then back to Surgical Technology, the latest program application date will be used when determining placement.**

*Note: Grading standards for Surgical Technology courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be maintained in the lecture courses and a grade of "B" in the clinical/lab courses. Students who are unsuccessful after a second attempt at courses within the Surgical Tech curriculum will be advised to choose another program of study.*

**Medical courses and some others have a transfer/readmittance life of five years.**

### Readmission Policy

Readmission into the Surgical Technology program following voluntary withdrawal will be based on the following:

- Successfully complete written comprehensive examinations for each previously completed Surgical Technology course and prove competency with an 80 percent or greater result.
- Successfully complete lab skill check offs.
- SUR 101 and SUR 109 must be retaken.

**Deficiencies will result in the student repeating appropriate course/courses. Readmission will be based on available space within the classrooms and clinical sites.**

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$50
- Uniforms .....\$200

Other required out-services:

- Criminal Background & Drug Screen .....\$80
- CPR .....\$5
- AST student membership .....\$45
- CST exam (student member) .....\$190
- Liability insurance .....\$12
- Physical exam .....varies

### Transfer Policy for Diploma Program and Associate Degree Program

Transferring Surgical Technical students from other technical colleges must make applications and submit official transcripts. Each Surgical Technology course listed on the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination. A score of 80 percent must be attained to demonstrate proficiency in all transferred surgical courses.

### Related Programs of Study:

- Surgical Technology Degree
- Central Sterile Technician Certificate

## Transfer Policy for Diploma Program and Associate Degree Program

Transferring Surgical Technical students from other technical colleges must make applications and submit official transcripts. Each Surgical Technology course listed on the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination. A score of 80 percent must be attained to demonstrate proficiency in all transferred surgical courses.

### Related Programs of Study:

- Surgical Technology Degree
- Central Sterile Technician Certificate

## Curriculum

Minimum credits required for graduation: **87**

### General Core **15**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
PSY	1010	Basic Psychology	5

### Occupational Core **72**

SCT	100	Introduction to Microcomputers	3
AHS	1011	Anatomy and Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Sciences	3
SUR	101	Introduction to Surgical Technology	6
SUR	102	Principles of Surgical Technology	5
SUR	108	Surgical Microbiology	3
SUR	109	Surgical Patient Care	3
SUR	110	Surgical Pharmacology	3
SUR	112	Introductory Surgical Practicum	7
SUR	203	Surgical Procedures I	6
SUR	204	Surgical Procedures II	6
SUR	213	Specialty Surgical Practicum	8
SUR	214	Advanced Specialty Surgical Practicum	8
SUR	224	Seminar in Surgical Technology	3

# Surgical Technology ST03

## Griffin Campus

### The Associate Degree Program

The Surgical Technology program prepares students for employment in a variety of positions in today's surgical technology profession. Students are prepared to function in association with nurses and surgeons to help provide the best possible care of the surgical patient. They gain knowledge and experience with aseptic techniques, and preparation and use of instruments and supplies to be used in surgery during surgical procedures. This program is designed for the students to obtain entry level positions in surgical technology and to achieve certification after successful completion of the program.

Upon admission to the College, students desiring the Surgical Technology Diploma program as his/her major will be placed in the Health Care Assistant Certificate while working on program admission requirements.

### Associate Degree Admission Requirements

Applicants must meet general admissions requirements, and must also:

1. Be at least 17 years of age.
2. Upon successful completion (or transfer in) of ENG 1101, ENG 1102 or HUM 1101, SPC 1101, PSY 1101, SOC 1101, MAT 1111, AHS 104, AHS 109, SCT 100, BIO 2113, BIO 2114, and BIO 2117 with a minimum grade of "C" in each course and a grade point average (GPA) of 3.0 or higher, the student will be "program ready" and eligible for admission into the Surgical Technology program. Medical courses transfer only if taken within the last five years. **It will be the responsibility of the student to notify the Surgical Technology Program Director when all core courses have been completed. The surgical Technology Program Director will supply a program ready form at the time of completion.** There is not a waiting list for the Surgical Technology Program. The Surgical Technology Program is competitive. Therefore, although one may be program ready, qualified candidates are admitted based on several criteria to include the GPA and Program Enrollment application date. All students who are not accepted into the program must reapply by completing a new Program Ready Form. A new Surgical Technology class starts every three quarters
3. If a student changes his/her declared major from Surgical Technology to a different diploma or degree program, and then back to Surgical Technology, the latest program application date will be used when determining placement.

*Note: Grading standards for Surgical Technology courses are very stringent. For students to progress to the next course of study, a minimum grade of "C" must be maintained in the lecture courses and a grade of "B" in the clinical/lab courses. Students who are unsuccessful after a second attempt at courses within the Surgical Tech curriculum will be advised to choose another program of study.*

**Medical courses and some others have a transfer/readmittance life of five years.**

#### Readmission Policy

Readmission into the Surgical Technology program following voluntary withdrawal will be based on the following:

- Successfully complete written comprehensive examinations for each previously completed Surgical Technology course and prove competency with an 80 percent or greater result.
- Successfully complete lab skill check offs.
- SUR 101 and SUR 109 must be retaken.

Deficiencies will result in the student repeating appropriate course/courses. Readmission will be based on available space within the classrooms and clinical sites.

Approximate additional costs other than tuition, fees, and textbooks:

- Equipment/supplies .....\$50
- Uniforms .....\$200

Other required out-services:

- Criminal Background & Drug Screen .....\$80
- CPR .....\$5
- AST student membership .....\$45
- CST exam (student member) .....\$190
- Liability insurance .....\$12
- Physical exam .....varies

## Transfer Policy for Diploma Program and Associate Degree Program

Transferring Surgical Technical students from other technical colleges must make applications and submit official transcripts. Each Surgical Technology course listed on the transferring student's official transcript will be considered for transfer credit after transferring student has demonstrated proficiency by examination. A score of 80 percent must be attained to demonstrate proficiency in all transferred surgical courses.

### Related Programs of Study:

- Surgical Technology Diploma
- Central Sterile Technician Certificate

## Curriculum

Minimum credits required for graduation: **109**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introduction to Psychology	5
SOC	1101	Introduction to Sociology	5
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)

### Occupational Core **79**

AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology for Allied Health Sciences	3
BIO	2113	Anatomy and Physiology I	5
BIO	2114	Anatomy and Physiology II	5
BIO	2117	Introduction to Microbiology	5
SCT	100	Introduction to Microcomputers	3
SUR	101	Introduction to Surgical Technology	6
SUR	102	Principles of Surgical Technology	5
SUR	109	Surgical Patient Care	3
SUR	110	Surgical Pharmacology	3
SUR	112	Introductory Surgical Practicum	7
SUR	203	Surgical Procedures I	6
SUR	204	Surgical Procedures II	6
SUR	213	Specialty Surgical Practicum	8
SUR	214	Advanced Specialty Surgical Practicum	8
SUR	224	Seminar in Surgical Technology	3

# Technical Studies THN3

## Griffin Campus

### The Associate Degree Program

The purpose of the Associate of Applied Science -Technical Studies degree program is to provide an avenue for diploma students of the Technical Studies Department to have an opportunity for an associate degree in many of the technical programs.\*

**\*Automotive Collision Repair is excluded from this degree.**

## Curriculum

Minimum credits required for graduation: **90**

### General Core **30**

ENG	1101	Composition & Rhetoric	5
ENG	1102	Literature & Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
SPC	1101	Public Speaking	5
PSY	1101	Introductory Psychology	5
ECO	1101	Principles of Economics	5
MAT	1111	College Algebra	5

### Occupational Core **45**

XXX    xx    Completion of an accredited technical program of study, evaluation of work history and occupational learning experiences equivalent to required credits minimum, and/or completion of specified individual program of study.

### Occupational Specialty Courses **15**

XXX    xx    Completion of a minimum of 15 credit hours in an advanced Technical related area identified in individual program of study.



# Welding & Joining Technology

## WJ02

### The Diploma Program

This program is a sequence of courses that prepares students for careers in the welding industry. Training areas include shielded metal arc welding, gas tungsten arc welding, oxyacetylene welding and cutting, and common joining processes.

Competencies achieved in the study of welding and joining meet qualification criteria for national welding and joining code standards.

Approximate additional costs other than tuition, fees, and textbooks:

- Tools .....\$300

### Related Programs of Study:

- Gas Metal Arc Welder Fabricator Certificate
- Basic Welding Certificate
- Flat Shielded Metal Arc Welder Certificate
- Gas Tungsten Arc Welder Certificate
- Ornamental Iron Fabricator Certificate
- SMAW Pipe Welding Certificate
- Vertical Shield Metal Arc Welding Fabricator Certificate

### Curriculum

Minimum credits required for graduation: **75**

#### General Core **13**

ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
EMP	1000	Interpersonal Relations & Prof. Dev.	3

#### Occupational Core **62**

SCT	100	Introduction to Microcomputers	3
WLD	100	Intro to Welding Technology	6
WLD	101	Oxyfuel Cutting	4
WLD	103	Blueprint Reading I	3
WLD	104	Shielded Metal Arc Welding I	6
WLD	105	Shielded Metal Arc Welding II	6
WLD	106	Shielded Metal Arc Welding III	6
WLD	107	Shielded Metal Arc Welding IV	6
WLD	108	Blueprint Reading II	3
WLD	109	Gas Metal Arc Welding	6
WLD	110	Gas Tungsten Arc Welding	4
WLD	112	Preparation for Industrial Qualification	4
WLD	160	Welding and Joining Technology Half-Time Internship <b>OR</b>	5
XXX	xxx	Elective(s)	(5)

## CERTIFICATE PROGRAMS

Unless otherwise indicated applicants for certificate programs must meet general admissions requirements and must also:

1. Present official documentation of an earned high school diploma, GED, or college degree.
2. Present acceptable ASSET, COMPASS, SAT, or ACT scores taken within the last five years or transfer of program level English and math from a regionally accredited college or post-secondary institution with a grade of C or better.

Please see your advisor for appropriate admission score requirements. If a Technical Certificate of Credit does not have documented admission score requirements, use the following as minimum score requirements:

Asset	Compass	SAT	ACT
Reading <b>29</b>	Reading <b>46</b>	Verbal <b>430</b>	Verbal <b>18</b>
Writing <b>29</b>	Writing <b>15</b>	Math <b>400</b>	Math <b>16</b>
Numerical Skills <b>29</b>	Pre-Algebra <b>17</b>		

## ACCOUNTING CERTIFICATE PROGRAMS

### Banking and Finance (BFN1) 25

This technical certificate of credit (TCC) is designed to provide skills training to individuals interested in banking or a related career. This TCC will provide entry level skills training in the banking industry.

ACC 1101	Principles of Accounting I	6
ACC 1106	Spreadsheet Applications	3
BAF 100	Introduction to Banking and Finance	5
MAT 1011	Business Mathematics	5
SCT 100	Introduction to Microcomputers	3
XXX xxx	Elective	3

### Computerized Accounting Specialist (5AQ1) 26

The Computerized Accounting Specialist technical certificate of credit provides students with basic skills in computerized accounting. Topics include: principles of accounting, computerized accounting, spreadsheet fundamentals and basic computers.

ACC 1101	Principles of Accounting I	6
ACC 1102	Principles of Accounting II	6
ACC 1104	Computerized Accounting	3
ACC 1106	Accounting Spreadsheet Fundamentals	3
SCT 100	Introduction to Microcomputers	3
XXX xxx	Elective	5

### Office Accounting Specialist (5AY1) 18

The Office Accounting Specialist technical certificate of credit provides entry-level office accounting skills. Topics include: principles of accounting, computerized accounting and basic computer skills.

ACC 1101	Principles of Accounting I	6
ACC 1102	Principles of Accounting II	6
ACC 1104	Computerized Accounting	3
SCT 100	Introduction to Microcomputers	3

### Payroll Accounting Specialist (5AP1) 23

The Payroll Accounting Specialist technical certificate of credit provides entry-level skills into payroll accounting. Topics include: principles of accounting, computerized accounting, principles of payroll accounting, mathematics, and basic computer use.

ACC 1101	Principles of Accounting I	6
ACC 1102	Principles of Accounting II	6
ACC 1104	Computerized Accounting	3
ACC 1152	Payroll Accounting	5
SCT 100	Introduction to Microcomputers	3

### Tax Preparation Specialist (5AR1) 20

The Tax Preparation Specialist technical certificate of credit is designed to provide entry-level skills for tax preparers. Topics include: principles of accounting, tax accounting, business calculators, mathematics, and basic computer skills.

ACC 1101	Principles of Accounting I	6
ACC 1151	Individual Tax Accounting	4
ACC 2156	Business Tax Accounting	4
SCT 100	Introduction to Microcomputers	3
XXX xxx	Elective	3

## AIR CONDITIONING TECHNOLOGY CERTIFICATE PROGRAMS

### Light Commercial Air Conditioning Specialization (ADL1) 16

This certificate is a sequence of courses that prepares diploma or degree graduates or air conditioning technicians for careers in the light commercial air conditioning industry.

Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment.

Admissions: Must meet minimum COMPASS scores for a certificate program. Must complete the diploma or associate degree or possess at least three years of appropriate work experience and have instructor permission.

ACT 200	Design/Application of Light Commercial Air Conditioning	4
ACT 201	Light Commercial Air Conditioning Control Systems	4
ACT 202	Light Commercial Air Conditioning Systems Operation	8

**Air Conditioning Technician Assistant (AX01) 18**

The certificate program prepares students for entry level positions as A/C tune-up technicians and technicians' helpers. The course curriculum provides a comprehensive study of the vapor-compression refrigeration cycle, basic plumbing and piping practices and refrigerant system charging, evacuation, as well as refrigerant recovery, recycle, and reclamation. The course work is not as comprehensive as the Air Conditioning Diploma but can transfer toward the diploma or associate degree.

Admissions: Must meet minimum COMPASS scores for a certificate program. Does not require official documentation of an earned high school diploma, GED, or college degree.

ACT	100	Refrigeration Fundamentals	4
ACT	101	Refrigeration Principles & Practices	7
ACT	102	Refrigeration Systems Components	7

**General Maintenance Mechanic (GMA1) 36**

ACT	100	Refrigeration Fundamentals	4
ACT	103	Electrical Fundamentals	7
ACT	104	Electric Motors	4
BFM	103	Fund of Structural Maintenance	6
BFM	105	Fundamentals of Plumbing	3
ELT	107	Commercial Wiring I	5
IFC	100	Industrial Safety Procedures	2
MAT	1012	Fundamentals of Mathematics	5

**Heating and Air Conditioning Installation Technician (HAC1) 19**

The Heating and Air Conditioning Installation certificate includes courses designed to teach the fundamentals involved in the basic installation of HVAC systems. The material covered in these courses includes training in the use of specific tools and equipment used to install HVAC systems, piping and plumbing practices such as flaring, soldering and brazing, making basic electrical connections, package units and split systems, working with various ducting materials and safety. The courses taught in this program would help prepare an individual for entry level employment as an HVAC installation technician. The courses can be transferred toward the diploma or degree in Air Conditioning Technology.

ACT	101	Principles & Practices of Refrigeration	7
ACT	103	Electrical Fundamentals	7
ACT	108	A/C Systems and Installation	3
IFC	100	Industrial Safety Procedures	2

**AUTOMOTIVE COLLISION  
CERTIFICATE PROGRAMS****Painting and Refinishing Specialist (5DX1) 24  
Griffin Campus**

This certificate is required for students who wish to paint automobiles in the auto body industry. The program provides students with the knowledge of sanding, priming, taping, and painting preparation. This certificate will cover all of the courses related to urethane refinishing, tinting, matching colors, and detailing of auto body vehicles.

ACR	130	Sanding, Priming & Paint Preparation	5
ACR	132	Special Refinishing Application	5
ACR	134	Urethane Enamels Refinishing Application	6
ACR	135	Tint and Match Colors	6
ACR	136	Detailing	2

**AUTOMOTIVE TECHNOLOGY  
CERTIFICATE PROGRAMS****Automotive Automatic Transmission and Transaxle Technician (5CT1) 23**

This certificate is designed to provide students with skills to enter the automotive industry as entry-level Automatic Transmission/Transaxle technicians. The program introduces the study of Automatic Transmission/Transaxle theory, power flow, fundamental hydraulic circuitry, electrical circuitry, testing procedures, diagnosis techniques, in car repair, service procedures, and overhaul procedures. The program is certified by the National Automotive Technicians Education Foundation/ASE.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	144	Intro to Automatic Transmissions	4
AUT	210	Automatic Transmission Repair	7
AUT	212	Adv. Electronic Transmission Diagnosis	3

**Automotive Brake Technician (5CU1) 17**

This certificate provides students with entry-level skills for entering the automotive industry as brake technicians. The program includes hydraulics, braking systems theory, operation, drum brakes, disc brakes, power assisted brakes, anti lock braking systems, brake system diagnosis, brake system repair, and brake system servicing. The program is certified by the National Automotive Technicians Education Foundation/ASE.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	130	Automotive Brake Systems	4
AUT	214	Adv. Electronic Brake System Diagnosis	4

**Automotive Electrical/Electronic Systems Technician (5AS1) 15**

This program provides students with the knowledge and skills necessary to diagnose, service, and repair basic electrical/electronic systems as an entry-level automotive technician. Topics include automotive batteries, starting systems, charging systems, instrumentation, lighting, and accessories.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting & Charging Systems	4
XXX	xxx	Elective	2

**Automotive Engine Performance Technician (AEG1) 18**

This program introduces students to the knowledge and skills they will need as entry-level engine performance technicians. Topics covered include theory, diagnosis, service, and repair of fuel systems, ignition systems, emission systems, and electronic engine controls.

Admissions: Present documentation of valid driver's license. Completion of AUT 120, AUT 122, AUT 124, and AUT 126 or three years of automotive related experience and instructor's approval.

AUT	128	Fuel, Ignition, and Emission Systems	7
AUT	140	Electronic Engine Control Systems	7
AUT	218	Advanced Electronic Engine Control Systems	4

**Automotive Engine Repair Technician (5CS1) 15**

The Automotive Engine Repair Technician certificate provides the student with entry-level skills that include basic shop safety, engine principles of operation, basic engine diagnosis, and basic engine repair. Upon satisfactory completion of this program's curriculum, the student will receive an Automotive Engine Repair Technician certificate.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	126	Engine Principles of Operation	6

**Automotive Heating and Air Conditioning Technician (5AM1) 15**

This certificate program provides students with skills for entering the automotive industry as entry-level heating and air conditioning technicians. The program includes theory, diagnosis, servicing, and repair of automotive heating and air conditioning systems. The program is certified by the National Automotive Technicians Education Foundation/ASE.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	142	Climate Control Systems	6

**Automotive Manual Drive Train and Axle Repair Technician (ADT1) 17**

This program provides students with the knowledge and skills necessary to enter the automotive industry as entry-level automotive manual drive and axle repair technicians. The program includes theory, diagnosis, servicing, removal, replacement, and repair of manual transmissions, clutches, drive shafts, differentials, and axles.

Admissions: Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	134	Drivelines	4
AUT	138	Manual Transmission/Transaxle	4

**Automotive Suspension and Steering Technician (5CV1) 17**

The Automotive Suspension and Steering Technician certificate program provides students with the skills needed to enter the automotive industry as suspension and steering entry-level technicians. The program presents vehicle chassis types; chassis components; steering and suspension systems; steering and suspension operation, design, service, repair, alignment, and problem solving.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	132	Suspension and Steering Systems	4
AUT	216	Advanced Electronic Controlled Suspension and Steering Systems	4

**Basic Automotive Service Technician (5CQ1) 31**

This certificate program prepares the student for entry level careers in the automotive service and repair profession. The program emphasizes a combination of automotive technology theory and practical application necessary for successful employment as an entry level maintenance technician.

Admissions: Acceptable admissions scores. A high school diploma or GED is not required for this certificate. Present documentation of valid driver's license.

AUT	120	Intro to Automotive Technology	3
AUT	122	Electrical and Electronic Systems	6
AUT	124	Battery, Starting & Charging Systems	4
AUT	142	Climate Control Systems OR	6
AUT	126	Engine Principles of Operation	(6)
AUT	130	Automotive Brake Systems	4
AUT	132	Suspension and Steering Systems	4
AUT	138	Manual Transmission/Transaxle	4

**Lawn Equipment/Small Engine Repair (LSB1) 16  
Jasper Center**

This certificate program will prepare students with the basic skills needed to repair and maintain lawn equipment and small engines. Emphasis is placed on a combination of small engine mechanics theory and practical application necessary for successful employment in the lawn care, golf course maintenance, landscaping and small engine repair industries.

LER	100	4-Cycle Engine Repair	5
LER	105	Transaxle Repair	5
LER	110	General Lawnmower Repair	3
LER	115	2-Cycle Engine Repair	3

## BARBERING CERTIFICATE PROGRAM

### Barbering for Cosmetologists (BBC1) 19

#### Flint River Campus

The Barbering for Cosmetologists is to provide master cosmetologists the knowledge, practical skills, and training in barbering implements, sanitation, shaving, skin, scalp, and hair and haircutting/styling. With the skills and knowledge, the master cosmetologists can take the barbering licensure examination given by the Georgia State Board of Barbering. The program graduate receives a Barbering for Cosmetologists Certificate and is employable as a barber, salon/shop manager, or a salon/shop owner.

BAR 100	Introduction to Barber/Styling	3
BAR 101	Introduction to Barber/Styling Implements	2
BAR 102	Science: Sterilization, Sanitation, & Bacteriology	3
BAR 106	Shaving	3
BAR 110	Haircutting/Styling	5
BAR 114	Skin, Scalp, Hair, and Facial Treatments	3

## BUSINESS RELATED CERTIFICATE PROGRAMS

### Administrative Support Assistant (5DC1) 31

This program prepares individuals to provide administrative support under the supervision of office managers, executive assistants, and other office personnel. Courses include: introduction to microcomputers, word processing, office procedures, and accounting.

ACC 1101	Principles of Accounting I	6
*BUS 1130	Document Processing	6
BUS 1140	Word Processing	5
BUS 1240	Office Procedures	5
BUS xxx	Elective	6
SCT 100	Introduction to Microcomputers	3

\*Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.

### Data Entry Clerk (5DD1) 20

This program prepares individuals to perform basic data and text entry using standard and customized software products. Includes instructions in keyboarding skills, personal computer and work station operation, and various interactive software programs used for tasks such as word processing, spreadsheets, databases and others.

*BUS 1130	Document Processing	6
SCT 100	Intro to Microcomputers	3
BUS 1210	Electronic Calculators	3
MAT 1011	Business Mathematics	5
BUS xxx	Business Elective	3

\*Students planning to enroll in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.

### Digital Photographer (5PG1) 16

#### Griffin Campus

This program is designed to provide the student with knowledge of the fundamentals of digital photography including history, background, theory, and applications of the technology.

CPH 101	Photographic Theory Fundamentals	3
CPH 106	Portraiture	4
CPH 111	Commercial Photography	4
CPH 117	Photographic History	1
CPH 141	Photo Imaging I	4

### Entrepreneur Management (EM21) 20

This certificate will prepare students to enter into entry level management positions within the Business Management field. Graduates will have a knowledge base that includes principles of management, performance management, small business management and retail management.

MSD 100	Management Principles	5
MSD 117	Small Business Management	5
MSD 115	Retail Management	5
MSD 106	Performance Management	5

### Human Resource Management Specialist (5BZ1) 35

This program serves as a concentrated study emphasizing the knowledge needed by human resource managers.

MSD 101	Organizational Behavior	5
MSD 102	Employment Law <b>OR</b>	5
MSD 105	Labor Management	(5)
MSD 104	Human Resource Management	5
MSD 106	Performance Management	5
MSD 107	Employee Training and Development	5
MSD 114	Management Communications Technologies	5
MSD xxx	Elective	5

### Management and Leadership Specialist (5AL1) 33

This certificate serves as an expanded overview in the field of management.

MSD 100	Principles of Management	5
MSD 102	Employment Law <b>OR</b>	5
MSD 105	Labor Management Relations	(5)
MSD 103	Leadership	5
MSD 106	Performance Management	5
MSD 107	Employee Training and Development	5
SCT 100	Introduction to Microcomputers	3
MSD xxx	Elective	5

### Medical Billing Clerk (5D01) 22

#### Griffin Campus

This certificate program provides instruction in medical insurance and medical billing for reimbursement purposes.

AHS 1011	Anatomy & Physiology	5
AHS 109	Medical Terminology for Health Science	3
*BUS 1130	Document Processing	6
BUS 2370	Medical Billing/Coding/Insurance	5
SCT 100	Introduction to Microcomputers	3

\*Students enrolling in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.

**Medical Coding Specialist (5C01) 35****Griffin Campus**

This certificate program provides entry-level training in medical records coding skills that can be utilized in multiple types of health care facilities. The Medical Coding certificate provides entry-level training in the Medical Coding protocols of ICD-9 and CPT-4. Other areas of study included in this certificate include anatomy and terminology and human diseases. This certificate offers a unique opportunity to persons currently employed by medical care providers or those wishing to become employed in the medical field.

ENG 1010	Fundamentals of English I	5
AHS 109	Medical Term. for Allied Health Science	3
*BUS 1130	Document Processing	6
AHS 1011	Anatomy and Physiology	5
MAS 112	Human Diseases	5
MAS 151	Medical Procedures Coding I	4
MAS 152	Medical Procedures Coding II	4
MAS 153	Physicians' Procedural Coding	3

\*Students enrolling in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.

**Medical Data Clerk (MD21) 19**

This certificate will prepare students to enter the healthcare profession as a medical data clerk, medical office assistant, etc. Graduates will have a knowledge base that includes medical terminology, computer skills, and office procedures.

AHS 1011	Anatomy & Physiology	5
AHS 109	Medical Term. For Allied Health Science	3
MAS 106	Medical Office Procedures	5
MAS 110	Medical Insurance Management	3
SCT 100	Introduction to Microcomputers	3

**Medical Language Specialist (5DF1) 43****Griffin Campus**

The Medical Language Specialist program includes instruction in transcription, proofreading, and report analysis while applying medical terminology and computer application skills.

AHS 1011	Anatomy and Physiology	5
AHS 109	Medical Term. For Allied Health Science	3
*BUS 1130	Document Processing	6
BUS 2320	Medical Document Processing/Transcription	5
BUS 2330	Advanced Medical Document Processing	5
BUS xxx	Specific Occupational-Guided Electives	
ENG 1010	Fundamentals of English I	5
MAS 112	Human Diseases	5
SCT 100	Introduction to Microcomputers	3

\*Students enrolling in BUS 1130 must complete a typing test indicating the ability to key at least 25 words per minute or complete BUS 1100.

**Microsoft Office Applications Professional (5CG1) 22**

This certificate program consists of a minimum of three to four quarters and focuses on specific skills that are applicable to the various Microsoft Office Suite computer applications. This certificate does NOT grant Microsoft certification; however, a graduate of this program is adequately prepared to apply for and take the Microsoft Certified Applications Specialist certification exams that are given at Microsoft approved test centers. Topics include: word processing, spreadsheets, database fundamentals, desktop publishing fundamentals, Microsoft Windows, Business English, and math studies.

SCT 100	Introduction to Microcomputers	3
BUS 1140	Word Processing	5
BUS 2120	Spreadsheet Applications	3
BUS 1150	Database Applications	3
BUS 2150	Presentation Applications	3
BUS xxx	BUS Electives	5

**Operations Management Specialist (5CB1) 33**

This program prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, production, and manufacturing.

MSD 100	Principles of Management	5
MSD 106	Performance Management	5
MSD 107	Employee Training & Development	5
MSD 202	Production/Operations Management	5
MSD 206	Project Management	5
SCT 100	Introduction to Microcomputers	3
MSD xxx	Elective	5

**Service Sector Management Specialist (SST1) 33**

This certificate is designed to emphasize management skills needed in a service environment.

MSD 100	Principles of Management	5
MSD 106	Performance Management	5
MSD 107	Employee Training & Development	5
MSD 115	Retail Management <b>OR</b>	5
MSD 206	Project Management	(5)
MSD 205	Service Sector Management	5
SCT 100	Introduction to Microcomputers	3
MSD xxx	Elective	5

**Small Business Management Specialist (SBC1) 33**

This certificate is designed to emphasize management skills needed when either starting or managing a small business.

MSD 102	Employment Law <b>OR</b>	5
MSD 105	Labor Management	(5)
MSD 106	Performance Management	5
MSD 109	Managerial Accounting & Finance <b>OR</b>	5
ACC 1101	Principles of Accounting I	(6)
MSD 115	Retail Management	5
MSD 117	Small Business Management	5
SCT 100	Introduction to Microcomputers	3
MSD xxx	Elective	5

**Supervisory Specialist (SS11) 20**

Supervisory Specialist will prepare students to enter into supervisory positions with in the Business Management field as well as other fields. Graduates will have a knowledge base that includes principles of management, organizational behavior, leadership and performance management.

MSD 100	Management Principles	5
MSD 106	Performance Management	5
MSD 103	Leadership	5
MSD 101	Organizational Behavior	5

**Technical Communications (5DQ1) 45**

The purpose of this certificate is to prepare students for positions in business that require written and oral communication skills along with the technical proficiency to translate technical information to various audiences and in various formats.

ENG 1101	Composition & Rhetoric	5
ENG 1105	Technical Communications	5
SPC 1101	Fundamentals of Speech	5
MAT 1111	College Algebra <b>OR</b>	5
MAT 1113	Precalculus	(5)
PSY 1101	Introduction to Psychology <b>OR</b>	5
SOC 1101	Introduction to Sociology <b>OR</b>	(5)
ECO 1101	Principles of Economics	(5)
ENG 1102	Literature and Composition <b>OR</b>	5
HUM 1101	Introduction to Humanities <b>OR</b>	(5)
MUS 1101	Music Appreciation <b>OR</b>	(5)
ART 1101	Art Appreciation	(5)
SCT 100	Introduction to Microcomputers	3
XXX xxx	Occupational Electives	12

## CARPENTRY

### CERTIFICATE PROGRAMS

**Cabinet Making Assistant (KB01) 17****Griffin Campus**

This certificate introduces the student to the safe use of hand and power tools in relation to cabinet making. Basic cabinet making skills, blueprint reading and safety will be studied. Graduates of the Cabinet Making Assistant Certificate may expect to find entry-level jobs in small, medium, or large cabinet making facilities. Job duties could include cutting parts, building, or installing cabinets.

Admissions: Acceptable admission scores. Does not require official documentation of an earned high school diploma, GED, or college degree.

CAR 101	Safe Use of hand & Power Tools	3
CAR 105	Print Reading	5
CAB 101	Cabinet Design & Layout	2
CAB 102	Cabinet Assembly I	5
CAB 103	Cutting Cabinet Components	2

**Framing Carpenter (CR01) 28****Griffin Campus**

This certificate prepares students for employment as framing carpenters. Program completers are trained in the use of hand and power tools, materials, blueprint reading, floor, wall, ceiling, and roof framing.

Admissions: Does not require official documentation of an earned high school diploma, GED, or college degree.

CAR 101	Safe Use of Hand & Power Tools	3
CAR 103	Materials	3
CAR 105	Print Reading	5
CAR 107	Site Layout, Footings, and Foundations	5
CAR 110	Floor Framing	3
CAR 111	Wall Framing	3
CAR 112	Ceiling & Roof Framing	6

## COMPUTER INFORMATION SYSTEMS

### CERTIFICATE PROGRAMS

**CompTIA A+ Certified Technician Preparation (5AT1) 27****Griffin Campus**

This certificate program is designed to provide computer users with the skills and knowledge necessary to take the CompTIA A+ certification exam. Earning CompTIA A+ certification shows that the individual possesses the knowledge, technical skills and customer relations skills essential for working as a successful entry-level computer service technician.

Admissions: Does not require official documentation of an earned high school diploma, GED, or college degree.

CIS 103	Operating Systems Concepts	6
CIS 122	Microcomputer Installation & Maintenance	7
SCT 100	Introduction to Microcomputers	3
CIS 106	Computer Concepts	5
CIS xxx	Elective	6

**CISCO CCNP Specialist (CCN1) 24****Griffin Campus**

This technical certificate teaches students the skills needed to design, build, and maintain small to medium-size networks. Students are prepared to enter the workforce and/or further their education and training in the computer networking field. This program leads to the Cisco Certified Networking Associate (CCNA) certification.

CIS 2501	Building Scalable Cisco Networks	6
CIS 2502	Building Cisco Remote Access Networks	6
CIS 2503	Building Cisco Multiple Switch Networks	6
CIS 2504	Cisco Internet Troubleshooting	6

**CISCO Network Specialist (5BG1) 24**

**Griffin Campus**

This technical certificate teaches students the skills needed to design, build, and maintain small to medium-size networks. Students are prepared to enter the workforce and/or further their education and training in the computer networking field. This program leads to the Cisco Certified Networking Associate (CCNA) certification.

- CIS 2321 Introduction to LAN and WAN 6
- CIS 2322 Introduction to WANs and Routing 6
- CIS 276 Advanced Routers and Switches 6
- CIS 277 WAN Design 6

**Internet Specialist Web Site Designer (5C01) 37**

**Griffin Campus**

This program provides the student with skills to create and maintain web sites. After completion of this certificate, the student will be able to create interactive web sites that contain graphics, vectors, back-end programming, and database storage. The purpose of this certificate is to provide training to experienced computer professionals or as additional training to students with previous computer training. Students completing this certificate will be prepared to become Web Site Designers.

- CIS 2202 XHTML Fundamentals 5
- CIS 2231 Design Methodology 6
- CIS 2281 Database Connectivity 6
- CIS 2261 JavaScript Fundamentals 4
- CIS 2211 Web Site Design Tools 6

**Web Graphics course (choose one)**

- CIS 1104 Web Graphics using Adobe Photoshop **OR** 4
- CIS 1108 Web Graphics using JASC Paint shop (4)

**Web Graphics & Animation course (choose one)**

- CIS 1123 Web Graph & Anim. Using Adobe Flash **OR** 6
- CIS 1124 Web Graphics & Animation using Adobe Illustrator and Adobe Live Motion (6)

**Internet Specialist Web Site Developer (5CP1) 47**

**Griffin Campus**

This program provides skills to develop interactive web sites which include graphics, XHTML, front-end scripting programs, back-end servlet programs, and database connectivity. This certificate prepares the student with the skills to be a Web Site Developer. The purpose of this certificate is to provide training opportunities for persons either already employed in the computer industry or have already been trained in a related computer area and wish to upgrade their skill with advanced courses and skills.

- CIS 2202 XHTML Fundamentals 5
- CIS 2231 Design Methodology 6
- CIS 2281 Database Connectivity 6
- CIS 2261 Java Script Fundamentals 4
- CIS 2211 Web Site Design Tools 6

**Web Graphics course (choose one)**

- CIS 1104 Web Graphics using Adobe Photoshop **OR** 4
- CIS 1108 Web Graphics using JASC Paint shop (4)

**Web Graphics & Animation course (choose one)**

- CIS 1123 3D Web Graphics & Animation using Macromedia Flash **OR** 6
- CIS 1124 Web Graphics & Animation using Adobe Illustrator & Adobe Live Motion (6)

**Advanced Web Graphics and Multimedia course (choose one)**

- CIS 2005 Advanced Web Graphics and Multimedia using Adobe Photoshop **OR** 6
- CIS 2102 Advanced Web Graphics and Multimedia using Adobe Premiere **OR** (6)
- CIS 2104 Advanced Web Graphics and Multimedia using Adobe Director **OR** (6)
- CIS 2105 Advanced Web Graphics and Multimedia using Adobe Flash (6)

**Web Programming course (choose one)**

- CIS 1106 Introduction to Web Programming using C#.NET **OR** 4
- CIS 1107 Introduction to Web Programming using PERL **OR** (4)
- CIS 1109 Introduction to Web Programming using VB.NET **OR** (4)
- CIS 1110 Introduction to Web Programming using PHP **OR** (4)
- CIS 1111 Introduction to Web Programming using Python (4)



**Microsoft Networking Service Technician** **24**  
 (5CM1)  
**Griffin Campus**

The Microsoft MCSA Certificate provides training in Microsoft networking. This certificate will prepare the student for an entry-level computer networking position. Skills taught include implementation of Microsoft operating systems, implementation of Microsoft servers, and networking Infrastructure. This certificate prepares the student to sit for the Microsoft Certified Professional (MCP) networking exam. Hands-on labs provide students with real world simulations.

CIS	2149	Implementing Microsoft Windows Professional	6
CIS	2150	Implementing Microsoft Windows Server	6
CIS	2153	Implementing Microsoft Windows Networking Infrastructure	6
CIS	xxx	Microsoft MCSA Elective	6

**Video Production Assistant (IVD1)** **17**  
**Griffin Campus**

The Interactive Video Production Assistant certificate program will train competent entry-level video recording assistants who can successfully get an entry level job or continue with their education goals in one of our other program areas. Subject matter includes basic training in digital audio/video recording that can be presented in a web format.

CIS	2801	Interactive Video Productions I	6
CIS	2802	Interactive Video Productions II	6
CIS	2803	Interactive Video Productions III	5

**COMMERCIAL TRUCK DRIVING CERTIFICATE PROGRAMS**

**Commercial Straight Truck and Passenger Driving (Class B) (STP1)** **15**

Admissions: Acceptable admissions scores. Does not require official documentation of an earned high school diploma, GED, or college degree. Must submit a DOT physical/drug screen (5 panel) and alcohol test. Must be 18 years old to operate in the State of Georgia (21 to operate nationally), have a 7 yr. MVR report with no more than 8 pts in the last 3 yrs., no more than 3 moving violations in the last 3 years, have no DUI in the last 5 yrs. and no more than one in the last 7 yrs. If convicted of a felony within the last 7 yrs. student must be interviewed by the program coordinator.

A commercial driving disqualification is imposed when a licensee is convicted of 2 or more serious traffic offenses within a 3 yr. period. A first disqualification is for 60 days and a second or subsequent disqualification is for 120 days per code O.C.G.A. 40-5-151(f) (1).

A "serious traffic violation" includes any of the following offenses when committed while operating a commercial motor vehicle or a non-commercial motor vehicle per code O.C.G.A. 40-5-142(22).

1. Speeding 15 or more miles per hour above the posted speed limit;
2. Reckless driving, as defined under state and local law;
3. Following another vehicle too closely, as defined under state or local law;

4. Improper or erratic lane change;
5. Any violation relating to motor vehicle traffic control that involves a fatal crash;
6. A railroad grade crossing violation as defined under state law or local ordinance;
7. Driving a commercial motor vehicle without obtaining a commercial drivers license;
8. Driving a commercial motor vehicle without a valid commercial driver's license in the driver's immediate possession; or
9. Driving a commercial motor vehicle without a commercial driver's license of the proper class and/or endorsements for the specific vehicle being operated or for the passengers or type of cargo transported.

Georgia law provides that a commercial driving disqualification must be imposed even if the licensee does not hold a commercial driver's license. This has no impact upon a citizen's non-commercial driving privilege but merely prevents him or her from obtaining a commercial driver's license during the period of disqualification.

CTD	101	Fundamentals of Commercial Truck Driving	5
CTD	105	Basic Operations of Commercial Straight Truck & Passenger Driving	5
CTD	106	Advance Operations of Commercial Straight Truck & Passenger Driving <b>OR</b>	5
CTD	107	Internship	(5)

Approximate additional costs other than tuition, fees, and textbooks.

- Equipment/supplies .....\$3.35

Other required out-services:

- DOT physical & drug screen .....\$100
- 7 year MVR .....\$7
- State registration .....\$35
- Permit .....\$45
- License .....\$20

**Commercial Truck Driving (Class A) (TU01)** **15**

Admissions: Acceptable admissions scores. Does not require official documentation of an earned high school diploma, GED, or college degree. Must submit a DOT physical/drug screen (5 panel) and alcohol test. Must be 18 years old to operate in the State of Georgia (21 to operate nationally), have a 7 yr. MVR report with no more than 8 pts in the last 3 yrs., no more than 3 moving violations in the last 3 years, have no DUI in the last 5 yrs. and no more than one in the last 7 yrs. If convicted of a felony within the last 7 yrs. student must be interviewed by the program coordinator.

A commercial driving disqualification is imposed when a licensee is convicted of 2 or more serious traffic offenses within a 3 yr. period. A first disqualification is for 60 days and a second or subsequent disqualification is for 120 days per code O.C.G.A. 40-5-151(f) (1).

A "serious traffic violation" includes any of the following offenses when committed while operating a commercial motor vehicle or a non-commercial motor vehicle per code O.C.G.A. 40-5-142(22).

1. Speeding 15 or more miles per hour above the posted speed limit;
2. Reckless driving, as defined under state and local law;
3. Following another vehicle too closely, as defined under state or local law;
4. Improper or erratic lane change;
5. Any violation relating to motor vehicle traffic control that involves a fatal crash;
6. A railroad grade crossing violation as defined under state law or local ordinance;
7. Driving a commercial motor vehicle without obtaining a commercial drivers license;
8. Driving a commercial motor vehicle without a valid commercial driver's license in the driver's immediate possession; or
9. Driving a commercial motor vehicle without a commercial driver's license of the proper class and/or endorsements for the specific vehicle being operated or for the passengers or type of cargo transported.

Georgia law provides that a commercial driving disqualification must be imposed even if the licensee does not hold a commercial driver's license. This has no impact upon a citizen's non-commercial driving privilege but merely prevents him or her from obtaining a commercial driver's license during the period of disqualification.

CTD	101	Fundamentals of Commercial Truck Driving	5
CTD	102	Basic Operations	5
CTD	103	Advance Operations <b>OR</b>	5
CTD	104	Internship	(5)

Approximate additional costs other than tuition, fees, and textbooks.

- Equipment/supplies .....\$3.35

Other required out-services:

- DOT physical & drug screen .....\$100
- 7 year MVR .....\$7
- State registration .....\$35
- Permit .....\$10
- CDL test .....\$50
- License .....\$20

Both Class A and Class B Commercial Truck Driving students may be subject to random drug and alcohol testing during the quarter they are registered for Commercial Truck Driving classes.

## COSMETOLOGY CERTIFICATE PROGRAMS

### **Cosmetic Esthetician (CES1) 48**

#### **Flint River Campus**

The Cosmetic Esthetician program is designed to offer esthetics training for entry-level students. Completion of the program prepares students to sit for the Esthetics licensure examination given by the Georgia State Board of Cosmetology and to work in a variety of professions that employ estheticians in beauty salons, spas, health clubs, cosmetics stores as well as plastic surgeons' and dermatologist's offices.

COS	117	Salon Management	4
EST	100	Introduction to Esthetics	5
EST	101	Anatomy and Physiology of Skin	5
EST	102	Skin Care Procedures	6
EST	103	Electricity and Facial Treatment	7
EST	104	Advanced Skin Care	5
EST	105	Color Theory and Makeup	4
EST	106	Esthetics Practicum I	6
EST	107	Esthetics Practicum II	6

### **Nail Technician (NAP1) 28**

#### **Flint River Campus, Butts County Center**

This certificate prepares the student for a career as a nail technician in a salon. Instruction includes manicuring, pedicuring, and the application of specialized nail treatments. The program emphasizes safety, sanitation, nail treatments, sales, customer service and salon management. Program graduates are prepared to take the State licensing examination for nail technicians.

COS	100	Introduction to Cosmetology Theory	5
COS	112	Manicuring and Pedicuring	3
COS	117	Salon Management	4
COS	118	Nail Care I	7
COS	119	Nail Care II	9

## CRIMINAL JUSTICE/ FORENSIC SCIENCE CERTIFICATE PROGRAMS

### Criminal Justice Specialist (CJS1) 28

The Criminal Justice Specialist TCC is a sequence of courses that prepares students for Criminal Justice professions. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of Criminal Justice theory and practical application necessary for successful employment. Completers receive a technical certificate of credit. Entry-level persons will be prepared to pursue opportunities in the criminal justice field.

CRJ	101	Introduction to Criminal Justice Technology	5
CRJ	103	Corrections	5
CRJ	104	Principals of Law Enforcement	5
CRJ	202	Constitutional Law	5
CRJ	212	Ethics in Criminal Justice	5
SCT	100	Introduction to Microcomputers	3

### Law Enforcement Specialist (LWS1) 15

This certificate focuses on the criminal justice system, its organizational components and processes, and its legal and public policy contexts. It includes instruction in criminal law and policy, police and correctional system organizations, the administration of justice and the judiciary, and public attitudes regarding criminal justice issues.

Admissions: Acceptable admission scores. Does not require official documentation of an earned high school diploma, GED, or college degree.

CRJ	101	Introduction to Criminal Justice	5
CRJ	104	Principles of Law Enforcement	5
CRJ	202	Constitutional Law	5

## DRAFTING CERTIFICATE PROGRAMS

### Advanced Architectural Drafting Specialist (ADA1) 35

#### Griffin Campus

This sequence of courses is designed for the person who wants to further develop their knowledge and skills in the area of architectural drafting. A graduate from this program may look to be employed with a home builder, surveyor, engineering office (architectural or civil), steel fabricator, pre-stressed structural concrete manufacturer.

Admissions: Acceptable admission scores. Must complete the diploma or associate degree or possess at least three years of appropriate work experience and have instructor permission.

DDS	201	Strength of Materials	OR	5
PHY	1111	Mechanics	OR	(5)
PHY	1110	Introductory Physics		(5)

DDS	203	Surveying I	OR	3
DDS	204	Estimating		(3)

DDS	205	Residential Architectural Drawing I		6
DDS	207	Mechanical Systems for Architecture		3
DDS	208	Residential Architectural Drawing II		6

DDS	209	Structural Steel Detailing	OR	6
DDS	241	Structural Steel Detailing O.B.I.		(6)

DDS	210	Commercial Architectural Drawing I	OR	6
DDS	242	Commercial Architectural Drawing I O.B.I.		(6)

### Computer Aided Drafting Specialist (CAS1) 18

#### Griffin Campus

This sequence of courses is designed for the person already working in the field that needs to update their AutoCAD skills or add AutoCAD to their knowledge base. Graduates from this program may look for employment opportunities with any engineering office, state or local government agency, utility company, or manufacturing industry that utilizes AutoCAD or similar CAD software.

Admissions: Current or previous drafting experience within the past five years.

DDF	107	CAD Fundamentals		6
DDF	111	Intermediate CAD		6
DDF	112	3D Drawing and Modeling		6

## EARLY CHILDHOOD CARE & EDUCATION CERTIFICATE PROGRAMS

### Child Development Association I (CDA1) 19

The CDA I Certificate Program is designed to meet the training needs of persons already working in the field of early care and education. Persons enrolling in this program must have completed a minimum of 480 hours of work in the field with young children. This program is designed to provide the minimum formal training in early care and education competencies, knowledge, skills and techniques required to apply for a Child Development Associate (CDA) credential from the Council for Early Childhood Recognition in Washington, D.C. The CDA credential is not issued by the technical college and must be applied for and paid for separately from this program. However, this program is approved to provide the needed training to attain this credential. Once achieved, this credential is recognized nationally by Head Start and in Georgia for working State Pre-K programs and in many other public and private early care and education settings.

ECE 1010	Introduction to Early Childhood Care and Education	5
ECE 1030	Human Growth and Development I	5
ECE 1050	Health, Safety, and Nutrition	5
ECE 1025	Professionalism through CDA Certificate Preparation	2
ECE 1026	CDA Certificate Assessment	2

\*\* Program admission, ECE 1010, ECE 1030, ECE 1050, 480 clock hours of work experience within last five years with young children and/or ECE 1021, ECE 1022 and ECE 1024. Minimum of 18 years of age required.

### Child Development Specialist (CDE1) 21

The purpose of this Technical Certificate is to provide the necessary skills for entry-level employment as a Child Development Specialist. Skill areas include planning a safe and healthy learning environment, steps to advance children's physical and intellectual development, positive ways to support children's social and emotional development; strategies to establish productive relationships with families, strategies to manage an effective program operation, professionalism; observing and recording children's behavior, and principles of child growth and development.

ECE 1010	Introduction to Early Childhood Care and Education	5
ECE 1030	Human Growth and Development I	5
ECE 1050	Health, Safety, and Nutrition	5
ECE 1012	Curriculum Development	3
ECE 1021	Early Childhood Care and Education Practicum I OR	3
EMP 1000	Interpersonal Relations and Prof. Devel.	(3)

### Early Childhood Care and Education Basics (EC11) 15

The Early Childhood Care and Education Basics technical certificate program provides the basic knowledge for individuals entering the child care field with knowledge of providing a safe and healthy environment, detecting and reporting child abuse, disease control measures, basic human growth and development, developmentally appropriate practices, and balancing the daily schedule.

ECE 1010	Introduction to Early Childhood Care and Education	5
ECE 1030	Health, Safety and Nutrition	5
ECE 1050	Human Growth and Development I	5

### Early Childhood Program Administration (OG01) 15

The purpose of the Early Childhood Program Administration program is to provide the necessary skills to administer and manage a child-care business anywhere in Georgia and to provide a career path for people working in the field who wish to move into administration.

Admissions: Acceptable admissions scores and 21 years of age; approved post-secondary credentials from an accredited institution, a current Child Development Credential (CDA), or qualifying experience pending approval of the program coordinator.

ECE 2170	Day Care Administration	5
ECE 2210	Child Care Facility Management	5
ECE 2220	Child Care Personnel Management	5

### Family Child Care Provider (FCP1) 25

The purpose of this technical certificate is to provide a solid Early Childhood Care and Education foundation of knowledge, skills, attitudes and techniques that will improve the quality of care for children who are cared for by family child care providers. And to provide guidelines and responsibilities for professional business practices associated with the successful establishment and administration of a Family Child Care Home. Minimum of 18 years of age required.

ECE 1010	Introduction to Early Childhood Care and Education	5
ECE 1030	Human Growth and Development I	5
ECE 1050	Health, Safety, and Nutrition	5
ECE 2142	Family Child Care Program Management	5
ECE 2144	Family Child Care Business Management	5

### Infant and Toddler Child Care Specialist (ITC1) 25

This certificate is designed to provide a solid Early Childhood Care and Education foundation of knowledge, skills, attitudes, and techniques that will improve the quality of care for Georgia's infants and toddlers. In addition, this certificate provides the theory, methods, and practice instruction desirable for caregivers who work with infants and toddlers in a variety of care settings. Competencies are aligned with the CDA Standards from the Council for Early Childhood Recognition. Minimum of 18 years of age required.

ECE 1010	Introduction to Early Childhood Care and Education	5
ECE 1030	Human Growth and Development	5
ECE 1050	Health, Safety and Nutrition	5
ECE 2132	Infant/Toddler Development	5
ECE 2134	Infant/Toddler Group Care	5

### School-Age and Youth Care (SYF1) 21-24

The purpose of the School-Age and Youth Care Certificate Program is to provide students with the knowledge, skills and attitude necessary to work effectively during out-of-school hours with children between the ages of six and fourteen years. The competencies in these courses almost entirely overlap with the newly established competencies for School-Age Care Professionals, as outlined by the Georgia Childhood Care and Education Professional Development System's Collaborative Leadership Team. This certificate program will be the first to address these competencies specifically for school age and youth care practitioners who wish to receive formal education in this discipline. Minimum of 18 years of age required.

ECE 1050	Health, Safety and Nutrition	5
ECE 1510	Introduction to Family Issues <b>OR</b>	2
ECE 2020	Social Issues and Family Involvement	(5)
ECE 1052	Early Adolescent Development	5
ECE 2030	Human Growth & Development II	5
ECE 2251	Designing Programs and Environments For School-Age Children and Youth	4

## ELECTRICAL CONSTRUCTION & MAINTENANCE CERTIFICATE PROGRAMS

### Apprentice Lineworker Basic (ALB1) 15

#### Flint River Campus

The Apprentice Lineworker Basic certificate is to prepare apprentice-level students for employment as an electric/utility lineman. Graduates of this program can continue on a career path leading to journeyman lineworker or service worker in public or private companies.

CFC 100	Safety	2
ELT 119	Electricity Principles	4
ELT 130	Basic Lineworker Skills	5
MAT 1012	Fundamentals of Mathematics	5

### Electrical Technician (LL01) 30

#### Griffin Campus

This certificate prepares a student for an entry level position in the residential wiring industry. The certificate provides training in the areas of electrical safety, blueprint reading, electrical theory, and residential wiring practices.

Admissions: Acceptable admissions scores. Does not require official documentation of an earned high school diploma, GED, or college degree.

IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
ELT 119	Electricity Principles II	4
ELT 120	Residential Wiring I	5
ELT 121	Residential Wiring II	6
ELT 106	Prints, Schematics & Symbols	4
MAT 1012	Foundations of Mathematics	5

### Industrial Electrical Controls (IEC1) 32

#### Griffin Campus

This certificate prepares a student for an entry level position in a commercial or industrial environment in which electrical controls are utilized. The courses provide training in electrical theory, electric motors, and an overview of programmable logic controllers.

Admissions: Acceptable admissions scores.

MAT 1012	Foundations of Mathematics	5
SCT 100	Introduction to Microcomputers	3
IFC 101	Direct Current Circuits I	4
ELT 111	Single phase & Three Phase Motors	5
ELT 118	Electrical Controls	5
ELT 119	Electricity Principles II	4
ELT 122	Industrial PLC's	6

## ENVIRONMENTAL HORTICULTURE CERTIFICATE PROGRAMS

### Floral Assistant (FLR1) 17

#### Griffin Campus

The Floral Assistant technical certificate of credit is designed to provide basic entry-level skills to individuals entering the floral work environment. Topics include: plant identification, greenhouse operations, and basic floral design.

Admissions: Requires COMPASS scores of Reading (60), Writing (23), and Pre-Algebra (22). Requires official documentation of earned high school diploma, GED, or college degree. Applicable learning support courses must be completed prior to or concurrently with occupational courses.

EHO 102	Herbaceous Plant Identification	5
EHO 103	Greenhouse Operations	3
EHO 172	Floral Design I	4
EHO 173	Floral Design II	5

### Garden Center Technician (5AK1) 22

#### Griffin Campus

This certificate prepares the student to perform tasks associated with the maintenance of garden center plants and products, as well as, customer relations, sales and service. Graduates of this program will be competent in the areas of plant identification, pest management, and garden center management. These skills include helping customers select appropriate plants and products for their gardening needs, watering, grooming, pruning and scouting plant materials, writing sales tickets, receipts and invoices, and preparing displays and in-store advertising.

Admissions: Must meet minimum COMPASS scores for certificate program. Requires official documentation of an earned high school diploma, GED, or college degree. Applicable learning support courses must be completed prior to or concurrently with occupational courses.

EHO 101	Woody Ornamental Plant ID	6
EHO 102	Herbaceous Plant ID	5
EHO 108	Pest Management	5
EHO 114	Garden Center Management	3
XXX xxx	Elective	3

**Landscape Specialist (5AE1) 29**

**Griffin Campus**

The Landscape Specialist technical certificate of credit provides entry-level skills in landscape design and installation. Topics include: horticulture science, plant identification, landscape design and installation skills.

Admissions: Must be 16 years old. Admissions: Requires COMPASS scores of Reading (49), Writing (15), and Pre-Algebra (19).

Requires official documentation of an earned high school diploma, GED, or college degree. May enroll in occupational courses upon receiving provisional or regular admission status.

EHO 100	Horticulture Science	5
EHO 101	Woody Ornamental Plant ID	6
EHO 107	Landscape Installation	3
EHO 108	Pest Management	5
EHO 112	Landscape Management	5
XXX xxx	Elective	5

**FIRE SCIENCE TECHNOLOGY  
CERTIFICATE PROGRAMS**

**Fire Fighter I (FFI1) 19**

**Griffin Campus**

This program is conducted in cooperation with Georgia Fire Academy and Georgia Firefighter Standards and Training to ensure graduates have the basic skills, knowledge and credentials to serve as firefighters in paid and volunteer fire departments. Graduates will be tested and certified at the NPQ, Fire Fighter I, level according to NFPA 1001, Standard for Fire Fighter Professional Qualifications. In addition, graduates will hold certification for CPR, Hazardous Materials First Responder Awareness Level and Fire and Life Safety Educator I. Georgia Fire Academy Certificates will be issued upon successful completion of FSC 103, Basic Fire Fighter Module I; FSC 104, Basic Fire Fighter Module II; FSC 105, Fire and Life Safety Educator, and upon successful completion of the Fire Fighter I NPQ test for the State of Georgia Basic Firefighter training course.

The Fire Fighter I certificate program will allow civilian entry for basic fire fighting training to prepare for a fire service career and provide training options for local fire services to use the program as a basic training course or pre-hiring requirement.

The Fire Fighter I Certificate will meet or exceed the training requirements of the Official Code of Georgia Annotated, Title 25, Chapter 3, Fire Department Compliance Law and Title 25, Chapter 4, Firefighter Standards and Training Act, for basic training of paid firefighters.

Admissions: Prior to entering Fire Fighter I training, the candidate shall meet the following requirements:

1. High school graduate or GED
2. Minimum of 18 years of age
3. NFPA 1582, Standard on Medical Requirements for Fire Fighters, or doctor's release
4. Physical Fitness Requirements - TBA

5. Motor Vehicle Report (MVR) with a satisfactory driving record
6. Criminal history check

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms \$80
- Medical fees .....\$100

FSC 102	Emergency Service Fundamentals	4
FSC 103	Basic Fire Fighter: Module I	6
FSC 104	Basic Fire Fighter: Module II	4
FSC 141	Hazardous Materials Operations	5

**INDUSTRIAL SYSTEMS TECHNOLOGY  
CERTIFICATE PROGRAMS**

**Industrial Electrician (ISB1) 16**

**Griffin Campus**

The Industrial Electrician certificate prepares students for employment using basic electrical maintenance skills. This program will provide knowledge, understanding, and skills in the occupational areas of Industrial Safety, Direct Current Circuits, Alternating Current Circuits, and Industrial Wiring.

Admissions: Acceptable admissions scores.

IDS 103	Industrial Wiring	6
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4

**Industrial Motor Control Technician (MTC1) 16**

**Griffin Campus**

This certificate is designed to offer Industrial Motor Controls training. This program provides instruction in DC and AC motors, basic and advanced motor controls, and variable speed drives.

Admissions: Acceptable admissions scores.

IDS 105	DC and AC Motors	3
IDS 110	Fundamentals of Motor Controls	3
IDS 113	Magnetic Starters and Braking	3
IDS 115	Two-Wire Control Circuits	2
IDS 121	Advanced Motor Controls	2
IDS 131	Variable Speed Motor Control	3

**Industrial Fluid Power Technician (IFP1) 17**

**Griffin Campus**

This certificate is designed to prepare students for employment in today's Industrial setting. This program provides learning opportunities in the following: Industrial Safety, Industrial Mechanics, Industrial Hydraulics, Industrial Pneumatics, and Pumps and Piping Systems.

Admissions: Acceptable admissions scores.

IFC 100	Industrial Safety Procedures	2
IDS 215	Industrial Mechanics	6
IDS 221	Industrial Fluid Power	7
IDS 231	Pumps and Piping Systems	2

**Programmable Control Technician I (IPC1) 17**

**Griffin Campus**

This certificate is designed to offer specialized programmable controller training to qualified industrial technicians. This program consists of instruction selected for the Industrial Systems Technology program. Topics include operational theory, systems terminology, field wiring and installation, use of PLC equipment and peripheral devices with emphasis on Programmable Logic Controller programming, installation, and troubleshooting and repair.

Admissions: Acceptable admissions scores. Does not require official documentation of an earned high school diploma, GED, or college degree.

IFC	100	Industrial Safety Procedures	2
IDS	110	Fundamentals of Motor Controls	3
IDS	141	Basic Industrial PLCs	6
IDS	142	Industrial PLCs	6

**MACHINE TOOL TECHNOLOGY CERTIFICATE PROGRAMS**

**Advanced General Machinist (GMA1) 32**

**Griffin Campus**

This certificate is designed to enhance the skills of machinist who have acquired basic machining skills and wish to become proficient at more advanced applications of the trade. The course emphasizes hands on machining using manual mills, lathes and grinding machines to produce the more complex parts needed in today's industry.

Admissions: Must have completed the Machine Tool Technology diploma or have three to five years experience at the machinist's level and acceptable admissions scores.

MCA	201	Advanced Milling I	7
MCA	203	Advanced Milling II	6
MCA	205	Advanced Lathe Operations I	7
MCA	207	Advanced Lathe Operations II	6
MCA	208	Advanced Grinding I	3
MCA	209	Advanced Grinding II	3

**CNC Setup and Programmer (5DL1) 32**

**Griffin Campus**

This program provides basic training in safe operation, set-up, and basic programming of computer numerical control machine tools. This training is designed for those students that already have a couple of years of general machine shop experience. Through this training they can gain experience on CNC equipment and upgrade current job skills. This program provides instruction in CNC mills and lathes along with manual and CAD/CAM programming. Program graduates are qualified for entry-level employment.

MCA	211	CNC Fundamentals	7
MCA	213	CNC Manual Programming	8
MCA	215	CNC Lathe Manual Programming	7
XXX	xxx	Elective(s)	10

**CNC Specialist (CNC1) 36**

**Griffin Campus**

This certificate is a series of courses used by the machinist who has completed the Machine Tool course, or has had three to five years experience in the Machine trades, and wishes to become skilled in the Computer Numerical Control field of the Machine Tool Trade. Students learn the proper and safe techniques to manually program, setup and operate CNC Mills and CNC Lathes. Students are then grounded in the area of Computer Aided Design and Computer Aided Manufacturing (CAD/CAM).

Admissions: Must have completed the Machine Tool Technology diploma or have three to five years experience at the machinist's level and acceptable admissions scores.

MCA	211	CNC Fundamentals	7
MCA	213	CNC Mill Manual Programming	7
MCA	215	CNC Lathe Manual Programming	7
MCA	217	CNC Practical Applications	4
MCA	219	CAD/CAM Programming	6
XXX	xxx	Electives	5

**Lathe Operator (5AJ1) 28**

**Griffin Campus**

This certificate prepares the student to use lathes, lathe setup and lathe tool grinding. Upon completion, the student will be able to cut threads, bore a hole to a precise measurement and cut tapers.

MCH	101	Introduction to Machine Tool	6
MCH	102	Blue Print Reading for Machine Tool	5
MCH	109	Lathe Operations I	6
MCH	110	Lathe Operations II	6
XXX	xxx	Elective	5

**Mill Operator (5AH1) 28**

**Griffin Campus**

This certificate teaches students to effectively operate milling machines. Students become proficient in blueprint reading, general mathematics, and provides the necessary skills and knowledge to obtain employment as a milling machine operator.

MCH	101	Introduction to Machine Tool	6
MCH	102	Blue Print Reading for Machine Tools	5
MCH	115	Mill Operations I	6
MCH	116	Mill Operations II	6
XXX	xxx	Elective	5

## MEDICAL SERVICES CERTIFICATE PROGRAMS

### **Central Sterile Processing Technician (SSB1) 15** **Griffin Campus**

This certificate provides didactic and clinical hands on training for entry-level employment as a Central Sterile Technician. Occupational-based instruction is implemented with International Association of Health Care Central Service Material Management (IAHCSMM) lesson plans, instructor lecture and laboratory sessions. Students are provided the necessary skills to function with national based competencies in the health care sterile supply distribution areas and related industry fields. Graduates will be prepared to sit for the Certified Registered Central Service Technician Examination after working for a period to complete required hours of hands-on experience by IAHCSMM. CSS 100 is a day-time only course. All students must have complete and passes AHS 109, SCT 100, and all learning support classes PRIOR to starting the CSS class. There is a waiting list for the CSS 100 course. To be placed on the waiting list, students must e-mail the request to CSSwaitlist@griffintech.edu. A new waiting list is generated every quarter and your name is not automatically placed on the following list. Therefore, you must place your name on the waiting list every quarter.

AHS 109	Medical Term. For Allied Health Science	3
CSS 100	Central Sterile Supply Technician	6
EMP 1000	Interpersonal Relations & Prof. Dev.	3
SCT 100	Introduction to Microcomputers	3

Approximate additional costs other than tuition, fees, and textbooks:

- Criminal Background and Drug Screen.....\$80
- CPR.....\$5
- Liability Insurance.....\$4
- Physical Exam.....Varies
- Uniforms.....\$85

### **Certified Nursing Assistant (NSP1) 16**

The Certified Nursing Assistant certificate program provides the student with information and technical skills to perform in a variety of settings. The skills learned will include such things as personal care, safety, and universal precautions. Upon completion of the certificate program, the student is prepared and encouraged to take the Certification Exam. The student will be competent for employment in a variety of areas such as hospitals, clinics, doctors' offices, and home health care.

AHS 103	Nutrition and Diet Therapy	2
AHS 104	Introduction to Health Care	3
AHS 109	Medical Term. For Allied Health Science	3
CNA 100	Patient Care Fundamentals	8

### **Direct Support Professional (DSP1) 15**

The purpose of this certificate is to prepare graduates to become certified Direct Support Professionals who provide direct support for persons with developmental disabilities and other disabilities including older adults and to provide skills

for job enhancement for those already employed in the field of support services

DCP 110	Facilitating Access to Community Living I	5
DCP 111	Facilitating Access to Community Living II	5
DCP 113	Direct Support Practicum I	2
DCP 114	Direct Support Practicum II	3

### **Electrocardiography Technician (EZP1) 34** **Griffin Campus**

The Electrocardiographic Technician Certificate program is intended to provide students with the workplace skills necessary to perform and evaluate 12-lead Electrocardiographs and telemetry surveillance in hospitals and cardiology offices in order to assist physicians in the diagnosis and monitoring of the heart. Students will be provided an in-depth knowledge of principles, practices, standards, and techniques used in the work place. Students will be able to demonstrate skills in accordance with the policies and procedures in the following areas: Basic cardiovascular anatomy and physiology, ECG techniques and recognition, and electrophysiology.

Approximate additional costs other than tuition, fees, and textbooks:

- Immunizations/Physical.....\$40
- Uniforms.....\$50
- Liability Insurance.....\$4

ENG 1010	Fundamentals of English I	5
MAT 1012	Foundations of Mathematics	5
PSY 1010	Basic Psychology	5
AHS 1010	Introduction to Anatomy and Physiology	5
AHS 109	Medical Terminology for Health Science	3
ECG 103	Introduction to Electrocardiography	3
ECG 105	Electrocardiography Practicum	8



**Health Care Assistant (5CJ1)**  
**Griffin Campus and Flint River Campus and**  
**Health Care Science (HHS1)**  
**Griffin Campus**

The purpose of this certificate is to prepare graduates to enter the workforce or pursue further education in a variety of health care fields.

The general education component develops students' written and oral communication skills and computational skills.

The science and occupational courses serve as a foundation for specialized study in selected allied health fields or for workforce entry.

Students will be placed in the Health Care Assistant program who plan to complete the following diplomas:

- Practical Nursing
- Surgical Technology

Students will be placed in the Health Care Science program who plan to complete the following degrees:

- Surgical Technology
- Radiologic Technology
- Health Information Technology
- Respiratory Care Technology

<b>Health Care Assistant (5CJ1)</b>			
<b>(For Diploma programs)</b>			<b>44 - 59</b>
ENG	1010	Fundamentals of English I	5
MAT	1012	Foundations of Mathematics	5
PSY	1010	Basic Psychology	5
AHS	1010	Introduction to Anatomy & Physiology	5
AHS	104	Introduction to Health Care	3
AHS	109	Medical Terminology	3
SCT	100	Introduction to Microcomputers	3
XXX	xxx	Occupational Courses	15-30*

<b>Health Care Science (HHS1)</b>			
<b>(For Degree programs)</b>			<b>48 - 58</b>
ENG	1101	Composition and Rhetoric	5
ENG	1102	Literature and Composition <b>OR</b>	5
HUM	1101	Introduction to Humanities	(5)
MAT	1111	College Algebra <b>OR</b>	5
MAT	1101	Mathematical Modeling	(5)
PSY	1101	Introductory Psychology	5
SCT	100	Introduction to Microcomputers	3
SPC	1101	Public Speaking	5
XXX	xxx	Science Courses	10-20*
XXX	xxx	Occupational Courses	10-20*

**\* Science and Occupational Courses cannot exceed a total of 30 credit hours.**

- An approved list of Science Courses and Occupational Courses are listed.
- The Hope Grant will pay a maximum of 95 attempted quarter hours. The Hope Scholarship will pay a maximum of 190 attempted quarter hours. For additional information on Financial Aid, please visit the Southern Crescent Technical College website or call Financial Aid at (770) 228-7368.

- Students in this category should be aware of the total number of credit hours required for graduation from their diploma or degree program of study.

*Health Care Assistant & Health Care Science*  
*Occupational Course options*  
 (For both Health Care Assistant and Health Care Science)

Note: Every Occupational Course, except for the BUS and MAS courses, requires approval from the course's program coordinator.

BUS	226	Medical Office Billing/Coding/Insurance	5
*BUS	236	Advanced Medical Coding	3
(* Students who earn a grade of "C" or higher in MAS 151, MAS 152, and MAS 153 may substitute the aforementioned courses for BUS 236)			
CNA	100	Patient Care Fundamentals	8
CSS	100	Central Sterile Supply Technician	6
ECG	103	Intro to Electrocardiography	3
ECG	105	Electrocardiography Practicum	8
HCT	110	Hemodialysis Patient Care	10
HCT	120	Hemodialysis Practicum	5
MAS	112	Human Disease	5
MAS	151	Medical Procedures Coding I	4
MAS	152	Medical Procedures Coding II	4
MAS	153	Physicians' Procedural Coding	3
PHL	103	Introduction to Venipuncture	4
PHL	105	Clinical Practice	8
*RTT	301	Introduction to Polysomnography	4
*RTT	302	Polysomnography I	5
*RTT	303	Polysomnography II	5
*RTT	310	Clinical Practice I	2
*RTT	311	Clinical Practice II	2

(\* To enroll in the RTT courses above, the student must be a Certified Respiratory Therapist (CRT) or Registered Respiratory Therapist (RRT).)

*Science Course options*  
 (Only for Health Care Science)

AHS	104	Introduction to Health Care	3
AHS	109	Medical Term for Allied Health Science	3
BIO	1111	Biology I	5
BIO	2113	Anatomy and Physiology I	5
BIO	2114	Anatomy and Physiology II	5
BIO	2117	Introductory Microbiology	5
CHM	1111	Chemistry I	5
PHY	1110	Introductory Physics	5

**Hemodialysis Patient Care Specialist (HED1) 21**

**Griffin Campus**

This certificate program is a sequence of courses that provide training for students entering the renal replacement therapy phase of the Nephrology field. This program also prepares students with basic nursing, office, and laboratory skills.

AHS 104	Introduction to Health Care	3
SCT 100	Introduction to Microcomputer	3
HCT 110	Hemodialysis Patient Care	10
HCT 120	Hemodialysis Practicum	5

**Patient Care Technician (TTP1) 39**

**Flint River Campus**

The Patient Care Technician technical certificate of credit serves as an admission step for the Practical Nursing diploma program as well as an entry-level certification to secure employment. Patient Care Technician students are accepted every quarter.

ENG 1010	Fundamentals of English I	5
MAT 1012	Foundations of Mathematics	5
PSY 1010	Basic Psychology	5
SCT 100	Introduction to Microcomputers	3
AHS 1011	Anatomy & Physiology	5
AHS 103	Nutrition and Diet Therapy	2
AHS 104	Introduction to Health Care	3
AHS 109	Medical Terminology	3
CNA 100	Patient Care Fundamentals	8

**Phlebotomy Technician (PYP1) 20**

**Griffin Campus**

A phlebotomist is trained in the techniques of drawing blood and in preparing and setting up laboratory blood tests. This technical certificate introduces the student to the anatomy and physiology of the human body and to the medical terminology needed to work as a phlebotomist. Class and lab hours are spent in venipuncture training, which is reinforced through clinical practice as a student in physicians' offices and hospitals.

AHS 1011	Anatomy and Physiology	5
AHS 109	Medical Term. For Allied Health Science	3
PHL 103	Introduction to Venipuncture	4
PHL 105	Clinical Practice	8

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms ..... \$50
- Liability insurance ..... \$11.50

**Polysomnography Technician (PSN1) 18**

**Griffin Campus**

This course is designed to provide both didactic and laboratory training for entry-level personnel in the basics of Polysomnographic Technology. Students will become familiar with medical terminology, instrumentation setup and calibration, recording and monitoring techniques, documentation, professional issues, and patient technologist interactions related to Polysomnographic Technology. Laboratory sessions will provide practical experience in the skills required of an entry-level Polysomnographic Technologist. Program graduates are eligible to sit for the Comprehensive Registry Exam in Polysomnographic Technology (RPSGT).

Admissions: Must be a Certified Respiratory Therapist (CRT) or Registered Respiratory Therapist (RRT).

RTT 301	Introduction to Polysomnography	4
RTT 302	Polysomnography I	5
RTT 303	Polysomnography II	5
RTT 310	Clinical Practice I	2
RTT 311	Clinical Practice II	2

**PARAMEDIC TECHNOLOGY  
CERTIFICATE PROGRAMS**

**Emergency Medical Technician – Basic (EMB1) 20**

**Griffin Campus**

The Emergency Medical Technician (Basic) technical certificate is intended to provide the entry level component of training for students to receive initial Emergency Medical Technician Certification in Georgia. Students who complete this program will be prepared to take the Emergency Medical Technology Basic national exam.

Admissions: Acceptable admissions scores and must be 18 years old, have a valid Georgia driver's license, have a high school diploma or GED, and submit required medical forms, national criminal background check and drug screen.

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms.....\$80
- Criminal Background & Drug Screen..... \$90

Other required out-services:

- Registry test fee.....\$200

EMS 1101	Introduction to the EMT Profession	4
EMS 1103	Patient Assessment for the EMT	2
EMS 1105	Airway Management for the EMT	2
EMS 1107	Medical & Behavioral Emergencies for the EMT	3
EMS 1109	Assessment & Management Across the Lifespan for the EMT	2
EMS 1111	Trauma Emergencies & WMD Response	4
EMS 1113	Clinical Applications for the EMT Basic	1
EMS 1115	Practical Applications for the EMT-Basic	2

## Emergency Medical Technician – Intermediate (EM01)

### Griffin Campus

This program covers both the U.S. Department of Transportation 1985 Emergency Medical Technician-Intermediate Curriculum and the 1994 Emergency Medical Technician-Basic Curriculum. The EMT-I Program is designed to provide additional training and increased knowledge and skills in specific aspects of advanced life support above the basic level. Successful completion of the program allows the graduate to take the National Registry of Emergency Medical Technician EMT-I85 certification examination and receive Georgia certification.

**Admissions:** Acceptable admissions scores and must be 18 years old, have a valid Georgia driver's license, have a high school diploma or GED, and submit required medical forms, national criminal background check and drug screen.

Approximate additional costs other than tuition, fees, and textbooks:

- Uniforms .....\$80
- Criminal Background & Drug Screen .....\$90

Other required out-services:

- Registry test fee .....\$200

EMS	1101	Introduction to the EMT Profession	4
EMS	1103	Patient Assessment for the EMT	2
EMS	1105	Airway Management for the EMT	2
EMS	1107	Medical & Behavioral Emergencies for the EMT	3
EMS	1109	Assessment & Management Across the Lifespan for the EMT	2
EMS	1111	Trauma Emergencies & WMD Response	4
EMS	1113	Clinical Applications for the EMT Basic	1
EMS	1115	Practical Applications for the EMT-Basic	2
EMS	1201	Pharmacology and Shock/Trauma for the EMT-Intermediate I	3
EMS	1203	Clinical Apps for the EMT-Inter I	1
EMS	1205	Clinical Apps for the EMT-Inter II	1
EMS	1207	Practical Applications for the EMT-Inter	2

A person must successfully complete certificate program courses (EMC 100 through EMC 119 with a grade of C or better) to be eligible to meet the requirements for EMT-Intermediate certification. Also, if one possesses a current and valid NREMT Basic EMT certification from Georgia, another state, or entity and if one successfully completes certificate program courses (EMC 110, EMC 113, EMC 116 and EMC 119), they will meet the requirements for EMT-Intermediate certification and will then be eligible to take the Emergency Medical Technology -I85 national exam.

A graduate of the EMT-Intermediate program is eligible to take the NREMT EMT-I85 certification and work on an ambulance in Georgia.

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## PLUMBING CERTIFICATE PROGRAM

### Residential Plumber (5DM1) 16

#### Flint River Campus

The Residential Plumber certificate is designed to offer students basic skills in plumbing technology, construction, maintenance, and repair. Students completing the certificate program are prepared for entry level employment as a residential plumber.

PLB	100	Intro to Construction and the Pipe Trades	2
PLB	116	Plumbing Drawings I	3
PLB	120	Pipes, Fittings & Valves I	2
PLB	122	Drainage Systems I	2
PLB	124	Water Supply Systems I	2
PLB	126	Plumbing Fixtures and Appliances I	2
PLB	128	Gas Piping, Venting, and Appliances I	3

## PRINTING AND GRAPHICS CERTIFICATE PROGRAM

### Basic Publications Designer (BPD1) 18

#### Griffin Campus

This certificate is designed to provide students with a basic understanding of, and the fundamental skills required for prepress production, desktop publishing and image editing.

PGT	102	Basic Publication Design	6
PGT	115	Image Output & Preflight	6
PGT	128	Black & White Photo Manipulation and Scanning	6

## WELDING AND JOINING CERTIFICATE PROGRAMS

### Basic Welding (BWE1) 29

The Basic Welding certificate provides graduates with the basic knowledge of the welding trade. Graduates are skilled in basic welding principles, oxyfuel cutting, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, and blueprint reading.

WLD	100	Intro to Welding Technology	6
WLD	101	Oxyfuel Cutting	4
WLD	103	Blueprint Reading I	3
WLD	104	Shielded Metal Arc Welding I	6
WLD	109	Gas Metal Arc Welding	6
WLD	110	Gas Tungsten Arc Welding	4

### Flat Shielded Metal Arc Welder (5BR1) 16

Flat Shielded Metal Arc Welder prepares students for careers in shielded metal arc welding.

WLD	100	Intro to Welding Technology	6
WLD	101	Oxyfuel Cutting	4
WLD	104	Shielded Metal Arc Welding I	6

<b>Gas Metal Arc Welder (5BW1)</b>	<b>19</b>
Gas Metal Arc Welder prepares students for careers in gas metal arc welding.	
WLD 100 Introduction to Welding Technology	6
WLD 101 Oxyfuel Cutting	4
WLD 109 Gas Metal Arc Welding (GMAW/MIG)	6
XXX xxx Program Electives	3

<b>Gas Tungsten Arc Welder (5BT1)</b>	<b>17</b>
Gas Tungsten Arc Welder introduces students to gas tungsten arc welding.	
XXX xxx Program Electives	3
WLD 100 Intro to Welding Technology	6
WLD 101 Oxyfuel Cutting	4
WLD 110 Gas Metal Arc Welding (GTAW TIG)	4

<b>SMAW Pipe Welding (WL01)</b>	<b>43</b>
<b>Flint River Campus</b>	
The SMAW Pipe Welding certificate program provides instruction in welding laboratory operations, oxyfuel cutting, and shielded metal arc welding (SMAW) using plate and pipe. The SMAW Pipe Welding certificate prepares graduates for jobs in the pipe welding fields.	
WLD 100 Intro to Welding Technology	6
WLD 101 Oxyfuel Cutting	4
WLD 104 Shielded Metal Arc Welding I	6
WLD 105 Shielded Metal Arc Welding II	6
WLD 106 Shielded Metal Arc Welding III	6
WLD 107 Shielded Metal Arc Welding IV	6
WLD 112 Preparation for Industrial Qualification	4
WLD 152 Pipe Welding	5

<b>Vertical Shielded Metal Arc Welder Fabricator (5BS1)</b>	<b>15</b>
The Vertical Shielded Metal Arc Welding Fabricator certificate prepares students for careers in shielded metal arc welding fabrication.	
WLD 105 Shielded Metal Arc Welding II	6
WLD 106 Shielded Metal Arc Welding III	6
XXX xxx Program Elective	3

## COMMUNITY SERVICE CERTIFICATE PROGRAMS

<b>Certified Customer Service Specialist (CSA1)</b>	<b>15</b>
This program provides training in the skills needed by service industries such as hospitality, retail, and other industries, in which customer contact skills are vital.	
MKT 161 Service Industry Business Environment	2
MKT 162 Customer Contact Skills	6
MKT 163 Computer Skills for Customer Service	3
MKT 164 Business Skills for the Customer Service Environment	3
MKT 165 Personal Effectiveness in Customer Service	1

<b>Certified Manufacturing Specialist (TG01)</b>	<b>15</b>
Designed by industry training professionals, this program provides the training needed for a competitive skilled workforce. The CMS program targets the unique training needs caused by changing technology and work methods.	
AMF 152 Manufacturing Organizational Principles	2
AMF 154 Manufacturing Workplace Skills	2
AMF 156 Manufacturing Production	2
AMF 158 Automated Manufacturing Skills	4
AMF 160 Representative Manufacturing Skills	5

<b>Certified Warehousing &amp; Distribution Specialist (WAD1)</b>	<b>15</b>
This program teaches students the fundamental processes of warehousing and distribution systems, provides practice in the application of technology and concepts of efficiency.	
DMM 154 Working in the Warehousing Environment	2
DMM 156 Warehousing and Workplace Practices	2
DMM 158 Warehousing and Distribution Process	3
DMM 160 Core Warehousing Skills	4
DMM 162 Warehousing Technology Skills	4

## Course Descriptions

Numbers to the right of the course name indicate: Class hours per week/Lab hours per week/Credit hours

### **ACC 1101 Principles of Accounting I 4/4/6**

(Prerequisite: Program admission) Introduces the basic concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle and accounting for a personal service business, the accounting cycle for a merchandising enterprise, and cash control. Laboratory work demonstrates theory presented in class.

### **ACC 1102 Principles of Accounting II 4/4/6**

(Prerequisite: ACC 1101 with a grade of C or better.) Applies the basic principles of accounting to specific account classifications and subsidiary record accounting. Topics include: receivables, inventory, plant assets, payroll, payables, partnerships, and sales tax returns. Laboratory work demonstrates theory presented in class.

### **ACC 1103 Principles of Accounting III 4/4/6**

(Prerequisite: ACC 1102 with a grade of C or better.) Emphasizes a fundamental understanding of corporate and cost accounting. Topics include: accounting for a corporation, statement of cash flows, cost accounting, budgeting, and long term liabilities. Laboratory work demonstrates theory presented in class.

### **ACC 1104 Computerized Accounting 1/4/3**

(Prerequisite: ACC 1102, SCT 100) Emphasizes operation of computerized accounting systems from manual input forms. Topics include: equipment use, general ledger, accounts receivable and payable, payroll, cash management, and financial reports. Laboratory work includes theoretical and technical application.

### **ACC 1106 Spreadsheet Applications 1/4/3**

(Prerequisite: SCT 100) Provides instruction in the use of electronic spreadsheet software in business applications. Students become proficient in creating and modifying spreadsheets in a business environment and in printing files that meet business standards. Topics include: spreadsheet concepts, data entry and modification, analyzing data, charts and graphs, formatting data and content and managing workbooks.

### **ACC 1151 Individual Tax Accounting 4/2/5**

Provides instruction for preparation of both state and federal income tax. Topics include: taxable income, income adjustments, schedules, standard deductions, itemized deductions, exemptions, tax credits, and tax calculations.

### **ACC 1152 Payroll Accounting 4/2/5**

(Prerequisite: ACC 1101) Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include: payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers, and analyzing and journalizing payroll transactions.

### **ACC 2105 Database Applications 1/4/3**

(Prerequisite: SCT 100) Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: database concepts structuring databases, entering data, organizing data, and managing databases.

### **ACC 2120 Principles of Auditing 5/0/5**

(Prerequisite ACC 1103) Introduces the student to the auditor's responsibilities in the areas of professional standards, reports, ethics, and legal liability. Students learn about the technology of auditing, evidence gathering, audit/assurance processes, internal controls, and sampling techniques. The specific methods of auditing the revenue/receipts process, disbursement cycle, personnel and

payroll procedures, asset changes, and debt and equity are learned. Finally, procedures related to attest engagements and internal auditing are reviewed.

### **ACC 2150 Cost Accounting 4/4/6**

(Pre/Corequisite: ACC 1103) Emphasizes a thorough understanding of cost concepts, cost behavior, and cost accounting techniques as they are applied to manufacturing cost systems. Topics include: job order cost accounting, process cost accounting, and standard cost accounting.

### **ACC 2154 Personal Finance 5/0/5**

Introduces practical applications of concepts and techniques used to manage personal finance. Topics include: cash management, time value of money, credit, major purchasing decisions, insurance, investments, retirement, and estate planning.

### **ACC 2155 Legal Environment of Business 5/0/5**

(Prerequisite: Program admission) Introduces law and its relationship to business. Topics include: legal ethics, legal processes, business contracts, business torts and crimes, real and personal property, agency and employment, risk-bearing devices, and Uniform Commercial Code.

### **ACC 2156 Business Tax Accounting 4/2/5**

(Pre/Corequisite: ACC 1101, ACC 1151) Provides instruction for preparation of both state and federal partnership, corporation and other business tax returns. Topics include: organization form, overview of taxation of partnership, special partnership issues, corporate tax elections, adjustments to income and expenses, tax elections, forms and schedules, tax credits, reconciliation of book and tax income, tax depreciation methods, and tax calculations.

### **ACC 2157 Integrated Accounting Management Systems 2/8/6**

(Prerequisite: ACC 1106, ACC 1103, ACC 1104) Emphasizes use of database management packages, electronic spreadsheet packages, and accounting software packages for accounting/financial applications with more advanced systems. Topics include: creation and management of database applications, creation and management of spreadsheet applications, and creation and management of accounting integrated software systems.

### **ACC 2158 Managerial Accounting 4/4/6**

(Prerequisite: ACC 1103) Emphasizes the interpretation of data by management in planning and controlling business activities. Topics include: budgeting, capital investment decisions, price level and foreign exchange, analysis of financial statements, and internal reporting.

### **ACC 2159 Accounting Simulation 1/9/5**

(Prerequisite: ACC 1103, ACC 1104, ACC 1106, ) Develops skills for the potential accountant to effectively prepare financial statement for presentations and income tax returns. Emphasis is placed on providing students with opportunities for application and demonstration of skills associated with automated accounting. Topics include: financial statement preparation, accounting system installation, automated accounting work sheet preparation, automated accounting income tax return preparations, and job search planning.

### **ACC 2160 Advanced Spreadsheet Applications 4/2/5**

(Prerequisite: ACC 1106) Provides the fundamental, intermediate, and advanced Microsoft Excel competencies to provide user with the skills to obtain the expert user certification. Topics include: spreadsheet creation, financial statements, forecast, amortization schedules, workgroup editing and advanced features such as macros, using charts, importing and exporting data, HTML creation, formulas, Web queries, built-in function, templates, and trends and relationships.

**ACC 2167 Accounting Internship I 0/18/6**

(Prerequisite: All non-elective courses required for program completion.) Introduces the application and reinforcement of accounting and employability principles in an actual job setting. Acquaints the student with realistic work situations and provides insights into accounting applications on the job. Topics include: appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and development of productivity. The half-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, and weekly documentation or seminars and/or other projects as required by the instructor.

**ACC 2168 Accounting Internship I 0/36/12**

(Prerequisite: All non-elective courses required for program completion.) Provides in-depth application and reinforcement of accounting and employability principles in an actual job setting. Allows the student to become involved in intensive on-the-job accounting applications that require full-time concentration, practice, and follow through. Topics include: appropriate work habits, acceptable job performance, application of accounting knowledge and skills, interpersonal relations, and progressive productivity. The full-time accounting internship is implemented through the use of written individualized training plans, written performance evaluation, weekly documentation or seminars and/or other projects as required by the instructor.

**ACC 2207 Principles of Fraud Examination 5/0/5**

Students will learn the basic principles and theories of occupational fraud. The student will learn how opportunity, pressure, and rationalization link together to create the necessary elements present when fraudulent acts are committed. Fraudulent behavior can be prevented and/or detected through a variety of ways that the student will learn. There will be videos and short case studies, made available by the Association of Certified Fraud Examiners (ACFE). Topics covered include: fraud warning signals, identifying ways that firms can implement preventative measures, understanding schemes, identifying ways that firms can detect fraudulent activities.

**ACR 1000 Safety 1/0/1**

(Prerequisite: Provisional admission) Provides instruction in procedures and practices necessary for safe operation of automotive collision repair facilities. Topics include: work facility safety, work facility cleanliness, safety devices, hybrid vehicle wiring, supplemental restraint systems, grade D air systems, fire prevention and safety, and environmental safety.

**ACR 1010 Automobile Components Identification 3/1/3**

(Pre/Corequisite: Provisional admission, ACR 1000) Introduces the structural configuration and identification of the structural members of various automotive unibodies and frames. Topics include: unibody construction, frame types, stub frame types, body panels, and mechanical components.

**ACR 1020 Equipment and Hand Tools Identification 1/1/1**

(Pre/Corequisite: Provisional admission, ACR 1000) Introduces equipment and hand tools used in automotive collision repair. Topics include: safety procedures, hand tools identification, power hand tools identification, air supply systems, and hydraulic systems.

**ACR 1040 Mechanical and Electrical Systems 1/3/2**

(Pre/Corequisite: Program admission, ACR 1000, ACR 1010, ACR 1020) Introduces various mechanical and electrical systems requiring repair of damages incurred through automobile collisions. Topics include: engine accessory systems, emission control systems, air conditioning systems, braking systems, steering column damage, engine removal and replacement sequence, lighting systems, engine wiring, power accessories systems, and restraint systems.

**ACR 1050 Body Fiberglass, Plastic, and Rubber Repair Techniques 1/7/3**

(Pre/Corequisite: Program admission, ACR 1000, ACR 1010, ACR 1020) Provides instruction in non-metallic auto body repair

techniques. Topics include: cracked or splintered area repair, bonding agent usage, fiberglass, partial header panel and plastic body parts removal and replacement procedure, plastics identification, and Sheet Molded Compound (SMC) repairs.

**ACR 1060 Welding and Cutting 3/7/6**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020) Introduces welding and cutting procedures used in auto collision repair. Emphasis will be placed on MIG welding techniques. Topics include: MIG welding, oxyfuel welding, metal cutting techniques, resistance welding, unibody welding techniques, weld removal techniques, and safety procedures, and plasma arc cutting.

**ACR 1070 Trim, Accessories, and Glass 1/3/2**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020) Provides instruction in removal and replacement methods of a variety of non-structural cosmetic and safety features of the automobile. Topics include: interior and exterior trim, mirrors, weather stripping, fixed structural and non-stationary glass, interior components, fasteners, and safety procedures.

**ACR 1090 Damage Identification and Assessment 2/2/3**

(Prerequisite: ACR 1000, ACR 1010) Introduces procedures and resources used in the identification and assessment of automotive collisions damages. Topics include: assessment plan determination, damage analysis, collision estimation, service manual use, and computerized estimation.

**ACR 1100 Minor Collision Repair 1/5/2**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020) Introduces the materials and operations required to repair minor collision damage. Topics include: pick, file, and finish procedures; body repair materials identification; body fillers usage; disc grinder procedures; abrasive and sandpaper grits usage; safety procedures, and stud welders.

**ACR 1300 Sanding, Priming, and Paint Preparation 3/4/5**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020) Introduces the materials and procedures involved in preparing automobile bodies for refinishing. Topics include: featheredging; masking procedures; safety procedures; surface preparation; corrosion preventative application; primers, sealers, and primer surfacer applications; and spray gun operation and maintenance.

**ACR 1320 Special Refinishing Application 3/5/5**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020, ACR 1300) Provides instruction in the equipment, material, and techniques used in the application of special paints. Emphasis will be placed on automotive refinishing procedures. Topics include: safety equipment and procedures; paint identification; base metals preparation and priming; equipment use and maintenance; color application; original finish sealing; panel and spot repair and blending; thinners, reducers, and additives; and fiberglass, plastics, and rubber refinishing.

**ACR 2340 Urethane Enamels Refinishing Application 2/8/5**

(Pre/Corequisite: ACR 1000, ACR 1010, ACR 1020, ACR 1300) Provides instruction in the equipment, material, and techniques used in the application of urethane enamels paint. Emphasis will be placed on automotive refinishing procedures. Topics include: safety; paint identification; base metals preparation and priming; equipment use and maintenance; base coat/clear coat application; color application of solid and metallic finishes; original finish sealing; panel and spot repair and blending; thinners, reducers, and additives; and tri-coat finishing.

**ACR 2350 Tint and Match Colors 3/5/5**

(Pre/Corequisite: ACR 1000, ACR 1020, ACR 1300) Introduces methods and techniques used in the process of color matching and production. Topics include: tinting methods, gun techniques, variables adjustments, color flip-flop determination and correction, and reduction procedures.

**ACR 2360 Detailing 1/4/2**

(Pre/Corequisite: ACR 1000, ACR 1020) Introduces the methods and techniques used in detailing a refinished automotive surface. Topics include: finish analysis, color sanding, polishes and glazes, cleaning vehicle, and decals and stripes.

**ACR 2370 Paint and Refinishing Internship 0/9/3**

(Prerequisite: Completion of all required courses in Paint and Refinish specialization) Provides occupation-based learning opportunities for students pursuing the Paint and Refinishing specialization. Students will be mentored by qualified professional technicians as they experience working in the Automotive Collision Repair profession in an industry standard commercial repair facility or industry standard simulated on-campus facility. Topics include: sanding, priming, and paint preparation; special refinishing applications; urethane enamels; tint and match colors; detailing; and employability skills.

**ACT 100 Refrigeration Fundamentals 3/2/4**

(Prerequisite: Provisional admission) Introduces basic concepts and theories of refrigeration. Topics include: laws of thermodynamics, pressure and temperature relationship, heat transfer, refrigerant identification, refrigeration cycle, and safety.

**ACT 101 Principles and Practices of Refrigeration 5/5/7**

(Prerequisite: ACT 100) Introduces the use of refrigeration tools, materials, and procedures needed to install, repair, and service refrigeration systems. Topics include: refrigeration tools; piping practices; service valves; leak testing; refrigerant recovery, recycling, and reclamation; evacuation; charging; and safety.

**ACT 102 Refrigeration Systems Components 5/5/7**

(Prerequisites: ACT 100 and ACT 101) Provides the student with the skills and knowledge to install, test, and service major components of a refrigeration system. Topics include: compressors, condensers, evaporators, metering devices, service procedures, refrigeration systems, and safety.

**ACT 103 Electrical Fundamentals 5/5/7**

(Prerequisite: Provisional admission) Introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include: A/C and D/C theory, electric meters, schematics diagrams, distribution systems, electrical panels, voltage circuits, code requirements, and safety.

**ACT 104 Electric Motors 2/5/4**

(Prerequisite: ACT 103) Continues the development of skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include: diagnostic techniques, installation procedures, capacitors, types of electric motors, electric motor service, and safety.

**ACT 105 Electrical Components 3/5/5**

(Prerequisites: ACT 103) Provides instruction in identifying, installing and testing commonly used electrical components in an air conditioning system. Topics include: pressure switches, overload devices, transformers, magnetic starters, other commonly used controls, diagnostic techniques, installation procedures, and safety.

**ACT 106 Electric Control Systems and Installation 2/5/4**

(Prerequisite: ACT 105) Provides instruction on wiring various types of air conditioning systems. Topics include: control circuits, system wiring, solid state controls, servicing procedures, and safety.

**ACT 107 Air Conditioning Principles 6/4/8**

(Prerequisites: ACT 102) Introduces fundamental theory and techniques to identify major components and functions of air conditioning systems. Instruction is given on types of air conditioning systems and use of instrumentation. Topics include: types of AC systems, heat-load calculation, properties of air, psychrometrics, duct design, air filtration, and safety principles.

**ACT 108 Air Conditioning Systems and Installation 2/3/3**

(Pre/Corequisite: ACT 102, ACT 106) Provides instruction in installation and servicing of residential air conditioning systems.

Topics include: installation procedures, service, split systems, packaged systems, add-on systems, and safety.

**ACT 109 Troubleshooting Air Conditioning Systems 5/5/7**

(Pre/Corequisites: ENG 1010, ACT 108) Provides instruction in troubleshooting and repair of major components of a residential air conditioning system. Topics include: troubleshooting techniques, electrical controls, air flow, refrigeration cycle, and safety principles.

**ACT 110 Gas Heating Systems 2/8/5**

(Prerequisites: ACT 102, ACT 106, MAT 1012) Introduces principles of combustion and service requirements for gas heating systems. Topics include: service procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion, and safety.

**ACT 111 Heat Pumps and Related Systems 3/7/6**

(Pre/Corequisite: ACT 102, ACT 106) Provides instruction on the principles, application, and operation of a residential heat pump system, installation and servicing of electric heating systems, heat pumps, and related systems. Topics include: installation procedures, servicing procedures, troubleshooting, valves, electrical components, safety, geothermal ground source energy supplies, dual fuels, and safety.

**ACT 150 General Air Conditioning Internship/Practicum 0/15/5**

(Prerequisite: Successful completion of two quarters of the Air Conditioning program) Provides the student with occupational based experiences that apply completed course work skills to actual work experiences. Topics include: residential air conditioning and refrigeration applications, equipment and technology adaptability, work place productivity, safe work practices, problem solving, and employment retention skills. This is implemented in an approved occupational setting or as an in-school work simulation.

**ACT 200 Design & Application of Light Commercial A/C 3/2/4**

(Pre/Corequisites: ACT 109, ACT 111) Continues in-depth instruction on components and functions of air conditioning systems with emphasis on design and application of light commercial air conditioning systems. Topics include: refrigeration piping, hydraulic piping, pump sizing, commercial load design, air flow, codes, and safety.

**ACT 201 Light Commercial Air Conditioning Control Systems 3/2/4**

(Pre/Corequisite: ACT 200) Emphasizes the study of complex control systems on light commercial air conditioning systems. Topics include: pneumatic controls, electronic controls, electrical controls, mechanical controls, and safety.

**ACT 202 Light Commercial Air Conditioning Systems Operation 6/4/8**

(Pre/Corequisites: ACT 200) Provides in-depth study of the operation of light commercial air conditioning systems. Topics include: boiler operations, refrigeration components, energy management, codes, and safety.

**ACT 204 Residential Systems Design 4/9/8**

(Pre/Corequisites: ACT 111) Presents advanced refrigeration and electrical skills and theories. Topics include: heat gain and heat loss, duct design, zone control, equipment selection, and safety.

**ACT 205 GA State and Local Residential Air Conditioning Codes 4/0/4**

Presents advanced level residential air conditioning code concepts and theories. Topics include: local residential air conditioning codes, state residential air conditioning codes, gas piping, refrigeration piping, and safety.

**ACT 206 Air Distribution Systems for Residential Air Conditioning 3/2/4**

(Pre/Corequisites: ACT 102) Continues development of air systems concepts, theories, and skills. Emphasis will be placed on test and balance techniques and fan laws. Topics include: test and balance techniques, fan laws, and safety.

**ACT 208 Commercial Refrigeration Design 3/2/4**

(Pre/Corequisites: ACT 109, ACT 111) Provides an increased level of concepts and theory beyond ACT 102. Students are introduced to more design theory in commercial refrigeration. Topics include: refrigeration heat calculation, equipment selection, refrigeration piping, codes, and safety.

**ACT 209 Commercial Refrigeration Application 4/8/8**

(Pre/Corequisite: ACT 206) Introduces the application of fundamental theories and concepts of refrigeration. Emphasis will be placed on equipment application and installation procedures. Topics include: equipment application, installation procedures, cycle controls, energy management, and safety.

**ACT 210 Troubleshooting and Servicing Commercial Refrigeration 3/2/4**

(Pre/Corequisites: ACT 206, ACT 209) Continues to provide experience in maintenance techniques in servicing light commercial refrigeration systems. Topics include: system clearing, troubleshooting procedures, replacement of components, and safety.

**AHS 102 Drug Calculation and Administration 2/2/3** (Prerequisite: MAT 1012) Utilizes basic mathematical concepts and includes basic drug administration. Uses basic mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include: systems of measurement, calculating drug problems, resource materials usage, basic pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques, and client education.

**AHS 103 Nutrition and Diet Therapy 2/0/2**

A study of the nutritional needs of the individual. A study of the nutritional needs of the individual. Topics include: nutrients, standard and modified diets, nutrition throughout the lifespan, and client education.

**AHS 104 Introduction to Health Care 2/3/3**

(Prerequisite: Provisional admission) Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. In addition to the essential skills, students explore various delivery systems and related issues. Topics include: basic life support/CPR, basic emergency care/first aid and triage, vital signs, infection control, and blood/air-borne pathogens.

**AHS 109 Medical Terminology for Allied Health Science 3/0/3**

(Prerequisite: Provisional admission) Introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include: origins; word building; abbreviations and symbols; terminology related to the human anatomy; reading medical orders and reports; and terminology specific to the student's field of study.

**AHS 155 Epidemiology 3/0/3**

(Prerequisite: Program admission) Terminology, concepts, and principles of epidemiology are examined in order to explain the occurrence, distribution, and causative factors of diseases in human populations.

**AHS 1011 Anatomy and Physiology 5/0/5**

(Prerequisite: Program admission) Focuses on basic normal structure and function of the human body. Topics include: general plan and function of the human body; integumentary system; skeletal system; muscular system; nervous and sensory systems; endocrine system; cardiovascular system; lymphatic system; respiratory system; digestive system; urinary system; and reproductive system.

**AHS 1015 Basic Inorganic Chemistry 3/2/4**

(Prerequisite: MAT 1012 or MAT 1111) Introduces chemical concept principles, laws, and techniques applicable to the medical laboratory. Topics include: laboratory safety, fundamental principles of chemistry, weight and measures, solutions, and basic laws of chemistry.

**AMF 103 Manufacturing Processes Survey 3/3/4**

(Prerequisite: Provisional admission) Familiarizes students with the production processes a flexible manufacturing system may perform. Topics include: modern manufacturing concepts; product manufacturing stages; manufacturing specifications and quality control; industrial materials; materials testing; casting and molding processes; materials cutting; removal, and forming processes; welding and joining processes; and parts assembly.

**AMF 108 Applied Hydraulics, Pneumatics, and Mechanisms 2/3/3**

(Prerequisite: PHY1111) Emphasizes mechanical techniques for maintaining, troubleshooting, installing, and repairing drives, conveyor systems, and valves. Topics include: gas laws, pressure and force calculations, hydraulic systems vs. pneumatic systems; cylinders, pressure controls, and system controls; hydraulic and pneumatic symbology; hydraulic and pneumatic system layout; interfacing hydraulic or pneumatic systems with other systems; applied mechanisms; belt, chain, and gear drives; drive train components; valves; and conveyor systems.

**AMF 110 Introduction to Active Devices and Circuits 3/3/4**

(Prerequisites: IFC 102) Explores active device basic principles, including low frequency applications and troubleshooting. Topics include: semiconductor fundamentals, diode applications, BJT characteristics, bipolar transistor circuits, and unipolar devices.

**AMF 115 Manufacturing Control and Work Cell Interfacing 4/2/5**

(Prerequisites: AMF 110) Studies open and closed loop controls and cell level interfacing. Emphasizes human factors related to automated systems. Topics include: Process control; sensors and interfacing; fluid pressure and level measurement; fluid flow instrument; instruments for temperature measurement; instruments for mechanical measurement; pneumatic controls; cell level interfacing; automatic control systems application; and human interface issues of operator training, acceptance, and safety.

**AMF 152 Manufacturing Organizational Principles 2/0/2**

Provides students with an overview of the functional and structural composition of manufacturing organizations. Topics include: supply and demand, product flow, manufacturing operational types, structure of manufacturing organizations, manufacturing business principles, employee impact on bottom line, workplace ethics and personal values, competitive issues, and types of manufacturing processes.

**AMF 154 Manufacturing Workplace Skills 2/0/2**

Provides students with the knowledge and skills needed to succeed in the manufacturing environment. Topics include: communication skills, listening skills, team interaction, stress and change management, managing personal wellness, decision making, job interview skills for manufacturing careers.

**AMF 156 Manufacturing Production 2/0/2**

Provides students with the knowledge and skills associated with quality and productivity in the manufacturing environment. Topics include: world-class manufacturing, just-in-time manufacturing, overview of ISO-9000 quality standards, statistical process control, tools for excellence.

**AMF 158 Automated Manufacturing Skills 4/0/4**

This course provides students with an introduction to computerized process control and the operational requirements associated with automated machines in the manufacturing environment. Topics include: computers in the workplace, computer terminology, DOS and Windows operating environments, computer integrated manufacturing, robotics, inventory control systems/bar coding, basic mechanics, hand and power tools, industrial controls and electrical safety, hydraulic and pneumatic systems, manufacturing processes troubleshooting.



**AMF 160 Representative Manufacturing Skills 5/0/5**

Provides students with an introduction to representative manufacturing skills and associated safety requirements. Topics include: plant safety, materials movement equipment, blueprint reading, and precision measurements for manufacturing.

**ART 1101 Art Appreciation 5/0/5**

(Prerequisite: ENG 191 with a grade of C or better) Explores the analysis of well-known works of visual arts, their composition, and the relationship to their periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research. Topics include: the recreative critical process, the themes of art, the formal elements of design, and the placing of art in the historical context, writing analysis, practice revision, and research about a work of visual arts.

**AUT 120 Introduction to Automotive Technology 2/3/3**

(Prerequisite: Provisional admission) Introduces basic concepts and practices necessary for safe and effective automotive shop operation. Topics include: safety procedures; legal/ethic responsibilities; measurement; machining; hand and power tools; use of service publications; business and shop organization; management and work flow systems; and overview of automotive systems.

**AUT 122 Electrical and Electronic Systems 4/6/6**

(Prerequisite: AUT 120) Introduces automotive electricity. Introduces automotive electricity. Topics include: general electrical system diagnosis; lighting system diagnosis and repair; gauges, warning devices, and driver information system diagnosis and repair; horn and wiper/washer diagnosis and repair; accessories diagnosis and repair.

**AUT 124 Battery, Starting, and Charging Systems 2/6/4**

(Prerequisite: AUT 122) Emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators, and regulators. Topics include: Emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators, and regulators. Topics include: battery diagnosis and service; starting system diagnosis and repair; charging system diagnosis and repair.

**AUT 126 Engine Principles of Operation and Repair 3/9/6**

(Prerequisite: AUT120) Introduces automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques. Topics include: general diagnosis of engines; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

**AUT 128 Fuel, Ignition, and Emission Systems 5/6/7**

(Prerequisites: AUT 122, AUT 124, AUT 126) Introduces fuel, ignition, and exhaust systems theory, diagnosis, repair, and service for vehicles with carburetion and fuel injection systems. Topics include: general engine diagnosis; ignition system diagnosis and repair; fuel, air induction, and exhaust systems diagnosis and repair; positive crankcase ventilation; exhaust gas recirculation; engine related service.

**AUT 130 Automotive Brake Systems 3/3/4**

(Prerequisite: AUT 122) Introduces brake systems theory and its application to automotive systems. Topics include: hydraulic system diagnosis and repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous ( wheel bearings, parking brakes, electrical, etc.) diagnosis and repair.

**AUT 132 Suspension and Steering System 3/3/4**

(Prerequisite: AUT 122) Introduces students to principles of steering, suspension, wheel alignment, electronic steering, and electronic

active suspension. Topics include: steering systems diagnosis and repair; suspension systems diagnosis and repair; wheel alignment diagnosis, adjustment and repair; wheel and tire diagnosis and repair.

**AUT 134 Drivelines 2/6/4**

(Prerequisite: AUT122) Introduces basics of rear-wheel drive, front-wheel drive, and four-wheel drive drivelines related operation, diagnosis, service and related electronic controls. Topics include: drive train operation and diagnosis; front-wheel drive; rear-wheel drive; 4x4 operation, modes, and diagnosis; and limited slip differentials.

**AUT 138 Manual Transmission/Transaxle 3/3/4**

(Prerequisite: AUT 122) Introduces basics of front and rear wheel drive. Clutch operation, diagnosis, and service is included. Electronic controls related to transmission/transaxle operation are discussed. Topics include: clutch diagnosis and repair; transmission/transaxle diagnosis and repair

**AUT 140 Electronics Engine Control System 6/3/7**

(Prerequisite: AUT 128) Introduces concepts of electronic engine control. Topics include: computerized engine controls diagnosis and repair ; intake air temperature controls; early fuel evaporation (intake manifold temperature) controls; evaporative emissions controls.

**AUT 142 Climate Control Systems 5/3/6**

(Prerequisite: AUT 122) Introduces the theory and operation of automotive heating and air conditioning systems. Students attain proficiency in inspection, testing, service, and repair of heating and air conditioning systems and related components. Topics include: a/c system diagnosis and repair; refrigeration system component diagnosis and repair; heating, ventilation, and engine cooling systems diagnosis and repair; operating systems and related controls diagnosis and repair; refrigerant recovery, recycling, and handling

**AUT 144 Introduction to Automotive Transmissions 3/3/4**

(Prerequisites: AUT 122) Introduces student to basic transmission/transaxle theory, inspection, and service procedures. Focuses on minor in-car adjustments, replacements, and repair. Topics include: general transmission and transaxle diagnosis; transmission and transaxle maintenance and adjustment; in-vehicle transmission and transaxle repair.

**AUT 210 Automatic Transmission Repair 5/6/7**

(Prerequisite: AUT 144) Introduces automatic transmission hydraulic/mechanical operations, transmission repair, and automatic transmission hydraulic/mechanical diagnosis. Topics include: removal, disassembly, and reinstallation; oil pump and converter; gear train, shafts, bushings and case; friction and reaction units.

**AUT 212 Advanced Electronic Transmission Diagnosis 2/3/3**

(Prerequisite: AUT 210) Introduces automatic transmission hydraulic/mechanical, and electronic diagnosis and repair. Topics include: electronically controlled automatic transmission, automatic transmission electrical and electronic problem diagnosis and repair.

**AUT 214 Advanced Electronic Controlled Brake System Diagnosis 3/3/4**

(Prerequisite: AUT 130) Introduces anti-lock brake system (ABS) to include ABS components and ABS operation, testing, and diagnosis. Topics include: general brake and ABS systems, diagnosis and testing, light truck rear anti-lock brake system (RWAL); four-wheel ABS system location, components, operations.

**AUT 216 Advanced Electronic Controlled Suspension and Steering Systems 3/3/4**

(Prerequisite: AUT 132) Introduces principles of electronic suspension, electronic steering, and electronic active suspension. Topics include: electronic steering systems diagnosis and adjustment/repair, and diagnosis of electrical and electronic controlled steering and suspension systems.

**AUT 218 Advanced Electronic Engine Control Systems 3/3/4**

(Prerequisite: AUT 140) Introduces On-Board Diagnostics II (OBD II), California Air Research Board (CARB) requirements and monitoring technology, diagnostic trouble code definitions, and essentials of advanced driveability diagnosis and data interpretation using a scanner. Topics include: OBD II standards; monitoring capabilities; OBD II diagnostics; OBD II terms.

**AUT 220 Automotive Technology Internship 0/18/6**

(Prerequisite: AUT128) Provides student work experience in the occupational environment. Topics include: application of automotive technology knowledge and skills, appropriate employability skills, problem solving, adaptability to job setting, progressive productivity, and acceptable job performance.

**BAF 100 Introduction to Banking and Finance 5/0/5**

(Prerequisites: Program admission) Introduces the student to the history, documents, and operational functions of the banking industry. Topics include: history, documents, operations, specialized services and electronic banking.

**BAR 100 Introduction to Barber Styling 3/2/3**

(Prerequisites: Program admission) Introduction to Barber Styling is designed to give an overview of the barbering profession. Topics include: Barbering history, personality development, professional barbering ethics, and professional barbering image, safety, and reception and telephone techniques.

**BAR 101 Introduction to Barbering/Styling Implements 3/2/2**

(Prerequisites: Provisional admission) Students are taught the fundamentals of each barber/styling implement. Emphasis will be placed on the maintenance and care of each implement. Topics include: nomenclature, types and sizes, proper use and care, and maintenance.

**BAR 102 Science: Sterilization, Sanitation, and Bacteriology 3/0/3**

(Prerequisites: BAR 100, BAR 101) Introduces fundamental theories and practices of bacteriology, sterilization, sanitation, safety, and the welfare of the barber/stylist and patron. Topics include: sterilization, sanitation, safety, bacteriology, and Hazardous Duty Standards Act compliance.

**BAR 103 Introduction to Haircutting 10/2/7**

(Prerequisites: BAR 102) Introduces the theory and skills necessary to apply basic haircutting techniques. Safe use of haircutting implements will be stressed. Topics include: preparation of patron, haircutting terminology, safety and sanitation, implements, and basic haircutting techniques.

**BAR 104 Shampooing 3/2/2**

(Prerequisites: Program admission)

Introduces the fundamental theory and skills required to shampoo hair. Laboratory training includes shampooing a live model. Topics include: shampoo chemistry, patron preparation, and shampoo procedures.

**BAR 105 Haircutting/Introduction to Styling 9/2/4**

(Prerequisites: BAR 104; Corequisites: BAR 103)

Continues the theory and application of haircutting techniques and introduces hairstyling. Topics include: introduction to styling, client consultation, head and hair analysis, style cutting techniques, and implements for style cutting and tapering techniques.

**BAR 106 Shaving 6/2/3**

(Prerequisites: BAR 103) Introduces the theory and skills necessary to prepare and shave a patron. Simulated shaving procedures will precede practice on live models. Topics include: patron preparation, beard preparation, shaving techniques, once-over shave techniques, and safety precautions.

**BAR 107 Science: Anatomy and Physiology 5/0/5**

(Prerequisites: Program admission) Develops knowledge of the function and care of the scalp, skin, and hair. Emphasis is placed on the function, health, and growth of these areas. Topics include: cells, skeletal system, muscular system, nervous system, circulatory system, and related systems.

**BAR 108 Color Theory 5/2/4**

(Prerequisites: MAT 1012; Corequisites: BAR 107)

Introduces the fundamental theory of color, predispositions tests, color selection, and color application. Topics include: basic color concepts, skin reactions, the color wheel, and color selection and application.

**BAR 109 Chemical Restructuring of Hair I 3/2/2**

(Prerequisites: MAT 1012; Corequisites: BAR 107)

Introduces the chemistry and chemical reactions of permanent wave solutions and relaxers. Topics include: permanent wave techniques, safety procedures, chemical relaxer techniques, and permanent wave and chemical relaxer, and application procedures on manikins.

**BAR 110 Haircutting/Styling 12/2/5**

(Prerequisites: BAR 105) Continues the theory and application of haircutting and styling techniques. Topics include: elevation and design cutting, introduction to hairpieces, blow-dry styling, thermal waving, curling, and non-chemical style.

**BAR 112 Chemical Restructuring of Hair II 13/0/7**

(Prerequisites: BAR 109) Provides instruction in the application of permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Application of perms and relaxers on live models included. Topics include: permanent wave application, hair relaxer application, timed permanent wave, timed relaxers application, safety precautions, and Hazardous Duty Standards Act compliance.

**BAR 113 Structure of Skin, Scalp, and Hair 3/1/2**

(Prerequisites: BAR 107) Introduces the theory, procedures, and products used in the care and treatment of the skin, scalp, and hair. Topics include: treatment theory, basic corrective hair and scalp treatments, plain facial, products and supplies, and disease and disorders.

**BAR 114 Skin, Scalp, Hair, and Facial Treatments 7/0/3**

(Prerequisites: BAR 113) Provides instruction on the theory and application of techniques in the treatment of the skin, scalp, and hair. Emphasis will be placed on work with live models. Topics include: implements, products and supplies, diseases and disorders, corrective hair and scalp treatments, facial procedures and manipulations, and safety precautions.

**BAR 116 Advanced Haircutting/Styling 9/2/4**

(Prerequisites: BAR 106, BAR 110, BAR 112) Continues the theory and application of haircutting, styling, and shaving techniques. Topics include: advanced haircutting; use of clippers, shears, and razor; hair chemical texturizing/styling; permanent waving/styling; shaving techniques; and beard trimming.

**BAR 118 Color Applications 3/2/2**

(Prerequisites: BAR 108) Presents the application of temporary, semi-permanent, and permanent hair coloring products. Topics include: mustache and beards, coloring products, safety precautions and tests, mixing procedures, color selection and application.

**BAR 120 Barber/Styling Practicum 9/0/3**

(Prerequisites: All Occupational Courses)

Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course will be met in a laboratory setting at the College. Topics include: haircutting/styling, hairstyling texturizing, shaving, beard trimming, thermal waving, hairpiece fitting and styling, safety precautions, and licensure preparation.

**BAR 121 Shop Management/Ownership 5/2/4**

(Prerequisites: BAR 116) Emphasizes the steps involved in opening and operating a privately owned cosmetology salon or barber/styling shop. Topics include: planning a salon/shop, business management, retailing, public relations, sales skills, client retention, and entrepreneurship.

**BFM 103 Fundamentals of Structural Maintenance 2/8/6**

(Prerequisites: MAT 101) Provides introductory skills in basic building repair and maintenance. Topics include: carpentry and cabinet repairs, tile and floor repairs, paints and finishes, lab and shop safety, building codes, handicap accessibility, conduit installation, and waterproofing.

**BFM 105 Fundamentals of Plumbing 1/4/3** (Prerequisites: MAT 101) Provides introductory skills in basic plumbing. Topics include: basic pipe sizing, fitting identification and terminology, pipe joining, valve identification, plumbing repairs, and lab and shop safety.

**BIO 1111 Biology I 4/3/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing) Provides an introduction to basic biological concepts with a focus on living cells. Topics include: chemical principles related to cells; cell structure and function; energy and metabolism; cell division; protein synthesis; genetics; biotechnology; and use of basic laboratory techniques and equipment.

**BIO 2113 Anatomy and Physiology I 4/3/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing.) Introduces students to the anatomy and physiology of the human body. Emphasis is placed on the development of a systemic perspective of anatomical structures and physiological processes. Topics include: body organization, cell structure and functions, tissue classifications, the integumentary system, the skeletal system; the muscular system; the nervous and sensory systems.. Laboratory experience supports classroom learning.

**BIO 2114 Anatomy and Physiology II 4/3/5**

(Prerequisite: BIO 2113 with a grade of C or better) Continues the study of the anatomy and physiology of the human body. Topics include: the endocrine system; cardiovascular system; the blood and lymphatic system; immune system; respiratory system; digestive system; urinary system; and reproductive system. Laboratory experience supports classroom learning.

**BIO 2117 Introductory Microbiology 3/4/5**

(Pre/Corequisite: BIO 2113 with a grade of C or better) Provides students with a foundation in basic microbiology with emphasis on infectious diseases. Topics include: characterization, classification, and description of micro-organisms; use of compound microscope; morphology and fine structure of bacteria; gram positive and gram negative bacteria; reproduction and growth of bacteria; viral diseases; host-parasite relationship; host defense mechanisms; epidemiology; antimicrobial and chemotherapeutic agents; control of microorganisms; and laboratory safety.

**BUS 1100 Introduction to Keyboarding 1/4/3**

This course introduces the touch system of keyboarding placing emphasis on correct techniques. Topics include: computer hardware, computer software, file management, learning the alphabetic keyboard, the numeric keyboard and keypad, building speed and accuracy, and proofreading. Students attain a minimum of 25 GWAM (gross words a minute) on 3-minute timings with no more than 3 errors.

**BUS 1120 Document Proofreading and Editing 1/4/3**

(Prerequisite: BUS1130 with a grade of C or better, ENG 1010 with a grade of C or better or, ENG1101 with a grade of C or better.) Emphasizes proper proofreading and editing as applied to business documents. Topics include: applying proofreading techniques and proofreaders' marks with business documents; proper content,

clarity, and conciseness in business documents; and business document formatting.

**BUS 1130 Document Processing 2/8/6**

(Prerequisite: Ability to key at least 25 wpm or BUS 1100 with a grade of C or better; Corequisite: SCT 100 with a grade of C or better) Reinforces the touch system of keyboarding, placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents. Topics include: reinforcing correct keyboarding technique, building speed and accuracy, formatting business documents, language arts, proofreading, and work area management.

**BUS 1140 Word Processing 2/6/5**

(Prerequisite: SCT 100 with a grade of C or better) Emphasizes an intensive use of word processing software to create and revise business documents. Topics include: creating, organizing, and formatting content; collaborating on documents; formatting and managing documents.

**BUS 1150 Database Applications 1/4/3**

(Prerequisite: SCT 100) Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: database concepts, structuring databases, entering data, organizing data, and managing databases.

**BUS 1160 Desktop Publishing I 1/4/3**

(Prerequisite: SCT 100 with a grade of C or better) Emphasizes intensive use of desktop publishing (DTP) software to create publications such as letterheads, resumes, fliers, posters, brochures, reports, newsletters, and business cards. Topics include: DTP concepts, operation of DTP software, publication page layout, basic graphic design, and practical applications.

**BUS 1170 Electronic Communication Applications 2/6/5**

(Prerequisite: SCT 100 with a grade of C or better) Provides an overview of electronic communications as used in an office setting. Topics include: email fundamentals and management, using the Internet, system user security, and wireless/mobile computing and emerging technologies.

**BUS 1200 Machine Transcription 1/4/3**

(Prerequisite: BUS1130 with a grade of C or better, ENG1010 with a grade of C or better, SCT 100 with a grade of C or better) Emphasizes transcribing mailable documents from dictation using word processing software. Topics include: equipment and supplies maintenance and usage, work area management, transcription techniques, productivity and accuracy, proofreading, and language arts skills.

**BUS 1210 Electronic Calculators 1/4/3**

(Prerequisite: Program admission) Develops skill in the use of electronic calculators to interpret, solve, and record results of various types of problems involving the four arithmetic processes. Topics include: machine parts and features, touch system techniques, and arithmetic applications.

**BUS 1240 Office Procedures 2/6/5**

(Prerequisite: SCT 100 with a grade of C or better; Corequisite: BUS1130 with a grade of C or better) Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, workplace mail, records management, travel/meeting arrangements, electronic mail, and workplace documents.

**BUS 1300 Introduction to Business 5/0/5**

(Prerequisite: Program admission) Introduces organization and management concepts of the business world and in the office environment. Topics include: business in a global economy, starting and organizing a business, enterprise management, marketing strategies and financial management.

**BUS 2110 Advanced Word Processing 2/6/5**

(Prerequisite: BUS1140 with a grade of C or better) Course provides instruction in advanced word processing. Topics include: advanced features of formatting and organizing content, advanced features of collaborating on documents and customizing word processing software.

**BUS 2120 Spreadsheet Applications 1/4/3**

(Prerequisite: SCT 100 with a grade of C or better) Provides instruction in the use of electronic spreadsheet software in business applications. Students become proficient in creating and modifying spreadsheets in a business environment and in printing files that meet business standards. Topics include: spreadsheet concepts, data entry and modification, analyzing data, charts and graphs, formatting data and content, and managing workbooks.

**BUS 2130 Advanced Spreadsheet Applications 1/4/3**

(Prerequisite: BUS 2120 with a grade of C or better) Provides a study of the advanced features of creating and modifying electronic spreadsheets. Topics include integration with other applications, using templates, printing workbooks, working with named ranges, working with toolbars, using macros, auditing a worksheet, formatting data, using analysis tools, and collaborating with workgroups.

**BUS 2150 Presentation Applications 1/4/3**

(Prerequisite: SCT 100 with a grade of C or better) This course provides a study of creating, modifying and delivering presentations. Topics include: creating a presentation, formatting content, collaborating with others, managing a presentation, creating output and delivering a presentation.

**BUS 2210 Applied Office Procedures 2/6/5**

(Prerequisite: BUS1130, BUS1240, BUS1140, BUS2120; Corequisite: BUS 2200 or ACC1101, BUS1120, BUS1170; all with a grade of C or better) This course focuses on applying knowledge and skills learned in all prior courses taken in the program. Topics include: communications skills, telecommunications skills, records management skills, office equipment/supplies, and integrated programs/applications.

**BUS 2240 Business Administrative Assistant Internship I 0/18/6**

(Prerequisite: Successful completion of all required coursework) Provides student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

**BUS 2250 Business Administrative Assistant Internship II 0/36/12**

(Prerequisite: Must be in last quarter; may take concurrently with last quarter coursework) Provides student work experience in an off-campus business office. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

**BUS 2320 Medical Document Processing 1/9/5**

(Prerequisite: AHS 109, BUS1130, ENG1010; all with a grade of C or better) Provides experience in medical machine transcription working with the most frequently used medical reports. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, and pronunciation.

**BUS 2330 Advanced Medical Document Processing/Transcription 1/9/5**

(Prerequisite: BUS1130, ENG1010, AHS 1011, AHS 109, BUS 2320; all with a grade of C or better) Continues the development of speed and accuracy in the transcription of medical reports with

emphasis on a variety of medical specialization. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, pronunciation, and medical transcription work ethics.

**BUS 2370 Medical Office Billing/Coding/Insurance 3/5/5**

(Prerequisite: BUS1130, AHS 109, AHS 1011; all with a grade of C or better) Provides an introduction to medical coding skills and applications of international coding standards for billing of health care services. Provides the knowledge and skills to apply coding of diagnostic statements and procedures for billing purposes. Provides an introduction to medical coding as it relates to health insurance. Topics include: International classification of diseases, code book formats; coding techniques; formats of the ICD and CPT manuals; health insurance; billing, reimbursement, and collections; and managed care.

**CAR 101 Safe Use of Hand and Power Tools 2/4/3**

(Prerequisite: Provisional admission) Provides instruction in the use of hand and power tools. Emphasis will be placed on the safe use of each tool covered. Topics include: layout and measuring tools, sawing tools, shaping and cutting tools, fastening tools, drilling and boring tools, and finishing tools.

**CAR 103 Materials 3/0/3**

(Prerequisite: Provisional admission) Introduces the fundamental array of building materials used in residential and commercial construction. Topics include: fasteners, wood products, finishing materials, and manufactured products.

**CAR 105 Print Reading 5/0/5**

(Prerequisite: Provisional admission) Introduces the reading and interpretation of prints and architectural drawings. Topics include: types of plans, scaling, specifications interpretation, conventions, and schedules.

**CAR 107 Site Layouts, Footings, and Foundations 4/3/5**

(Prerequisite: CAR 105) Introduces the concepts and practices of basic site layout, footings and foundation construction. Students will use layout equipment for on site laboratory practice. Topics include: zoning restrictions and codes, batter board installation, builders levels, squaring methods, types of footings, production of footings, plot plans interpretation, materials estimation, foundation types, foundation forms, edge forms, waterproofing, and soil testing and excavation.

**CAR 110 Floor Framing 2/3/3**

(Prerequisites: CAR 101, CAR 103, CAR 105) Introduces materials identification, materials estimation, and installation procedures of floor and sill framing members. On site construction procedures will be emphasized. Topics include: on size selection of girder and joists, materials estimation, and layout and installation procedures.

**CAR 111 Wall Framing 2/3/3**

(Prerequisites: CAR 101, CAR 103, CAR 105) Provides instruction in identification, materials estimation, and framing production of wall and partition members. Emphasis will be placed on practical application of competencies. Topics include: estimation and computation procedures, rough opening layouts, construction of wall members, and sheathing installation.

**CAR 112 Ceiling and Roof Framing 4/6/6**

(Prerequisites: CAR 101, CAR 103, CAR 105) Introduces terminology, concepts, and procedures used in identification, estimation, layout, and installation of ceiling and roof framing systems. Topics include: identification of ceiling systems, ceiling system materials estimation, ceiling system layout procedures, scaffolding and ladder safety, ceiling system installation procedures, roof system estimation and layout, roof system installation and decking, and vent systems.

**CAR 114 Roof Coverings 1/4/2**

(Prerequisites: CAR 101, CAR 103,) Introduces identification, estimation, and installation of roof covering materials. Topics include: materials identification, estimation, layout procedures, installation, and safety precautions.

**CAR 115 Exterior Finishes and Trim 2/8/5**

(Prerequisite: CAR 101, CAR 103, CAR) Introduces materials identification, estimation, and installation procedures for exterior finish and trim materials to include window and door units. Emphasis will be placed on competency development through laboratory practice. Topics include: doors and windows, siding types, materials identification, materials estimation, and installation procedures.

**CAR 117 Interior Finishes I 1/9/4**

(Prerequisites: CAR 101, CAR 103, CAR 105) Introduces procedures for identification, estimation, and installation of interior trim. Topics include: insulation methods identification, insulation material handling, insulation application methods, thermal and sound control, wall and ceiling materials, estimation, gypsum wallboard installation and finishing procedures, wall and ceiling materials identification, paneling installation and acoustical ceiling tile.

**CAR 118 Interior Finishes II 1/9/4**

(Prerequisite: CAR 101, CAR 103, CAR 105) Introduces procedures for identification, estimation and installation of interior trim. The course also introduces various interior door units, door locks, trim, and installation procedures. Topics include: trim terminology, materials identification, materials estimation, installation procedures, door frame installation, door hanging procedures, split jamb pre-hung unit installation, and solid jamb pre-hung unit installation procedures.

**CAR 119 Interior Finishes III 1/6/3**

(Prerequisite: CFC100, CFC101, CAR 101, CAR 103, CAR 105) Introduces finish floor coverings for residential construction projects. Emphasis will be placed on identification, estimation and installation of various types of hard and soft floor coverings. This course introduces design, construction and installation of fireplace trim. The course also introduces locating and installing cabinets and millwork. Topics include: identification of flooring materials, flooring estimation procedures, flooring installation procedures, fireplace trim, cabinets and millwork.

**CAR 121 Cornice and Soffit 1/2/1**

(Prerequisite: CAR 101, CAR 103, CAR 105, and program admission) Provides instruction in the production and installation of various types and styles of cornice and soffit work used in residential carpentry. Topics include: identification of types and styles, vent systems, materials estimation, installation procedures, and ladder and scaffolding safety.

**CAR 126 Stairs 2/3/3**

(Prerequisite: CAR 101, CAR 103, CAR 105, and program admission) Provides fundamental instruction in the layout, construction, and installation of various stair types. Topics include: identification of stair types, identification of stair components, riser and tread calculation, stringer layout, and fabrication and installation procedures.

**CAR 127 Residential Carpentry Internship 0/12/4**

(Prerequisite: All non-elective courses required for completion of Residential Carpentry Specialization) Provides students with occupation based instruction that applies learned skills to actual work experience. Emphasizes students opportunities to practice finish work as learned in class and lab as part of the residential carpentry specialization courses. Topics include: application of residential carpentry skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

**CAR 130 Doors and Door Hardware 1/4/2**

(Prerequisite: CAR 101, CAR 103, CAR 105, and program

admission) Provides instruction in the identification and installation of variety of doors, frames, and door hardware for commercial construction applications. Topics include: door types, door hardware, thresholds, weatherstripping, and overhead doors.

**CAR 131 Concrete Forming 1/6/3**

(Prerequisite: Construction Core, Provisional admission) Introduces materials and processes involved in construction practices using formed concrete. Topics include: wall forms, on-grade curb forms, vertical pier and column forms, horizontal beam forms, above-grade slab system, and stair forms.

**CAR 132 Site Development 1/1/1**

(Prerequisite: MAT 101, CAR 107) Introduces the principles and practices of land surveying and the use of more complex instruments. Emphasizes areas of transit use, use of electronic measuring devices, and the computation of bearings and angles. Topics include: area calculation, EDM equipment utilization, and differential leveling.

**CAR 134 Commercial Carpentry Internship 0/12/4**

(Prerequisite: All non-elective courses required for completion of Commercial Carpentry Specialization) Provides students with occupation-based instruction that applies learned skills to actual work experience. Emphasizes students opportunities to practice finish work as learned in class and lab as part of the commercial carpentry specialization courses. Topics include: application of commercial carpentry skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

**CAR 135 Steel Rigging and Reinforcing 1/0/1**

(Prerequisite: Program admission) Introduces various methods, materials, and equipment used in the handling and rigging of steel components in a construction project. Emphasis is placed on use of proper safety techniques. Topics include: calculation of rope strengths, knots, and standard hand signals.

**CET 130 Civil Computer Aided Drafting (CAD) 8/0/4**

(Prerequisites: SCT 100) Introduces PC based computer aided drafting. Subject matter includes use of a personal computer and commercial CAD software as they apply to civil drafting. Lab exercises will focus on structural detailing. Topics include: computer hardware, operating systems, graphical user interfaces, CAD systems, drawing with CAD, and printing and plotting.

**CET 190 Construction Materials 7/0/5**

(Prerequisites: MAT 103) Presents the fundamental construction materials and their engineering properties. Covers such material properties as aggregates, asphalt, Portland cement concrete, steel, and masonry. Topics include: material properties, introduction to materials testing, and materials selection and use.

**CFC 100 Safety 2/0/2**

(Prerequisite: Provisional admission) Provides a review of general safety rules and practices and provides students with information about state and federal regulations including OSHA Hazard Communication Standard and Material Safety Data Sheets (MSDS). Emphasis is placed on electrical, fire, lifting, and ladder and scaffolding hazards. Topics include: overview of safety rules and regulations, protective equipment, barriers and barricades, flammable materials, electrical hazards, ladders and scaffolding, safety in trenches and excavations, and introduction to rigging.

**CFC 101 Introduction to Construction 2/0/2**

(Prerequisite: Provisional admission) This course covers introduction to the different crafts in the building trades. The student is also introduced to the attitudes and life skills required to succeed in the construction industry. Topics include: introduction to the construction trades; workplace expectations, quality of work, professional ethical standards, proper communication practices, working in teams, learning for success and life skills. Provides an overview of the history of the plumbing and pipefitting trades.

**CHM 1111 Chemistry I 4/3/5**

(Prerequisite: MAT 1111) Provides an introduction to basic chemical principles and concepts which explain the behavior of matter. Topics include: measurement, atomic structure, chemical bonding, physical states of matter, nomenclature, and stoichiometry.

**CIS 103 Operating Systems Concepts 4/4/6**

(Pre/Corequisite: SCT 100) Provides an overview of operating systems functions and commands that are necessary in a computer working environment. Topics include: multi-programming, multi-user systems, resource management, task command/control languages, and operating system utilization, file system utilization, and multiple operating systems.

**CIS 105 Program Design and Development 5/0/5**

(Prerequisite: CIS106) Provides an emphasis on business problem identification and solution through systems of computer programs using such tools as structure charts, flowcharts, and pseudocode. Topics include: problem solving process, fundamentals of structured programming, program development building blocks, fundamentals of file and report structure, and business application structure.

**CIS 106 Computer Concepts 5/0/5**

(Pre/Corequisite: Provisional admission) Provides an overview of computers and information technology. Topics include: computer history and terminology, data representation, data storage concepts, fundamentals of information processing, fundamentals of hardware operation, fundamentals of communications and networking, structured programming concepts, program development methodology, system development methodology, and computer number systems.

**CIS 112 Systems Analysis and Design 4/4/6**

(Prerequisites: SCT 100, CIS 105, programming language preferred) Provides a review of and an application of systems life cycle development methodologies implemented by project teams. Topics include: role of systems analysis and design, preliminary investigation, systems analysis phase, systems design phase, systems development phase, implementation and evaluation, and post-implementation systems operation.

**CIS 122 Microcomputer Installation and Maintenance 4/6/7**

(Prerequisites: SCT100 Corequisite: CIS xxx, an operating system course) Provides an introduction to the fundamentals of installing and maintaining microcomputers. Topics include: identifying components and their functions; safety; installation procedures; troubleshooting techniques; and preventive maintenance.

**CIS 149 Advanced C++ Programming 4/6/7**

(Prerequisite: CIS 256) Introduces object oriented programming. Common elements of Windows applications will be discussed and created using a C++ integrated development environment. Topics include: object oriented programming, Windows applications, user interface design, capturing and validating input, event-driven programming design, conditional processing, and incorporating graphics.

**CIS 155 Working with Microsoft Windows Software 1/4/3**

Provides students with the interface concepts of Microsoft Windows software and the opportunity to develop software application skill in a wide range of business situations. Topics include: getting started with Microsoft Windows; managing programs and files; using write and paintbrush features; data transfer; printing; and customizing with Microsoft Windows.

**CIS 214 Database Management 4/4/6**

(Prerequisite: Advanced language with random file access) Provides an overview of the skills and knowledge of database application systems which are used in business, government, and industry. Topics include: history, database terminology and concepts, database system logical organization, data manipulation, database design concepts, models, normalization, Entity Relationship diagramming, physical database, networking and databases, and database security.

**CIS 252 Introduction to JAVA Programming 4/6/7**

(Prerequisite: CIS 105) Course designed to teach the basic concepts and methods of object-oriented design and Java programming. Use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK and Notepad as an editor. Continue to develop student's programming logic skills. Topics include: understand object oriented design terminology and impact on JAVA development, creation of simple JAVA programs using JDK and Notepad, ability to use JAVA data types, define JAVA variables, ability to develop programs using control structures, ability to create output for JAVA programs, ability to create new JAVA classes, ability to import JAVA classes, ability to debug basic JAVA programs, and ability to use the JAVA AWT toolkit

**CIS 255 Introduction to "C" Programming 4/6/7**

(Prerequisite: CIS105) Provides opportunity to gain a working knowledge of "C" programming. Includes creating, editing, executing, and debugging "C" programs of moderate difficulty. Topics include: basic "C" concepts, simple I/O and expressions, I/O and control statements, and managing data and developing programs.

**CIS 256 Advanced "C" Programming 4/6/7 Not on web site**

(Prerequisite: CIS 255) Covers theory and practice in developing advanced skills in "C" programming. Topics include: pointers; function, arrays, file input/output, BIOS and system service level operations, and program design and development.

**CIS 276 Advanced Routers and Switches 4/4/6**

(Prerequisite: CIS 2322) Introduces LAN design, LAN switching and switch segmentation, advanced routing, and multiple protocols. Topics include: a review of semesters I and II, local area network and (LAN) switching, virtual local area networks (VLANs), local area network (LAN) design, interior gateway routing protocols (IGRP), access control lists, and Novell IPX.

**CIS 277 WAN Design 4/4/6**

(Prerequisite: CIS 276) Emphasizes WAN design utilizing point-to-point protocol (PPP), integrated services digital network (ISDN), and frame relay. Topics include: a review of semesters I, II, and III, wide area network, wide area network design, point-to-point protocol, integrated services digital network (ISDN), and frame relay.

**CIS 282 Introduction to C++ Programming 4/6/7**

(Prerequisite: CIS105) Develops skills for the programmer to write programs using the language of C++. Emphasis is placed on utilizing the added features of C++ which will be added to the skills mastered in Programming with C. Topics include: functions, objects, classes, inheritance, overloading, polymorphism, streams, and containers.

**CIS 286 A+ Certification 4/6/7**

(Prerequisite: CIS 122) Provides the student with the fundamentals of configuring, installing, diagnosing, repairing, upgrading, and maintaining computers and their peripherals to fundamentally prepare the student for the A+ Certification examination. Topics include: A+ core module, A+ Windows operating systems, PC hardware and configuration, peripherals, preventive maintenance, customer interaction, virus protection, safety and electrostatic discharge, and networks.

**CIS 1104 Web Graphics using Adobe Photoshop 3/2/4**

(Prerequisite: CIS 2202 or advisor approval) This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include understanding file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codes, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects.

**CIS 1106 Introduction to Web Programming using C#.NET 3/2/4**  
(Prerequisite: CIS 105) This course provides an introduction to Web Programming using Microsoft C#. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

**CIS 1107 Introduction to Web Programming using Perl 3/2/4**  
(Prerequisite: CIS105) This course provides an introduction to Web Programming using Perl. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

**CIS 1108 Web Graphics using JASC Paint Shop 3/2/4**  
(Prerequisite: CIS 2202 or advisor approval) This course covers the creation and editing of digital photographs and images using JASC Paint Shop. Topics covered include understanding file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codes, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects.

**CIS 1109 Introduction to Web Programming using VB .NET 3/2/4**  
(Prerequisite: CIS 105 or program admission) This course provides an introduction to Web Programming using Microsoft Visual Basic .NET. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

**CIS 1110 Introduction to Web Programming using PHP 3/2/4**  
(Prerequisite: CIS 105) This course provides an introduction to Web Programming using PHP. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

**CIS 1111 Introduction to Web Programming using Python 3/2/4**  
(Prerequisite: CIS 105) This course provides an introduction to Web Programming using Python. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

**CIS 1114 Fundamentals of Wireless LAN's 4/4/6**  
(Prerequisite: CIS 2321, CIS 2322 with a grade of C or better) This introductory course to Wireless LAN's focuses on the design, planning, implementation, operation and troubleshooting of Wireless LAN's. It covers a comprehensive overview of technologies, security, and design best practices with particular emphasis on hands on skills in the following areas: Wireless LAN setup and troubleshooting; 802.11a and 802.11b technologies, products and solutions; site surveys; resilient WLAN design, installation and configuration; WLAN security 802.1x, EAP, LEAP, WEP, SSID; and vendor interoperability strategies.

**CIS 1121 Visual Basic.NET I 4/6/7**  
(Prerequisite: CIS 105) Introduces Microsoft Windows event-driven programming. Common elements of Windows applications will be discussed, created, and manipulated using Microsoft's Visual Studio development environment. Topics include numeric data types and variables, decision making structures, validating input with strings and functions, repetition and multiple forms, test files, arrays, lists and common dialog controls.

**CIS 1122 Visual Basic.NET II 4/6/7**  
(Prerequisite: CIS 1121) Advanced Visual Basic.NET teaches client-

server systems, n-tier development environments, relational databases, use of SQL to access data, the use of ADO.NET objects, methods and properties to access and update relational and XML databases. Advanced features of Visual Basic are explored.

**CIS 1123 Web Graphics & Animation using Adobe Flash 4/4/6**  
This course covers the creation and manipulation of images and animation using Adobe Flash and 3D creation software. Topics covered include 3D Digital Image tools, file types, download and image plug-in requirements, a systematic approach to creating images, creating 3D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2D and 3D animations.

**CIS 1124 Web Graphics & Animation using Adobe Illustrator and Adobe LiveMotion 4/4/6**

This course covers the creation and manipulation of images and animation using Adobe Illustrator and Adobe LiveMotion. Topics covered include 3D Digital image tools, file types, download and 3D image plug-in requirements, a systematic approach to creating images, creating 3D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2D and 3D animations.

**CIS 1140 Networking Fundamentals 4/4/6**  
(Prerequisite: SCT 100, CIS 106) Introduces networking technologies and prepares students to pass CompTIA's broad-based, vendor independent networking certification exam, Network +. Covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of both the LAN and WAN technologies, TCP-IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting.

**CIS 2005 Advanced Web Graphics using Adobe Photoshop 4/4/6**  
(Prerequisite: CIS 1104 or CIS 1123) This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include curves and adjustment layers, retouching techniques, color correction, color balancing, element replacement and restoration, typography and interpolation, and advanced techniques and special effects.

**CIS 2102 Advanced Web Graphics and Multimedia Using Adobe Premiere 4/4/6**

(Prerequisite: CIS 1123 or CIS 1104) This course covers advanced web graphics techniques, and multimedia for the web including sound, music, and digital video using Adobe Premiere. Topics covered include digital video editing, basic editing, adding audio, applying video and audio effects, morphing tools, and advanced topics.

**CIS 2104 Advanced Web Graphics and Multimedia using Adobe Director 4/4/6**

(Prerequisite: CIS 1123 or CIS 1104) This course covers advanced web graphics techniques, and multimedia for the web including sound, music, and digital video using Adobe Director. Topics include digital video editing; basic editing; adding audio; applying video; and audio effects; morphing tools; and advanced topics.

**CIS 2105 Advanced Web Graphics using Adobe Flash 4/4/6**  
(Prerequisite: CIS 1123 or CIS 1104) This course covers additional techniques used in the creation and manipulation of vector images and animation using Adobe Flash. Topics covered include (but not limited to) Advanced Animation Techniques, ActionScript Fundamentals, Advanced ActionScript Techniques, Third Party Languages, Optimizing and Publishing Flash movies.

**CIS 2106 Advanced Web Programming using C# .NET 4/4/6**

(Prerequisite: CIS 1106) This course provides a look at advanced Web Programming techniques using Microsoft C# .NET. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIS 2107 Advanced Web Programming using PERL 4/4/6**

(Prerequisite: CIS 1107) This course provides a look at advanced Web Programming techniques using PERL. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIS 2108 Web Server Administration 4/4/6**

(Prerequisite: CIS 2153 or CIS 2556) This course covers Web Server Administration techniques. Topics include web server installation, web server configuration, web server access control, web server database management, web server security, and related topics. Tools used include Microsoft IIS Server, Microsoft SQL Server, and/or Apache Server.

**CIS 2109 Advanced Web Programming using VB .NET 4/4/6**

(Prerequisite: CIS 1109) This course provides a look at advanced Web Programming techniques using Microsoft Visual Basic .NET. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIS 2110 Advanced Web Programming using PHP 4/4/6**

(Prerequisite: CIS 1110) This course provides a look at advanced Web Programming techniques using PHP. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIS 2111 Advanced Web Programming using Python 4/4/6**

(Prerequisite: CIS 1111) This course provides a look at advanced Web Programming techniques using Python. Topics include class and object creation, advanced data access, communicating with server side programs, security, and advanced topics.

**CIS 2149 Implementing Microsoft Windows Professional 4/4/6**

(Prerequisite: CIS XXXX, an operating system course and CIS 1140 or advisor approval) Provides the ability to implement, administer, and troubleshoot Windows Vista as a desktop operating system in any network environment. Topics include: installing Windows Professional; implementing, managing, and troubleshooting hardware devices and drivers; implementing, managing, and troubleshooting network protocols and services; implementing, managing, and troubleshooting security; configuring and troubleshooting the desktop environment; and monitoring and optimizing system performance and reliability.

**CIS 2150 Implementing Microsoft Windows Server 4/4/6**

(Prerequisite: CIS 2149) Provides students with knowledge and skills necessary for new-to-product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows server family of products. Topics include: installing Windows 2008 Server; installing, configuring, and troubleshooting hardware devices and drivers; managing, monitoring, and optimizing system performance, reliability, and availability; configuring and troubleshooting Windows 2008 network connections; and implementing, managing, and troubleshooting security.

**CIS 2153 Implementing Microsoft Windows Networking Infrastructure 4/4/6**

(Prerequisite: CIS 2150) Provides students with knowledge and skills necessary for new-to product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows server family of products. Topics include: automating Internet Protocol (IP); address assignment using DHCP; implementing name resolution using DNS and WINS; configuring and supporting remote access to a network; configuring network security; integrating network services

of Windows; deploying Windows Professional; and using remote installation services.

**CIS 2154 Implementing Microsoft Windows Networking Directory Services 4/4/6**

(Prerequisite: CIS 2153) Provides students with knowledge and skills necessary to install, configure, and administer the Microsoft Active Directory service. The course also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Topics include: understanding the logical and physical structure of Active Directory; configuring the Domain Name System (DNS); server service to support Active Directory; creating and administering user accounts and group resources; implementing and using Group Policy; managing replication of Active Directory; and maintaining and restoring the database of Active Directory.

**CIS 2161 Structured Query Language (SQL) 4/6/7**

(Prerequisite: CIS 105, and an operating systems course) A course designed to allow the student to solve common database retrieval problems through the use of the SQL Language that supports common databases such as SQL/ Server, ORACLE, DB2, ACCESS and other database systems. Topics include: understanding database vocabulary, understanding object and relational database concepts, understanding and implementing SQL statements that retrieve, insert, update and delete data in a database, ability to implement aggregate and group SQL functions, create, edit and drop database tables, query data from multiple databases, design queries and sub queries, develop an understanding of union, and join operations, understand how to execute and implement database triggers.

**CIS 2162 Administering Microsoft® SQL Server 4/4/6**

(Prerequisite: CIS 2149 and CIS 2150) This course provides instruction on how to administer a Microsoft SQL Server. Topics include: Planning, Installation and Configuration, Configuring and Managing Security, Managing and Maintaining Data, Monitoring and Optimization, and Troubleshooting.

**CIS 2163 Designing and Implementing Databases with Microsoft® SQL Server™ 4/4/6**

(Prerequisite: CIS 2149 and CIS 2150) This course provides instruction on how to design and implement a database solution by using Microsoft SQL Server. Topics include: developing a logical data model, deriving the physical design, creating data services, creating a physical database, and maintaining a database.

**CIS 2191 Internet Business Fundamentals 3/2/4**

(Prerequisite: Program admission) Internet Business Fundamentals teaches students how to access the Internet and the World Wide Web using a Web browser as a general-purpose internet application. Students will learn to use the Internet for e-mail, the World Wide Web, news-groups, Gopher, Veronica, File Transfer Protocol (FTP) and Telnet. Students will gain experience using and configuring both Netscape Navigator and Microsoft Internet Explorer to access rich multimedia data and objects as well as Java, Shockwave, and Active X content. A variety of Web-based search engines will be used to conduct advanced searches and learn the basics of project leadership, security, and e-business solutions. Students will also learn about business on the Internet, and how business research can help companies gain market intelligence. Topics include overview of the Internet, browsing the World Wide Web, electronic mail (E-Mail), using file transfer, TELNET, and Instant Messaging. search engines, searching to gain market intelligence, Internet technology, advanced Web concepts and browser customization, security and the Web, advanced search techniques, accessing business resources on the Internet, objects, plug-Ins, and viewers, and electronic commerce fundamentals.



**CIS 2202 XHTML Fundamentals 3/2/5**

(Prerequisite: SCT 100) XHTML Fundamentals is designed to teach basic through intermediate concepts in Hypertext Markup Language (HTML) authoring, including forms, complex table design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, in practical applications, a wide range of HTML tags and attributes. Students will learn how to use Cascading Style Sheets (CSS), XML, and XHTML. All HTML, CSS, XHTML, and XML development will follow the current standards set by the World Wide Web Consortium (W3C). Topics include introduction to HTML, CSS, XHTML, and XML, creating pages using HTML, CSS, XHTML, and XML, incorporating graphical elements, create hyperlinks, create HTML tables, create HTML forms, and image maps.

**CIS 2211 Web Site Design Tools 4/4/6**

(Prerequisite: SCT 100) Web Site Design Tools teaches an understanding of how to create and manage impressive sites using the sizable amounts of new technology available on the Web. Students will learn to create web sites using various web tools such as FrontPage, NetObjects Fusion, Dynamic HTML, and various multimedia and CSS standards. Topics include compare and contrast different web site design tools, design web pages using FrontPage, NetObjects, and Image Composer web site design tools, develop basic layout skills, create shared borders, tables, hyperlinks, and forms, utilize advanced image techniques, connect a web site to a database, publish and manage a web site

**CIS 2231 Design Methodology 4/4/6**

(Prerequisites: CIS 2202, CIS 2211, CIS 2261, CIS 1104, CIS 1123 and advisor approval) Design Methodology teaches students how to create and manage Web sites using FrontPage, NetObjects Fusion Dynamic HTML, and various multimedia and CSS standards. Students will also implement the latest strategies to develop third generation Web site, evaluation design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers. The course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, and scenario development and performance evaluations.

**CIS 2261 Java Script Fundamentals 3/2/4**

(Prerequisites: CIS 2202) JavaScript Fundamentals teaches developers how to use the features of the JavaScript language and the Netscape Navigator browser. Students learn how to write JavaScript programs that can be plugged into Web pages or customized, and examine advanced issues such as debugging techniques and JavaScript security.

**CIS 2271 Fundamentals of CGI Programming using PERL 3/2/4**

Fundamentals of CGI Programming using PERL and server-side Scripting teaches students how to use Common Gateway Interface (CGI) PERL programs and scripts on a Web server. Students will learn how to write print-to-screen scripts, customize Web page hit counters, create and use business forms that interface with text files, manipulate data in a database, work with a relations database via Open Database Connectivity (ODBC), and explore Web server security issues related to CGI. A survey of other products such as Microsoft Active Server Pages, Netscape LiveWire, and Cold Fusion by Allaire will be discussed. Security issues using server-side scripting will also be studied, and students will learn how to add security elements to their scripts.

**CIS 2281 Database Connectivity 4/4/6**

(Prerequisites: CIS 2202, CIS 1110) Database Connectivity teaches students how to manipulate data in a database using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database information with a web application. Database access may be accomplished using a web programming language (such as ColdFusion, PHP, Microsoft VB,

Microsoft C#, or Sun Java). Topics include manipulate data in a database, work with a relational database via Open Database Connectivity (ODBC), working with different database systems, develop forms and applications to interact with a database server(s), modifying data in a database, and controls and validation.

**CIS 2291 – Network Security 4/4/6**

(Prerequisite: CIS 1140 or CIS 2321) Network Security introduces students to network security, firewalls, Microsoft Windows network security, UNIX and TCP/IP network security, security auditing, attacks, and threat analysis. Topics include: elements of security, TCP/IP, operating system security, router security, firewalls, security basics, user and group security, file system security, securing the registry, account security, security auditing fundamentals, and additional security measures.

**CIS 2321 Introduction to LAN and WAN 4/4/6**

(Prerequisite: SCT 100) Provides students with classroom and laboratory experience in current and emerging network technology. Topics include safety, networking, network terminology and protocols, network standards, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building and environmental codes and regulations. Topics include computer basics, OSI model, Local Area Networks (LANs), Layer 1 - electronics and signals; media, connections, and collisions, Layer 2 - concepts and technologies, basic network design and documentation, structured cabling, Layer 3 - routing and addressing; Protocols, Layer 4 - the transport layer, Layer 5 - the session layer, Layer 6 - the presentation layer, and Layer 7 - the application layer.

**CIS 2322 Introduction to WANs and Routing 4/4/6**

(Prerequisite: CIS 2321) This course provides instruction on performing basic router configuration and troubleshooting.

**CIS 2421 Intermediate Java Programming 4/6/7**

(Prerequisite: CIS 252) Programmers familiar with object-oriented concepts will learn how to develop Java applications. This course is used to teach students the syntax of the Java programming language and object-oriented programming with the Java programming language. The course used the Java 2 Software Development Kit (SDK).

**CIS 2501 Building Scalable Cisco Networks 4/4/6**

(Prerequisite: CCNA certification or completion of Cisco CCNA Specialist) This course focuses on advanced routing and using Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at medium to large network sites. Upon completion of this training course, the student will be able to select and implement the appropriate Cisco IOS services required to build a scalable routed network. This curriculum prepares the student for the BSCN exam one of four for the CCNP Certification.

**CIS 2502 Building Cisco Remote Access Networks 4/4/6**

(Prerequisite: CIS 2501) The focus of this course is on how to use one or more of the available WAN permanent or dialup technologies to connect company sites. Students will be able to connect, configure, and troubleshoot the various elements of a remote network in a WAN environment. This course prepares students for the BCRAN exam one of four for the CCNP Certification.

**CIS 2503 Building Cisco Multilayer Switched Networks 4/4/6**

(Prerequisite: CIS 2502) The focus of this course is on how to build and manage high-speed Ethernet networks. This course also introduces the emerging Multilayer Switching technology and describes how it enhances performance and scalability in campus networks. Finally, the course explores how to manage traffic traversing the network. The student will be able to connect, configure, and troubleshoot the various elements of a campus network in an Ethernet environment. This curriculum prepares the student for the BCMSN exam one of four for the CCNP Certification.

**CIS 2504 Cisco Internetworking Troubleshooting 4/4/6**

(Prerequisite: CIS 2503) The focus of Cisco Internetworking Troubleshooting is on troubleshooting network problems. Upon completion of this training course, the students should be better able to analyze and resolve problems. This curriculum prepares the student for the CIT exam one of four for the CCNP Certification.

**CIS 2511 Beginning Python Programming 4/6/7**

(Prerequisite: CIS 105) Provides a study of the Python programming language to solve applications. Topics include: Computing with Numbers, Computing with Strings, Objects and Graphics, Defining Functions, Decision Functions, Loop Structures and Booleans, Game Simulation and Design, Defining Classes, Data Collection, Object-Oriented Design, and Recursion.

**CIS 2801 Interactive Video Productions I 3/6/6**

This course will be the first of three courses designed to train individuals in the skills needed to package information content ready for an interactive video delivery system. The course will cover terminology and techniques for video, audio, web page creation, menu creation, slide show creation, video synchronization, assessments, animations and image editing.

**CIS 2802 Interactive Video Productions II 3/6/6**

(Pre/Corequisite: CIS 2801) This course will be the second of three courses designed to train individuals in the skills needed to package information content ready for an interactive video delivery system. The course will cover such topics as recording video, recording audio, creating a web page, creating a menu, creating a slide show, synchronizing video, creating an assessment, creating an animation, and editing an image.

**CIS 2803 Interactive Video Productions III 0/10/5**

(Pre/Corequisite: CIS 2802) This course will be the third of three courses designed to train individuals in the skills needed to package information content ready for an interactive video delivery system. The main focus of the course will be to complete an interactive video project, consisting of video, audio, navigation, and assessment.

**CMT 204 Construction Scheduling 2/0/2 Not on site**

A study of scheduling techniques available to builders to plan, organize, and monitor the construction process. Topics include: bar charts, arrow diagrams, precedence networks, and CPM.

**CMT 205 Inspection Practices 3/2/4**

Prerequisite: Completion of the Carpentry program or successful completion of advanced placement procedures. Covers building codes as they apply to typical residential applications. Topics include: standard building code, CAB code, working with building inspectors, permits and inspections, and site visits.

**CMT 211 Computerized Construction Estimating 2/3/3**

(Pre/Corequisite: SCT 100) Provides a study of the use of spreadsheet and database software as applied to construction estimating. Topics include: producing an estimate using both item and work package take-off methods, copying or modifying an existing estimate, repricing an estimate, and printing reports. Use of up-to-date construction estimation software is emphasized in this course.

**CMT 217 Construction Contracting 5/0/5**

An in-depth study of the contractual relationship between the parties involved in building construction contracting. Topics include: bonds, insurance, bidding, awarding, and subcontracting types and conditions.

**CNA 100 Patient Care Fundamentals 5/6/8**

(Prerequisite: Program admission) Introduces student to the occupation of Certified Nurse Assistant. Emphasis is placed on human anatomy and physiology, cardiac pulmonary resuscitation, and nutrition and diet therapy. Topics include: role and responsibilities of the Certified Nurse Assistant; topography, structure, and function of body systems; legal and safety requirements in the patient care field; equipment use and care; and performance skills standards and procedures.

**COS 100 Introduction to Cosmetology Theory 5/0/5**

(Prerequisite: Program admission) Introduces the fundamental theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include: State and local laws, rules, and regulations; professional image; bacteriology; decontamination and infectious control; chemistry fundamentals; safety, Hazardous Duty Standards Act compliance; and anatomy and physiology and types of equipment.

**COS 101 Intro to Permanent Waving and Relaxing 3/2/4**

(Prerequisites: COS 100) Introduces the chemistry and chemical reactions of permanent wave solutions and relaxers. Topics include: permanent wave techniques, safety procedures, chemical relaxer techniques, and permanent wave and chemical relaxer application on mannequins.

**COS 103 Basic Creative Treatment of Hair, Scalp, and Skin 2/2/3**

(Prerequisites: COS 100) Introduces the theory, procedures, and products in the care and treatment of the skin, scalp, and hair. Topics include: treatment theory; basic corrective hair and scalp treatments; plain facial products and supplies; and diseases and disorders, and safety precautions.

**COS 105 Introduction To Shampooing and Styling 2/4/4**

(Prerequisite: COS 100) Introduces the fundamental theory and skills required to shampoo and create shapings, pincurls, fingerwaves, roller placement, and combouts. Topics include: braiding/intertwining hair, shampoo chemistry, shampoo procedures, styling principles, pincurls, roller placement, fingerwaves, combout techniques, skipwaves, ridgecurls, and safety precautions.

**COS 106 Introduction to Haircutting 2/2/3**

(Prerequisite: COS 100) Introduces the theory and skills necessary to apply haircutting techniques. Safe use of haircutting implements will be stressed. Topics include: haircutting terminology, safety and sanitation, cutting implements, and haircutting techniques.

**COS 107 Advanced Haircutting 0/5/2**

(Prerequisite: COS 106) Continues the theory and application of haircutting techniques. Topics include: client consultation, head, hair, and body analysis, style cutting, haircutting techniques, and client consultations/head/hair/body analysis.

**COS 108 Permanent Waving and Relaxing 2/2/3**

(Prerequisite: COS 101) Provides instruction in the application of permanent waves and relaxers. Precautions and special problems involved in applying permanent waves and relaxers will be emphasized. Application of perms and relaxers on live models is included. Topics include: timed permanent wave, timed relaxer application, safety precautions, and Hazardous Duty Standards Act compliance.

**COS 109 Hair Color 4/4/6**

(Prerequisite: COS 103, 105, 107, 108) Presents the application of temporary, semi permanent, deposit only, and permanent hair coloring and decolorization products. Topics include: basic color concepts, law of color, hair structure and color, classifications of color, safety precautions, skin and hair reactions, level of color, consultation, communication and record and release forms, product knowledge, formulations, chemistry, application procedures, lighteners, toners, special problems in hair color and corrective coloring, terminology review, and lash and brow tints.

**COS 110 Skin, Scalp, and Hair 2/2/3**

(Prerequisite: COS 103; Corequisites: COS 111, 109) Provides instruction on and application of techniques and theory in the treatment of the skin, scalp, and hair. Emphasis will be placed on work with live models. Topics include: implements, products and supplies, corrective hair and scalp treatments, facial procedures and manipulations, safety precautions and treatment theory: electricity and light therapy.

**COS 111 Styling 1/4/3**

(Prerequisite: COS 105, 110) Continues the theory and application of hairstyling and introduces thermal techniques. Topics include: blow dry styling, thermal curling, thermal pressing, thermal waving, advanced sets, safety precautions, and artificial hair and augmentation.

**COS 112 Manicuring and Pedicuring 2/2/3**

(Prerequisite: COS 100) Provides manicuring and pedicuring experience on live models. Topics include: implements, products and supplies, hand and foot anatomy, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions, and advanced nail techniques.

**COS 113 Practicum I 1/12/5**

(Prerequisites: COS 111, 112) Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair; haircutting and styling; dispensary; manicure/pedicure; receptionist; safety precautions, Hazardous Duty Standards Act compliance.

**COS 114 Practicum II 4/12/8**

(Prerequisite: COS 113) Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; Hazardous Duty Standards Act compliance; advanced styling and shaping; industry concepts; and surviving in the salon (transition from class to employment).

**COS 115 Practicum III 1/12/5**

(Prerequisites: COS 114) Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications for completion of state board service credit requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. Topics include: permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair; haircutting; styling; dispensary; manicure/pedicure; reception; safety precautions; and Hazardous Duty Standards Act compliance.

**COS 116 Practicum IV 1/12/5**

(Prerequisites: COS 115) Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting or in a combination of a lab setting and an approved internship facility. Topics include: the same as COS 115 along with preparation for state licensure.

**COS 117 Salon Management 3/2/4**

(Prerequisite: COS 112) Emphasizes the steps involved in opening and operating a privately owned cosmetology salon or barber styling shop. Topics include: planning a salon, business management, retailing, public relations, client retention, and sales skills.

**COS 118 Nail Care I 0/21/7**

(Prerequisite: COS 100, COS 112, 117) Provides additional experience in manicuring and Pedicuring techniques required of applicants for state licensure. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, nail repair, artificial nails, pedicure, and advanced and new techniques.

**COS 119 Nail Care II 4/15/9**

(Prerequisites: COS 118) Provides nail care experience on live models. Emphasis will be placed on the display of professional conduct and positive attitudes. The appropriate number of applications required by the State Board of Cosmetology in theory and service credit requirements for this course. Topics include advanced and new techniques along with HIV and OSILA updates.

**CPH 101 Photographic Theory Fundamentals 3/0/3**

(Prerequisite: Program admission) Introduces the fundamental theory, function, and application of the camera and camera lens. Also presents the basic principles of light and optics and exposure controls. Topics include: camera fundamentals, lens fundamentals, light, and metering introduction.

**CPH 106 Portraiture 2/4/4**

Introduces techniques of lighting and posing as applied to professional portraiture. Emphasizes the photographer/subject relationship and the use of controlled studio lighting and available light portraits. Topics include: available light, studio lighting, posing techniques, and camera operations.

**CPH 111 Commercial Photography 2/6/4**

Introduces the concepts and techniques applied in commercial and advertising photography. Emphasizes skill development through laboratory activities. Topics include: commercial lighting, large format camera techniques, exposure and metering, safety techniques, and advertising principles.

**CPH 117 Photographic History 1/0/1**

(Prerequisite: CPH 101) Provides instruction on the history and development of photography. Topics include: photography, past and present and introduction to art history.

**CPH 141 Photo Imaging I 1/4/3**

Introduces the photographic processes which use digital technology. Topics include: photo digital technology history, digital processes in today's photography market, personal computer basics, introductory Photoshop software, and manipulation of digital photos into print formats.

**CRJ 101 Introduction to Criminal Justice 5/0/5**

(Prerequisite: Provisional admission) Examines the emergence, progress, and problems of the criminal justice system in the United States. Topics include: The American criminal justice system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements.

**CRJ 103 Corrections 5/0/5**

(Prerequisite: Provisional admission) Provides an overview of all phases of the American correctional system and practices, including its history, procedures, and objectives. Topics include: history and evolution of correctional facilities; legal and administrative problems; institutional facilities and procedures; probation parole, and prerelease programs; alternative sentencing; rehabilitation; community involvement; and staffing.

**CRJ 104 Principles of Law Enforcement 5/0/5**

(Prerequisite: Provisional admission) Examines the principles of organization and administration and the duties of local and state law enforcement agencies with emphasis on police departments. Topics include: history and philosophy of law enforcement; evaluation of administrative practices; problems in American law enforcement agencies; emerging concepts; professionalism; and community crime prevention programs.

**CRJ 105 Intro to Criminal Procedure 4/2/5**

(Prerequisite: CRJ 101) Introduces the substantive law of major crimes against persons and property. Attention is given to observation of courtroom trials. Topics include: laws of arrest and search and seizure; procedures governing arrest, trial, and administration of criminal sanctions; rules of evidence; general court procedures; rights and duties of officers and citizens; and Supreme Court rulings that apply to law enforcement/overview of Constitutional Law.

**CRJ 121 Introduction to Private Security 5/0/5**

(Prerequisite: Program admission) Provides an orientation to the development, philosophy, responsibility, and function of the Private Security Industry. A historical and philosophical perspective of a private security will help students better understand the present stage of private security, its principles, its legal authority and its effect on society in general. Topics include: Private Security: An Overview; Basic Security Goals and Responsibilities; When Prevention Fails; Security Systems at Work; Putting It All Together, and Challenges Facing the Security Profession.

**CRJ 122 Retail Security and Storage Protection 5/0/5**

(Prerequisite: CRJ 121) Provides an orientation that focuses on security and shortage protection for small retail businesses with an emphasis placed on vulnerabilities, losses and practical retail business measures. Topics include: retailing and security, legal aspects of retail security, protection at the point of sale, internal losses and countermeasures, shoplifting and countermeasures, investigation of internal losses shoplifting, store design and physical security, and risk management.

**CRJ 140 Cultural Perspectives for Law Enforcement Officers 5/0/5**

Designed to aid law enforcement officers to better understand and communicate with members of other cultures with whom they come in contact in the line of duty. Topics include: defining and applying terms related to intercultural attitudes, role-play activities related to intercultural understanding, developing interpersonal/ intercultural communication competence, and development of personal intercultural growth plan.

**CRJ 141 Workplace Spanish 3/0/3**

(Prerequisite: Program admission) Introduces the vocabulary, sentence structure and conversational skills needed to communicate in Spanish with co-workers and inmates in a correction facility. Topics include the following: parts of speech, vocabulary, sentence structure, and common phrases in the workplace and prison system.

**CRJ 143 Probation and Parole 5/0/5**

This course will cover the history of both juvenile and adult probation and the history of parole. The probation and parole systems will be covered in general with a special emphasis on the Georgia systems and related laws. Rehabilitation theory and indeterminate punishments will be covered as well as the duties and tasks of probation and parole officers.

**CRJ 150 Police Patrol Operations 5/0/5**

(Prerequisite: Program admission) This course presents the knowledge and skills associated with police patrol operations. Emphasis is placed on patrol techniques, crimes in progress, crisis intervention, domestic disputes, disturbance calls, Georgia Crime Information Center procedures, electronics communications, and police reports. Topics include: foundations, policing skills, and communication skills.

**CRJ 152 Police Administration 5/0/5**

(Prerequisite/Corequisite: Program admission) This course explores the managerial aspects of effective and efficient police administration. Emphasis is directed towards increasing organizational skills and overcoming interdepartmental and inter-agency non-communication. Topics include: environmental management, human resources, and organizational concerns.

**CRJ 154 Police Officer Survival 5/0/5**

(Prerequisite: Program admission) This course examines the critical issues involved in the survival of a police officer. Emphasis is placed on conducting enforcement raids, managing hostage situations, controlling hazardous materials spills, search techniques, mechanics of arrest, and levels of force. Topics include: hazardous duty, public safety, and self-protection.

**CRJ 156 Police Traffic Control and Accident Investigation 5/0/5**

(Pre/Corequisite: Program Admission) Examines enforcement of traffic laws and procedures for traffic accident investigation. Emphasis is placed on Georgia traffic laws, traffic law enforcement, recognition of impaired driving, and traffic accident investigation. Topics include: regulations, impaired driving, and traffic accident report.

**CRJ 158 Fundamental Issues in Policing 5/0/5**

(Prerequisite/Corequisite: Program admission) This course examines the fundamental issues within the occupation of policing. Emphasis is placed on ethics and professionalism, civil liability, interpersonal communications, mental health, substance abuse, health and wellness, equipment preparation, vehicle pullovers, and emergency vehicle operations. Topics include: occupational standards, health related hazards, and daily preparedness.

**CRJ 162 Methods of Criminal Investigation 5/0/5**

(Prerequisite/Corequisite: Program admission) Presents the fundamental principles of criminal investigation. Emphasis is placed on legal requirements stated in Georgia Criminal Law, definition of felony crimes stated in the Georgia Code and fundamentals of: investigative procedures, crime scene searches, identification and collection of evidence, note-taking and report writing, surveillance, identification of witnesses and suspects, interviews and interrogation, and preparation and presentation of evidence in court. Topics include: Georgia Criminal Law, common investigative techniques, and procedures used for investigating various crimes.

**CRJ 163 Investigation and Presentation of Evidence 1/4/3**

(Prerequisite: CRJ 162) This course presents students with practical exercises dealing with investigations and gathering of evidence. Emphasis is placed on crime scene search, fingerprinting, cast molding, and practical exercises. Topics include: crime scene management, specialized investigation techniques, and homicide and suicide investigation.

**CRJ 165 Community-Oriented Policing 5/0/5**

(Prerequisite: CRJ 104) Presents the fundamentals for the community-oriented policing philosophy. Topics include: comparison of traditional and community policing philosophies; law enforcement and community relationships; importance of political and public support and involvement; attitudinal changes involving the roles of police management, supervisors and line personnel; organizational mental and physical restructuring; creation of partnerships with community organizations, businesses, private security, other governmental agencies, and special interest groups; and police problem-solving methodologies.

**CRJ 168 Criminal Law 5/0/5**

(Prerequisite: Program admission) This course emphasizes the historical development of criminal law in the United States and the current status of Georgia criminal law. The main focus of the course will be the statutory contents of the Official Code of Georgia Annotated (O.C.G.A.), with primary emphasis on the criminal and traffic codes.

**CRJ 175 Report Writing in Criminal Justice 5/0/5**

Explains and demonstrates the effectiveness of the entire criminal investigation process by the quality of notes reports, and accurate documentation. An examination of what goes into the preparation, content, elements, mechanics, and format of documenting the criminal investigation process. Topics include: field notes, initial information, observations, evidence, victims, witnesses, property, neighborhood canvass, crime scene, laboratory analysis and results, investigative follow-up, suspect statements, and the characteristics essential to quality report writing.

**CRJ 202 Constitutional Law 5/0/5**

(Prerequisite: CRJ 101) Emphasizes those provisions of the Bill of Rights which pertain to criminal justice. Topics include: characteristics and powers of the three (3) branches of government, principles governing the operation of the Constitution, the Bill of Rights, and the Constitutional Amendments.

**CRJ 206 Criminology 5/0/5**

(Prerequisite: CRJ 104) Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. Topics include: scope and varieties of crime; sociological, psychological, and biological causes of crime; criminal subculture and society's reaction; prevention of criminal behavior; behavior of criminals in penal and correctional institutions; and problems of rehabilitating the convicted criminal.

**CRJ 207 Juvenile Justice 5/0/5**

(Prerequisite: CRJ 101) Analyzes the nature, extent, and causes of juvenile delinquency, and examines processes in the field of juvenile justice. Topics include: survey of juvenile law, comparative analysis of adult and juvenile justice systems, and prevention and treatment of juvenile delinquency.

**CRJ 209 Criminal Justice Technology Practicum/ Internship 0/15/5**

(Prerequisite: Completion of all required courses) Provides experiences necessary for further professional development and exposure to related agencies in the Criminal Justice Technology field. The student will either pursue a study project directed by the instructor within the institution, or an internship in a related agency supervised by the instructor. Placement is subject to the availability of an approved site. Topics include: observation and/or participation in Criminal Justice Technology activities, interpersonal skills development, community oriented policing, cultural diversity, critical thinking/problem solving, and an independent study project.

**CRJ 211 Homeland Security 5/0/5**

(Prerequisite: Program admission) This course examines the critical issues involved in information management concepts related to the six critical homeland security mission areas. Students will analyze threat and vulnerability information, risk assessment, and crisis management and will discuss functions, responsibilities and policy

related to information systems and the importance of integration of these systems and sharing of information.

**CRJ 212 Ethics in Criminal Justice 5/0/5**

(Prerequisite: Program admission) This course provides an exploration of the field of criminal justice ethics, which broadly encompasses the history of justice and theories of morality and ethics. It includes the study of ethics from both the individual perspective and the organizational standpoint. Special attention will be given to concrete ethical issues and dilemmas which are encountered regularly by participants in the major components of the criminal justice system. Four areas of ethical decision making opportunities are therefore studied in this course including: law enforcement ethics, correctional ethics, legal profession ethics, and policymaking ethics.

**CSS 100 Central Sterile Supply Technician 3/6/6**

Objectives are to provide students with in-depth knowledge of principles, practices, standards and techniques to clean, decontaminate, assemble, sterilize and distribute instruments and supplies used in the surgery and other areas in the hospital. Students will be trained in inventory & patient care equipment management concepts in accordance with policies and procedures, laws, regulations that govern Central Sterile departments on a national level. Emphasis are placed on quality assurance, work ethics and communication/human relations skills for the central sterile profession.

**CTD 101 Fundamentals of Commercial Truck Driving 5/0/5**

Introduces students to the trucking industry, federal and state regulations, records and forms, industrial relations, and other non-driving activities. This course provides an emphasis on safety that will continue throughout the program. Students must complete the AP written exam by the end of the second week of class. On completion of CTD 101, students can take the CDL exam.

**CTD 102 Basic Operations 3/5/5**

(Prerequisite: CTD 101) This course focuses on familiarizing students with truck instruments and controls and on performing basic maneuvers required to drive safely in a controlled environment. In addition, students acquire basic coupling and uncoupling skills.

**CTD 103 Advanced Operations 1/13/5**

(Corequisite: CTD 102) Advanced Operations focuses on developing driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. On the road, safe operating practices are integrated into the development of driving skills. Students must complete 44 hours on the road and backing to complete the program. Each student must receive at least twelve (12) hours behind the wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of forty-four (44) hours BTW instructional time in any combination (with CTD 102) of range and street/road driving. Note: State law requires that, whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving.

**CTD 104 Internship 0/15/5**

(Corequisite: CTD 102) The Internship provides the opportunity for an individual to complete his or her training with a company. The internship takes the place of CTD 103 Advanced Operations. Working closely with the school, a company provides the advanced training which focuses on developing driving skills. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of 44 (fourty four) hours BTW instructional time in any combination (with CTD 102) or range and street/road driving. Note: State law requires that whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving

**CTD 105 Basic Operation of Commercial Straight Truck and Passenger Driving 4/6/5**

(Prerequisite: CTD 101) This course focuses on familiarizing students with truck instruments and controls and on performing basic maneuvers required to drive safely in a controlled environment. In addition, students acquire basic coupling and uncoupling skills.

**CTD 106 Advanced Operations of Commercial Straight Truck and Passenger Driving 2/15/5**

(Corequisite: CTD 105) Focuses on developing driving skills under actual road conditions. Classroom time stresses following safe operating practices. On the road, safe operating practices are integrated into the development of driving skills. Students drive a total of 350 documented, over-the-road miles.

**CTD 107 Internship 0/16/5**

(Corequisite: CTD 105) The internship provides the opportunity for the student to complete their training with a company or their employer. Working closely with the school, their employer provides the advanced training which focuses on developing driving skills on the type of equipment they intend to drive. During the internship training the student will learn to use all the attachments on their vehicle, i.e.; winches, outriggers, mixers, and spreaders with a dump truck. Here they will obey all environmental laws, D.O.T. and O.S.H.A. rules and regulations.

**CUL 100 Professionalism in Culinary Arts 3/0/3**

(Prerequisite: Program admission) Provides an overview of the professionalism in culinary arts and culinary career opportunities. Chef history, pride, and esprit decorp are taught. Topics include: cuisine, food service organizations, career opportunities, food service styles, and basic culinary management techniques.

**CUL 110 Safety, Sanitation, and Equipment 2/4/3**

(Prerequisite: Provisional admission) Emphasizes fundamental kitchen and dining room safety, sanitation, maintenance, and operation procedures. Topics include: cleaning standards, O.S.H.A., M.S.D.S guidelines, sanitary procedures following SERV-SAFE guidelines, HACCAP, safety practices, basic kitchen first aid, operation of equipment, cleaning and maintenance of equipment, dishwashing, and pot and pan cleaning. Laboratory practice parallels class work.

**CUL 112 Principles of Cooking 2/11/6**

(Pre/Corequisite: CUL 100, CUL 110) Introduces fundamental food preparation terms, concepts, and methods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: weights and measures, conversions, basic cooking principles, methods of food preparation, and recipe utilization. Laboratory demonstrations and student experimentation parallel class work.

**CUL 114 American Regional Cuisine 2/8/5**

(Prerequisite: CUL 110) Emphasis on terms, concepts, and methods necessary to American Cuisine food preparation. Course content reflect American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: kitchen aromatics, regional cooking principles and history, methods of American regional food preparation.

**CUL 116 Food Service Purchasing and Control 2/2/3**

(Prerequisite: MAT 1012 or MAT 1111) Introduces principles and practices necessary to food, supply, and equipment selection, procurement, receiving, storage, and distribution. Topics include: quality factors, food tests, pricing procedures, cost determination and control, selection, procurement, receiving, storage, and distribution. Laboratory demonstration and student experimentation parallel class work.

**CUL 121 Baking Principles I 2/8/5**

(Prerequisite: CUL110, Corequisite: CUL112) Presents the fundamental terms, concepts, and methods involved in preparation of yeast and quick breads. Emphasis is placed on conformance of sanitation and hygienic work habits with health laws. Course content

reflects American Culinary Federation Educational Institute cook and pastry apprenticeship training objectives, along with Retail Bakery Association training program. Topics include: baking principles, baking ingredients, preparation of baked goods, baking sanitation and hygiene, and baking supplies and equipment.

**CUL 122 Baking Principles II 2/8/5**

(Prerequisite: CUL121) Presents the fundamental terms, concepts, and methods involved in preparation of baked products. Emphasis is placed on conformance of sanitation and hygienic work habits with health laws. Course content reflects American Culinary Federation Educational Institute cook and pastry apprenticeship training objectives, along with Retail Bakery Association training program. Topics include: baking principles, baking ingredients, preparation of baked goods, baking sanitation and hygiene, and baking supplies and equipment.

**CUL 124 Restaurant and Hotel Baking 3/8/6**

(Prerequisite: Program admission) Provides in-depth experience in preparing many types of baked goods commonly found in restaurants and hotels. Course content reflects American Culinary Federation and Retail Bakery Association training objectives and provides background for those aspiring to become pastry chefs or bakery supervisors. Topics include: breads, pies, cakes, pastry dough, puff pastry, icing, filling, and candy.

**CUL 127 Banquet Preparation and Presentation 1/8/4**

(Prerequisite: CUL112) Provides experience in preparation of a wide variety of quality foods. Course content reflects American Culinary Federation Educational Institute apprenticeship training objectives. Topics include: kitchen operational procedures, equipment use, banquet planning, recipe conversion, food decorating, safety and sanitation, and production of quantity food. Laboratory practice is provided.

**CUL 129 Front of The House Service 2/3/3**

(Prerequisite: Program admission) Introduces the fundamentals of dining service/ guest service, dining service positions and functions, international dining services, restaurant business laws, preparation and setup, table side service, and merchandising.

**CUL 130 Pantry, Hors D'Oeuvres and Canapes 2/8/5**

(Prerequisite: CUL114) Introduces basic pantry manager principles, utilization, preparation, and integration into other kitchen operations. Course content reflects American Culinary Federation Educational Institute apprenticeship pantry, garnishing, and presentation training objectives. Topics include: pantry functions, basic garnishes, breakfast preparation, buffet presentation, cold preparations, cold sandwiches, salads and dressings, molds, garnishes and cold hors d'oeuvres.

**CUL 132 Garde Manger 2/8/5**

(Prerequisite: CUL100, CUL 110, CUL 112) Emphasizes basic garde manger utilization and preparation of appetizers, condiments, and hors d'oeuvres. Topics include: hot and cold hors d'oeuvres; salads, dressing, and relishes; sandwiches; pates and terrines; chateaufroids, gelees, and molds; canapes; and garnishing, carving, and decorating.

**CUL 133 Food Service Leadership and Decision Making 5/0/5**

(Prerequisite: Provisional admission) Familiarizes the student with the principle and methods of sound leadership and decision making in the hospitality industry. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various decision making processes, the ability to make sound and timely decisions, leadership within the framework of the major functions of the management, and delegation of authority and responsibility in the hospitality industry.

**CUL 137 Nutritional Food and Menu Management 1/6/3**  
(Prerequisite: CUL 100, CUL 110, CUL 112) Emphasizes menu planning for all types of facilities, services, and special diets. Topics include: menu selection, menu development and pricing, nutrition, special diets, and cooking nutritional foods.

**CUL 215 Contemporary Cuisine I 2/8/5**  
(Prerequisite: CUL 100, CUL 110, CUL 114) Emphasizes all modern cuisine and introduces management concepts necessary to the functioning of a commercial kitchen. Topics include international cuisine, cuisine trends, kitchen organization, kitchen management, kitchen supervision, and competition entry.

**CUL 216 Practicum/Internship 1/30/11**  
(Prerequisites: All CUL classes except CUL 133) Provides the student with the opportunity to gain management/supervision experience in the actual job setting. Students will be placed in an appropriate restaurant, catering, or other food service business for four days per week throughout the quarter. On the job training topics include restaurant management/on-off premises catering/food service business, supervisory training, management training, kitchen management, restaurant kitchen systems, institutional food systems, kitchen departmental responsibilities, and kitchen productivity.

**CUL 220 Contemporary Cuisine II 2/8/5**  
(Prerequisite: CUL 112, CUL 215) Emphasizes supervision, and management concepts, knowledge, and skills, necessary to restaurant serving contemporary cuisine. Topics include menu selection, layout and design, on/off premise catering, entrepreneurship, and small business management.

**CUL 224 International Cuisine 3/8/6**  
(Prerequisite: CUL 100, CUL 110, CUL 114) Introduces international cuisine and acquisition of advanced cookery techniques. Course content reflects American Culinary Federation Educational Institute cook apprenticeship training objectives and provides background for those aspiring to become chefs. Topics include international cuisine, advanced grill cookery, advanced vegetable cookery, advanced meat cookery, advanced line cookery, and advanced fry cookery.

**DCP 110 Facilitating Access to Community Living I 5/0/5**  
(Corequisite: DCP 113) This is the first of two courses designed to provide people working in direct support roles with the knowledge and tools that will enable their support of people with disabilities within a context that is inclusive, community-based and person centered. Topics include: core values driving community supports, distinct roles of direct support, the MG&A systematic instruction procedures; discovery vs. testing and evaluation; the five accomplishments; accessing the resources of the community; representing and assisting persons with disabilities in community contexts; professional/family relationships; understanding and utilizing social capital to strengthen community participation.

**DCP 111 Facilitating Access to Community Living II 5/0/5**  
(Prerequisites: DCP 110, DCP 113; Corequisite: DCP 114) This is the second of two courses designed to provide people working in direct support roles with the knowledge and tools that will enable their support of people with disabilities within a context that is inclusive, community-based and person centered. It is accompanied by DCP 114, a mandatory practicum. Topics include: positive behavior supports, systematic instruction in community/work places; responsibilities within direct support role regarding rights of individuals receiving services; legal implications for violating rights; recognizing abuse and reporting requirements; recognizing nutritional and emotional health and resources for physical supports; basic life and health supports and dangers associated with common safety and sanitation issues; appropriate medical practices relating to an individual; appropriate work habits and dealing with stress; organizational structures of learning organizations and the purpose and function of community services.

**DCP 113 Direct Support Professional Practicum I 0/6/2**  
(Corequisite: DCP 110) This practicum accompanies DCP 110 involving people working in direct support roles with people with disabilities, in a context that is inclusive, community-based and person centered. Topics include: training practice, demonstrating strategies for using discovery process techniques, identifying/quantifying individual accomplishments, assisting in individual planning processes, preparing resource maps for guiding action plans, providing appropriate representation for persons with disabilities, and identifying community human support systems.

**DCP 114 Direct Support Practicum II 0/9/3**  
(Prerequisite: DCP 110, DCP 113; Corequisite: DCP 111) This practicum is designed to accompany DCP 111, providing guided experience in supporting persons with disabilities in community environments in a manner that is inclusive, community-based and person centered. Topics include: practice using positive behavior supports and teaching strategies in community settings, demonstrating basic knowledge of health and other personal wellness practices, and practice/participation in developing organizational structure that facilitates the effectiveness of direct support staff.

**DDF 100 Drafting Fundamentals 2/8/6**  
(Pre/Corequisite: Provisional admission) Introduces fundamental concepts and operations necessary to utilize microcomputers for developing fundamental drafting techniques. Emphasis is placed on the basic concepts, terminology and techniques necessary for CAD applications. Topics include: history of drafting, safety practices, geometric terms/media sizes, hardware and software care and use, basic entities, CAD commands, line relations, basic CAD applications and geometric construction.

**DDF 101 Introduction to Drafting 2/8/6**  
(Prerequisite: Provisional admission) Emphasizes the development of fundamental drafting techniques. Topics include: safety practices, terminology, drafting equipment care and use, lettering, line relationships, and geometric construction.

**DDF 102 Size and Shape Description I 1/9/5**  
(Pre/Corequisites: DDF 100) Provides multiview and dimensioning techniques necessary to develop views that completely describe machine parts for manufacture. Topics include: multiview drawing and sketching; precision measurement; tolerances and fits; and basic dimensioning procedures and practices.

**DDF 103 Size and Shape Description II 1/9/5**  
(Pre/Corequisites: DDF 102) Continues dimensioning and skill development and introduces sectional views. Topics include: advanced dimensioning practices and section views.

**DDF 105 Auxiliary Views 1/4/3**  
(Pre/Corequisite: DDF 103) Introduces techniques necessary for auxiliary view drawings. Topics include: primary and secondary auxiliary views.

**DDF 106 Fasteners 3/6/6**  
(Pre/Corequisite: DDF 103) Provides knowledge and skills necessary to draw and specify fasteners. Topics include: utilization of technical reference sources, types of threads, representation of threads, specifying threads, fasteners, and welding symbols.

**DDF 107 CAD Fundamentals 2/8/6**  
(Provisional Admission) Introduces basic concepts, terminology, and techniques necessary for CAD applications. Topics include: terminology, hardware and software care and use, CAD commands, basic entities, and basic CAD applications.

**DDF 108 Intersections and Development 1/9/5**  
(Pre/Corequisite: DDF 103) Introduces the graphic description of objects represented by the intersection of geometric components. Topics include: surface development, establishment of true length, and intersections of surfaces.

**DDF 109 Assembly Drawings I 1/9/5**

(Pre/Corequisites: DDF 106, DDF108) Provides knowledge and skills necessary to make working drawings. Topics include: detail drawings, orthographic assembly drawings, pictorial assembly drawings, and utilization of technical reference source.

**DDF 111 Intermediate CAD 2/8/6**

(Prerequisite: DDF 107) Continues the development of CAD utilization skills in discipline-specific applications. Topics include: intermediate CAD commands, entity management, advanced line types, block construction, block management, command reference customization, advanced entity manipulation, and system variables.

**DDF 112 3D Drawing and Modeling 2/8/6**

(Pre/Corequisite: DDF 111) Continues the development of CAD utilization skills in discipline-specific applications. Topics include: advanced CAD commands, CAD applications, macro utilization, application utilization, 3-D modeling, rendering, and advanced application utilization, and pictorial drawings.

**DDS 201 Strength of Materials 5/0/5**

(Prerequisites: ENG 1010 and MAT 1015) Provides a non-calculus based overview of the behavior of materials when subjected to different loadings and restraints and the prediction of materials behavior in different situations. Topics include: stress, strain, tension, moments of inertia, and beam bending.

**DDS 203 Surveying I 1/4/3**

(Prerequisites: DDF 107 and MAT 1015) Introduces fundamental plane surveying concepts, instruments, and techniques. Topics include: linear measurement, angles, bearings, and directions, and use of instruments.

**DDS 204 Estimating 2/3/3**

(Prerequisite: ENG 1010, MAT 1015) Introduces the essential skills necessary for assessing the expected materials, labor requirements, and costs for given structures or products. Topics include: blueprint reading, material take-offs, price extension, and utilization of reference sources.

**DDS 205 Residential Architectural Drawing I 2/8/6**

(Prerequisites: DDF 111, DDF 112) Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include: floor, footing, and foundation plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; and specifications.

**DDS 207 Mechanical Systems for Architecture 1/4/3**

(Pre/Corequisites: DDS 205) Reinforces technical knowledge and skills required to develop accurate mechanical and electrical plans. Topics include: heating, ventilation, and air conditioning calculations and plans; electrical calculations and plans; and plumbing calculations and plans.

**DDS 208 Residential and Architectural Drawing II 2/8/6**

(Pre/Corequisites: DDS 207) Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include: footing, foundations and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; specifications; and mechanical and electrical systems.

**DDS 209 Structural Steel Detailing 2/8/6**

(Pre/Corequisite: DDF 111) Develops knowledge and skills required for structural steel detailing and connections design utilized for commercial construction. Topics include: office practices, steel shapes, beam reaction, framed connections, seated connections and columns, base plates, and splices.

**DDS 210 Commercial Architectural Drawing I 2/8/6**

(Pre/Corequisites: DDS 208 and DDS 209 or DDS 241) Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include: structural steel detailing, reflected ceiling plans, rebar detailing, and all plans, specifications, sections and details, and schedules.

**DEN 1010 Basic Human Biology 3/0/3**

(Prerequisite: Program admission) Focuses on basic normal structure and function of the human body with an emphasis on organ systems. Topics include: medical terminology as it relates to the normal human body; and normal structure and function of the human body – cells and tissues, organs and systems, and homeostatic mechanisms.

**DEN 1020 Head and Neck Anatomy 2/0/2**

(Prerequisite: DEN 1010) Focuses on normal head and neck anatomy. Topics include: osteology of the skull, muscles of mastication and facial expression, temporal mandibular joint, blood lymphatic and nerve supply of the head, and salivary glands and related structures.

**DEN 1030 Preventive Dentistry 3/2/4**

(Pre/Corequisite: DEN 1060, DEN 1340) Provides students with theory and clinical experience in the area of preventive and public health dentistry. Topics include: etiology of dental disease, patient education techniques, plaque control techniques, types and use of fluoride, diet analysis for caries control, and dietary considerations for the dental patient.

**DEN 1050 Microbiology and Infection Control 2/2/3**

(Prerequisite: Program admission) Introduces fundamental microbiology and infection control techniques. Topics include: classification, structure, and behavior of pathogenic microbes; mode of disease transmission; body's defense and immunity; infectious diseases; and infection control procedures in accordance with CDC recommendations and OSHA guidelines.

**DEN 1060 Oral Anatomy 5/0/5**

(Prerequisite: Program admission) Focuses on the development and functions of oral anatomy Topics include: dental anatomy, oral histology, and oral embryology.

**DEN 1070 Oral Pathology and Therapeutics 4/0/4**

(Prerequisite: DEN 1060, DEN 1010) Focuses on the diseases affecting the oral cavity and pharmacology as it relates to dentistry. Topics include: identification and disease process, signs/symptoms of oral diseases and systemic diseases with oral manifestations, developmental abnormalities of oral tissues, basic principles of pharmacology, drugs prescribed by the dental profession, drugs that may contraindicate treatment, and applied pharmacology (regulations, dosage, and application).

**DEN 1090 Dental Assisting National Board Examination Preparation 3/0/3**

(Prerequisite: Successful completion of all dental assisting didactic courses or two years of full-time work experience (3,500 hours) as a dental assistant, along with recommendation from the dentist employer) Reviews information concerning all didactic areas tested by the Dental Assisting National Board (DANB). Topics include: collecting and recording clinical data, dental radiography, chairside dental procedures, prevention of disease transmission, patient education and oral health management, office management procedures, and test taking skills.

**DEN 1340 Dental Assisting I 4/6/7**

(Prerequisite: Program admission; Pre/Corequisite: AHS 104, DEN 1050, DEN 1060) Introduces students to chairside assisting with diagnostic and operative procedures. Topics include: four-banded dentistry techniques, clinical data collection techniques, introduction to operative dentistry, dental material basics, and infection control procedures in the dental environment with emphasis on CDC and ADA guidelines.

**DEN 1350 Dental Assisting II 4/6/7**

(Prerequisite: DEN 1340) Focuses on chairside assisting with operative and nonsurgical specialty procedures. Topics include: operative dentistry, prosthodontic procedures (fixed and removable), orthodontics, and pediatric dentistry.



**DEN 1360 Dental Assisting III 3/2/4**

(Prerequisite: DEN 1350) Focuses on chairside assisting in surgical specialties. Topics include: periodontic procedures, oral and maxillofacial surgery procedures, endodontic procedures, management of dental office emergencies, and medically compromised patients.

**DEN 1370 Dental Assisting – Expanded Functions 3/2/4**

(Prerequisites: DEN 1340, DEN 1350; Corequisite: DEN 1360) Focuses on expanded duties of dental auxiliary personnel approved by the Georgia Board of Dentistry. Topics include: expanded functions approved by law for performance by dental assistants in the state of Georgia.

**DEN 1380 Scopes of Professional Practices 2/0/2**

(Prerequisite: Program admission) Focuses on ethics, jurisprudence, and employability skills for the dental assistant. Students will relate integration of didactic and laboratory instruction with clinical experiences. Topics include: ethics and jurisprudence related to the dental office, and employability skills.

**DEN 1390 Dental Radiology 4/2/5**

(Prerequisite: DEN 1020; Corequisite: DEN 1060) After completion of the course the student will be able to provide radiation safety for patient and self, expose x-rays, and prepare dental films for the dental office. Topics include: fundamentals of radiology and radiation safety, radiographic anatomy and interpretation, intraoral and extraoral radiographic techniques, and quality assurance techniques.

**DEN 1400 Dental Practice Management 4/2/5**

(Prerequisite: DEN 1340) Emphasizes procedures for office management in dental practices. Topics include: oral and written communication, records management, appointment control, dental insurance form preparation, accounting procedures, supply and inventory control, and basic computer skills. A computer lab provides basic skills in computer use and utilization of these skills to perform office procedures on a microcomputer.

**DEN 1460 Dental Practicum I 0/6/2**

(Pre/Corequisite: AHS 104, DEN 1050, DEN 1340, DEN 1390) Practicum focuses on infection control in the dental office and assisting with diagnostic and simple operative procedures. Topics include: infection control procedures, clinical diagnostic procedures and general dentistry procedures.

**DEN 1470 Dental Practicum II 0/6/2**

(Pre/Corequisite: DEN 1320, DEN 1410, DEN 1460) Practicum focuses on advanced general dentistry procedures and chairside assisting in dental specialties with special emphasis on nonsurgical specialties. Topics include: advanced general dentistry and specialties.

**DEN 1480 Dental Practicum III 0/24/8**

(Pre/Corequisite: DEN 1030, DEN 1370, DEN 1400, DEN 1340, DEN 1350, DEN 1360, DEN 1460, DEN 1470) Practicum continues to focus on assisting chairside with advanced general dentistry procedures with emphasis on dental office management, preventive dentistry and expanded functions. Topics include: advanced general dentistry procedures, preventive dentistry, dental office management, expanded functions, chairside in specialties, and management of dental office emergencies.

**DET 121 Overview of Diesel Technology, Tools & Safety 2/8/5**

Introduces basic knowledge and skills the student must have to succeed in the Diesel Equipment Technology field. Topics include: an overview of diesel powered vehicles, diesel technology safety skills, basic tools & equipment, reference materials, measuring instruments, shop operation, mechanical fasteners, and welding safety and basic skills.. Classroom and lab experiences on safety, precision measuring, and basic shop practices are highly emphasized.

**DET 123 Preventative Maintenance I 1/8/4**

(Prerequisite: DET 121) Introduces preventative maintenance

procedures pertaining to medium/ heavy duty trucks and heavy equipment. Topics include: engine systems, and cab & hood areas.

**DET 124 Preventative Maintenance II 1/5/3**

(Prerequisite: DET 123) Introduces preventative maintenance procedures pertaining to medium/ heavy duty trucks and heavy equipment. Topics include: Electrical and Electronic Systems, and Frame and Chassis Systems.

**DET 125 Electrical & Electronic Systems 1/8/4**

(Prerequisite: DET 121) Introduces basic electrical/electronic systems used on medium/heavy duty trucks and heavy equipment. Topics include: introduction to diesel electrical & electronic systems, understanding circuits & circuit devices, developing basic diagnosis & repair skills, and understanding vehicle computer controls. Classroom and lab instruction on digital meter usage and interpreting is highly emphasized.

**DET 127 Starting & Charging Systems 3/7/5**

(Prerequisite: DET 125) Introduces starting and charging systems used on medium/heavy duty trucks and heavy equipment. Topics include: battery diagnosis & servicing, starting systems diagnosis & repair, and charging systems diagnosis & repair. Using and interpreting test instruments and troubleshooting is highly emphasized..

**DET 129 Hydraulic Systems 1/8/4**

(Prerequisite: DET 125) Introduces basic hydraulic principles and systems used on medium/heavy duty trucks and heavy equipment. Topics include: hydraulic theory, lines, fittings, & couplings, and fluids & lubricants. Classroom and lab experiences on basic hydraulic systems, preventative maintenance and safety are highly emphasized.

**DET 131 Electronic Controls, and Accessory Systems 3/5/5**

(Prerequisite: DET 125) Introduces electronic controls and accessory systems used on medium/heavy duty trucks and heavy equipment. Topics include: lighting systems diagnosis & repair, driver information systems diagnosis & repair, related electrical components, and miscellaneous electrical accessories. Using and interpreting test instruments and troubleshooting is highly emphasized.

**DET 132 Diesel Engine Overhaul and Servicing I 3/5/5**

(Prerequisite: DET 125) Introduces diesel engines used in medium/heavy duty trucks and heavy equipment. Topics include: introduction to engine principles & procedures, engine disassembly & cleaning procedures, engine components failure analysis, and engine parts procurement. Using and interpreting testing and measuring instruments is highly emphasized.

**DET 133 Diesel Engine Overhaul and Servicing II 2/7/5**

(Prerequisite: DET 132) A continuation of DET 132, introducing diesel engines used in medium & heavy duty trucks & heavy equipment, with emphasis on engine systems and components. Topics include: lubricating systems, cooling systems, cylinder blocks & liners, crankshafts & bearings, pistons & connecting rods, camshafts, gear trains, & timing, cylinder head assemblies, air induction & exhaust systems, and engine brakes & Retarders. Using and interpreting test and measuring instruments is highly emphasized.

**DET 135 Diesel Engine Fuel System, Tune-Up, and Performance 2/7/5**

(Prerequisite: DET 125) Introduces fuel systems used on medium/heavy trucks and heavy equipment. Topics include: basic fuel systems & components, mechanical fuel injection systems, electronic fuel injection diagnosis & repair, emissions, general engine diagnosis, and tune-up & preventative maintenance. Interpreting test instruments along with diagnosing and troubleshooting are highly emphasized.

**DET 137 Heating, Ventilation, and Air Conditioning 2/7/5**

Introduces HVAC systems used in medium/heavy duty trucks and heavy equipment. Classroom instruction on HVAC theory and operation along with local, state, and federal regulations are strongly emphasized. Topics include: HVAC system theory & operation, A/C system component diagnosis & repair, HVAC system diagnosis & repair, operating systems & related controls, and refrigerant recovery, recycling, & handling procedures.

**DET 211 Hydraulic Brake Systems 1/9/4**

(Prerequisite: DET 125) Introduces hydraulic brake systems used on medium/heavy duty trucks. Classroom theory on brake systems along Federal Motor Vehicle Safety Standards (FMVSS) are strongly emphasized. Topics include: introduction to brakes, wheel bearings & seals, antilock brake systems, hydraulic foundation drum brakes, hydraulic foundation disc brakes, hydraulic systems, and power assist units.

**DET 213 Air Brake Systems 1/9/4**

(Prerequisite: DET 125) Introduces air brake systems used on medium and heavy duty trucks. Classroom theory on brake systems along Federal Motor Vehicle Safety Standards(FMVSS) are strongly emphasized. Topics include; air foundation brakes, air supply system, air service circuits, special circuits, and trailer air brake systems.

**DET 215 Steering and Suspension Systems I 1/7/3**

(Prerequisite: DET 125) Introduces steering and suspension systems used on medium/heavy duty trucks. Classroom instruction on Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: Cab components, tires, rims, & wheels, chassis components, manual & power steering systems, steer axles, and suspension systems.

**DET 216 Steering and Suspension Systems II 1/6/3**

(Prerequisite: DET 215) A continuation of DET 215 introducing steering and suspension systems on medium/heavy duty trucks. Classroom instruction on Federal Motor Vehicle Safety Standards (FMVSS) is strongly emphasized. Topics include: suspension systems and vehicle alignment. Emphasis is on rear vehicle/trailer suspensions.

**DET 217 Over The Road (OTR) Truck Power Train Systems I 2/8/4**

(Prerequisite: DET 125) Introduces power train systems used on medium/heavy duty trucks. Topics include: introduction to power trains, clutches & flywheels, electronic systems pertaining to medium/heavy duty power trains, mechanical transmissions, and power take-offs. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized.

**DET 218 Over The Road (OTR) Truck Power Train Systems II 2/8/4**

(Prerequisite: DET 217, DET 125) Continues with subject matter introduced in DET 217. Introduces power train systems used on medium/heavy duty trucks. Topics include: drive lines and differentials & final drives. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized.

**DET 220 Automatic Transmissions 2/5/4**

Introduces automatic transmissions used on medium/heavy duty trucks. Topics include: torque converters and automatic transmissions. Classroom and lab instruction on testing equipment to perform diagnosis and troubleshooting is highly emphasized.

**DIS 150 Directed Individual Study**

Provides the instructor and student an opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshops, seminars, or specialized and/or innovative learning arrangements. Each course is documented with a written agreement between the instructor and the student detailing expected requirements. Varies between 1 and 12 credit hours based upon 30 clock hours equalling 1 credit hour.

**DMM 154 Working in the Warehousing Environment 2/0/2**

Provides students with foundations necessary to work in warehousing and distribution centers. Topics include: an introduction to the certified warehousing specialist program, warehousing and distribution centers, business principles, general plant safety, learning for success, and positive work ethics.

**DMM 156 Warehousing and Workplace Practices 2/0/2**

Provides students with workplace practices necessary to work in warehousing and distribution centers. Topics include: listening skills, working together, managing change, personal wellness, problem solving, positive image, and job interview skills.

**DMM 158 Warehousing and Distribution Process 3/0/3**

Provides students with foundations necessary to operate and analyze appropriately in the warehousing and distribution career fields. Topics include: mission and operations, key warehousing job functions, warehousing productivity measures, and tools for excellence.

**DMM 160 Core Warehousing Skills 4/2/4**

Provides students with core warehousing skills necessary to work in warehousing and distribution centers. Topics include: powered industrial trucks, processing hazardous materials, palletizing, protecting materials and merchandise, and waste recovery in the warehouse and distribution center.

**DMM 162 Warehousing Technology Skills 4/1/4**

Provides students with the tools and skills necessary to work effectively in warehousing and distribution careers. Topics include: warehousing data applications, scanners and data entry, handling systems, introduction to computers and automation, introduction to industrial controls, and methods of inventory management.

**ECE 1010 Introduction to Early Childhood Care and Education 5/0/5**

(Prerequisite: Provisional admission) Introduces concepts relating to the responsibilities and procedures involved in a variety of early childhood care situations. This course addresses key CDA competency goals and functional areas. Topics include: historical perspectives, professionalism, guidance, assessment and curriculum planning, learning environment, cultural diversity and licensing and accreditation.

**ECE 1012 Curriculum Development 3/2/3**

(Pre/Corequisites: ECE 1010, ECE 1030) This course assists the student in understanding that play, developmental integration and active learning are critical to achieving meaningful curriculum for young children. The course develops knowledge and skills that will enable the student to establish a learning environment appropriate for young children. Topics include: instructional media, learning environments, curriculum approaches, development of curriculum plans and materials, transitional activities, approaches to teaching, learning, and assessing, and appropriate assessment strategies.

**ECE 1013 Art for Children 1/4/3**

(Prerequisite: Provisional admission) Introduces the concepts related to creativity in art. This course combines lecture and lab experiences to introduce the many media areas used by children to express themselves. Topics include: concepts of creativity and children's creative development; facilitation of children's creative expression; appreciation of children's art processes and products; and art appreciation.

**ECE 1014 Music and Movement 1/4/3**

(Prerequisite: ECE 1030) Introduces the concepts related to creativity in music and movement. This course combines lecture and lab experiences to introduce media methods, and materials used to foster musical activity and creative movement. Topics include: spontaneous and planned music and movement; media, methods and materials; coordination of movement and music; theoretical foundations, and music appreciation.

**ECE 1021 Early Childhood Care and Education Practicum I 1/6/3**

(Pre/Corequisites: ECE 1030, ECE 1050) Provides the student with the opportunity to gain a supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.

**ECE 1022 Early Childhood Care and Education Practicum II 1/6/3**

(Prerequisite: ECE 1021) Provides the student with the opportunity to gain supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.

**ECE 1025 Professionalism through CDA Certificate Preparation 2/1/2**

(Prerequisite: Program admission, ECE 1010, ECE 1030, ECE 1050, 480 clock hours of work experience within last five years with young children and/or ECE 1021, and ECE 1022)

Provides training in professionalism through Child Development Associate Credentialing Certificate preparation in the following areas: applying for the Child Development Associate Credential through Direct Assessment; professional resource file development; and, strategies to establish positive and productive relationships with families.

**ECE 1026 CDA Certificate Assessment Preparation 2/1/2**

(Prerequisite: Program admission, ECE 1010, ECE 1030, ECE 1050, 480 clock hours of work experience within the last five years with young children or ECE1021 and ECE 1022. Corequisite: ECE1025) Provides opportunities to demonstrate and obtain documentation of student competency. Topics include: Professional resource file completion; parent opinion questionnaires; formal observation; oral interview; and written assessment.

**ECE 1030 Human Growth and Development I 5/0/5**

(Prerequisite: Provisional admission) Introduces the student to the physical, social, emotional, and cognitive development of the young child (0 to 5 years of age). Provides for competency development in observing, recording, and interpreting growth and development stages in the young child, advancing physical and intellectual competence, supporting social and emotional development, and providing positive guidance. Topics include: developmental characteristics, prenatal through age five; observing and recording techniques; ages and stages of development; and an introduction to children with special needs.

**ECE 1050 Health, Safety, and Nutrition 5/0/5**

(Prerequisite: Provisional admission) Introduces the theory, practices, and requirements for establishing and maintaining a safe, healthy learning environment. Topics include CPR and first aid, health issues, safety issues, child abuse and neglect, and nutritional needs of children.

**ECE 1051 Introduction to Family Issues 2/0/2**

(Prerequisite: Program admission) Introduces the student to social and cultural issues which affect families and familiarizes the student with local resources which offer services to families in crisis. Topics include professional responsibilities, family strengths and issues, and community resources.

**ECE 1052 Early Adolescent Development 5/0/5**

(Prerequisite: Program admission) Introduces the student to the physical, social, emotional and intellectual development of the early adolescent (12-15 years of age). Provides learning experiences

related to the principles of human growth, development, and maturation, and theories of learning and behavior. Topics include: developmental characteristics, guidance techniques, and developmentally appropriate practices.

**ECE 2010 Exceptionalities 5/0/5**

(Prerequisites: ECE 1030) Provides for the development of knowledge and skills that will enable the student to understand individuals with special needs and appropriately guide their development. Special emphasis is placed on acquainting the student with programs and community resources that serve families with children with special needs. Topics include: inclusion/least restrictive environment (LRE), physical disabilities and health disorders, intellectual exceptionalities, social/emotional disorders, and community resources.

**ECE 2020 Social Issues and Family Involvement 5/0/5**

(Prerequisite: Provisional admission) Enables the student to value the complex characteristics of children's families and communities, and develop culturally responsive practices which will support family partnerships. Students use their understanding to build reciprocal relationships which promote children's development and learning. Students are introduced to local programs and agencies that offer services to children and families within the community. Topics include: professional responsibilities; family/social issues; community resources; family education and support; teacher-family communication; community partnerships; social diversity and anti-bias concerns; successful transitions; and school-family activities.

**ECE 2030 Human Growth and Development II 5/0/5**

(Prerequisite: Provisional admission) Introduces the student to the physical, social, emotional, and intellectual development of human beings from age 6 through the lifespan, emphasizing school aged children (6-12 years of age). Provides learning experiences related to the principles of human growth, development, and theories of learning and behavior. Topics include: developmental characteristics, guidance techniques, ages and stages of development, introduction to children with special needs, and observation and recording techniques.

**ECE 2110 Methods and Materials 5/0/5**

(Prerequisite: ECE 1012) Develops skills to enable the student to work as a paraprofessional in a program for prekindergarten through elementary aged children. Topics include: instructional techniques, curriculum, materials for instructions, and learning environments.

**ECE 2115 Language Arts and Literature 5/0/5**

(Pre/Corequisites: ECE 1030; ENG 1101 (degree), or ENG 1010 (diploma)) Develops knowledge and skills that will enable the student to plan and implement developmentally appropriate listening, speaking, writing, and reading activities for young children. Topics include: reading readiness, oral communication activities, writing readiness, listening comprehension, literature selection, story presentation, stages of language acquisition, and the use of technology in language arts.

**ECE 2116 Math and Science 5/0/5**

(Prerequisite: ECE 1030) Presents the process of introducing science and math concepts to young children. Includes planning and implementation of developmentally appropriate activities and development of methods and techniques of delivery. Topics include: cognitive stages developmental process in math and science, math and science activity planning, and development of math and science materials.

**ECE 2120 Professional Practices and Classroom Management 5/0/5**

(Pre/Corequisite: ECE 2110) Develops knowledge that will enable the student to work as a paraprofessional in a program for pre-kindergarten through elementary aged children. Topics include: professional qualifications, professionalism, application of guidance techniques, and classroom management.

**ECE 2132 Infant/Toddler Development 5/0/5**

(Prerequisite: Provisional admission) Introduces the three developmentally meaningful age periods during infancy. Provides knowledge, grounded in brain and attachment research, about how children learn and the skills and attitudes necessary to support optimum social/emotional, cognitive, and physical development for children from birth to three. Principles of brain development and language and communication will be explored in depth. Special emphasis is placed on experiential learning to show caregivers practical ways of meeting the fundamental needs of all infants in group care settings and of helping them learn the lessons that every infant comes into the world eager to learn. The needs of infants and toddlers with established disabilities as well as those at risk for developmental problems will be examined from the perspective of early intervention and inclusion.

**ECE 2134 Infant/Toddler Group Care 5/0/5**

(Prerequisite: Provisional admission) Provides the knowledge, skills and attitudes necessary to meet the fundamental needs of children from birth to three in group care settings. Establishes a foundation for a responsive, relationship-based curriculum for children birth to three who are in group care settings. Introduces the philosophy behind primary care, continuity of care, and respectful care. Explores ways of creating environments for infant/toddler group care which foster optimum social/emotional, physical and cognitive development, promote cultural sensitivity and encourage positive parent caregiver relations.

**ECE 2142 Family Childcare Program Management 4/3/5**

(Prerequisite: Provisional Admission) Provides the guidelines, responsibilities, and appropriate practices needed for successful management of a Family Child Care Home. Topics include: rules and regulations; professional practices; and program management.

**ECE 2144 - Family Childcare Business Management 5/0/5**

(Prerequisite: Provisional Admission) Provides guidelines and responsibilities for professional business practices associated with the successful establishment and administration of a Family Child Care Home. Topics include: business plans; budgeting; taxes; marketing, record keeping and professional qualifications.

**ECE 2170 Program Administration 5/0/5**

(Prerequisite: Program admission) Provides training in planning, implementation, and maintenance of an effective early childhood program. Topics include: organization, mission, philosophy, goals, and history of a program; types of programs; laws, rules, regulations, accreditation and program evaluation; needs assessments; administrative roles and board of directors; marketing, public and community relations, grouping, enrollment and retention; working with parents; professionalism and work ethics; and time and stress management.

**ECE 2210 Facility Management 5/0/5**

(Prerequisite: Program admission) Provides training in early childhood facilities management. Topics include money management, space management, and program equipment and supply management.

**ECE 2220 Personnel Management 5/0/5**

(Prerequisite: Program admission) Provides training in personnel management in early childhood settings. Topics include: staff records, communication; personnel planning; personnel policies; managing payroll; recruitment, selection, interviewing, hiring, motivating, firing, and staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluations; and ethical responsibilities to employees.

**ECE 2240 Early Childhood Care and Education Internship 0/36/12**

(Prerequisite: Department Approval) Provides the student with the opportunity to gain experience in a simulated or actual work setting. Students will be placed in an approved setting(s) throughout the quarter where planning, implementing, observing, and evaluating activities are the focus of their involvement. An evaluation procedure

will be used by the designee of the institution and the on-site supervisor to critique the student's performance. Topics include: problem solving, use of proper interpersonal skills, application of developmental appropriate practices, professional development, and resource file (portfolio) development.

**ECE 2251 Designing Programs and Environment for School-Age Children and Youth 3/3/4**

(Prerequisite: Program admission) Provides the student with information about preparing appropriate environments and planning and implementing activities for school age children and youth. This class includes 30 hours of lab, during which the student will be observed implementing the concepts learned in class. Topics include: space design, varied choices and program activities to promote interest in athletic/physical development, community involvement, cultural arts, literacy, math, science and technology, and positive social relationships.

**ECG 103 Introduction to Electrocardiography 2/2/3**

(Prerequisite: AHS 1011; Corequisite: AHS 109) Provides an introduction to electrocardiography techniques and record keeping. Emphasis is placed on the knowledge and skills needed to perform ECG on all types of patients. Topics include: review of basic anatomy and physiology of the heart, electrode placement and obtaining ECG tracing, common causes of artifact, record keeping, equipment maintenance, continuous ECG (Holter) monitoring, Medicolegal aspects of healthcare, Universal Precautions, Hospital Safety procedures, and Healthcare Provider course for Basic Life Support.

**ECG 105 Electrocardiography Practicum 0/24/8**

(Prerequisite: AHS 1011, AHS 109, ECG 103) Provides an introduction to clinical practice in the setting of hospitals, clinics, and medical offices. Students must demonstrate regard for the dignity, rights, and privacy of each patient. They must also abide by the policies and procedures of each clinical setting. Students will be able to learn by doing electrocardiography techniques and record keeping. Emphasis is placed on the application of knowledge and skills gained in the classroom. Students will have the opportunity to display their ability to interact appropriately with patients, family members, and other members of the healthcare team. Students may be required to perform Basic Life Support.

**ECO 1101 Principles of Economics 5/0/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing.) Provides a description and analysis of economic operations in contemporary society. Emphasis is placed on developing an understanding of economic concepts and policies as they apply to everyday life. Topics include: basic economic principles, economic forces and indicators; capital and labor; price, competition, and monopoly; money and banking; government expenditures, federal and local; fluctuations in production, employment and income; and the United States economy in perspective.

**ECO 2105 Macroeconomics 5/0/5**

(Prerequisite: Program admission) Provides a description and analysis of macroeconomic operations in contemporary society. Emphasis is placed on developing an understanding of macroeconomic concepts policies. Topics include: basic economic principles, macroeconomic principles, macroeconomic theory, macroeconomic policy, money and banking, and United States economy in perspective.

**EHO 100 Horticulture Science 5/0/5**

Introduces the fundamentals of plant science and horticulture as a career field. Topics include: industry overview; plant parts; plant functions; environmental factors in horticulture; soil function and components; fertilizer elements and analysis; and propagation techniques.

**EHO 101 Woody Ornamental Plant Identification 5/2/6**

Provides the basis for a fundamental understanding of the taxonomy, identification, and culture requirements of woody plants. Topics include: an introduction to woody plants, classification of woody plants, and woody plant identification and culture requirements.

**EHO 102 Herbaceous Plant Identification 5/0/5**

(Prerequisite: Program admission) Emphasizes the taxonomy, identification, and culture requirements of herbaceous plants. Topics include: introduction to herbaceous plants, classification of herbaceous plants, and herbaceous plant identification and culture requirements.

**EHO 103 Greenhouse Operations I 2/3/3**

(Prerequisite: Provisional Admission) Develops a basic understanding of greenhouse design, construction, and environmental factors affecting plant growth. Topics include: greenhouse construction, greenhouse heating and cooling, greenhouse soil functions and components, irrigation types and effects, fertilizer types and applications, and crops for the local area.

**EHO 104 Horticulture Construction 2/5/4**

(Provisional Admission) Develops skills necessary to design and construct landscape features such as retaining walls, landscape paving, and drainage systems. Topics include: tool usage and safety, retaining walls, drainage systems and erosion protection, and landscape paving.

**EHO 105 Nursery Production 2/5/4**

(Provisional Admission) Develops skills necessary to propagate and produce both container and field grown nursery stock. Topics include: industry overview, facility design, propagation techniques and environment, field grown and container production, and managerial functions for nursery production.

**EHO 106 Landscape Design 2/8/5**

(Prerequisite: Program admission) Introduces design principles, drawing skills, and plant selection techniques required to produce landscape plans for residential/ commercial clients. Topics include: landscape design principles; sketching and drawing skills; site analysis; plant and material selection; and landscape design processes.

**EHO 107 Landscape Installation 2/3/3**

(Provisional Admission) Introduces cultural techniques required for proper landscape installation with emphasis on practical application. Topics include: landscape installation procedures and managerial functions for landscape installers.

**EHO 108 Pest Management 5/0/5**

(Provisional Admission) Provides experience in insect, disease, and weed identification and control with emphasis on safety and legal requirements for state licensure. Topics include: identification of insects, diseases, and weeds; safety regulations; equipment use and care; and regulations for licensure.

**EHO 112 Landscape Management 2/8/5**

(Provisional Admission) Introduces cultural techniques required for proper landscape maintenance with emphasis on practical application and managerial techniques. Topics include: landscape management and landscape equipment safety, operation and maintenance and administrative functions for landscape managers.

**EHO 114 Garden Center Management 2/3/3**

(Prerequisite: Program admission) Presents cultural and managerial techniques required for success in the garden center industry. Topics include: garden center establishment, garden center management, and post-production handling and marketing.

**EHO 115 Environmental Horticulture Internship 0/10/3**

(Prerequisites: Completion of all essential fundamental courses) provides the student with practical experience in an actual job setting. This internship allows the student to become involved in on-the-job environmental horticulture applications that require practice and follow through. Topics include: work ethics, skills, and attitudes;

demands of the horticulture industry; horticultural business management; and labor supervision.

**EHO 116 Landscape Contracting 5/0/5**

(Provisional Admission) Provides essential knowledge and skills in landscape contracting with emphasis on landscape business practices and principles, landscape bidding and estimating and managerial skills for the landscape business environment. Topics include: overview of landscape industry, landscape business principles and practices, landscape bidding and estimating and managerial skills for the landscape business environment.

**EHO 131 Irrigation 3/5/5**

(Prerequisite: Provisional admission) Provides students with exposure to the basic principles of hydraulics and fluidics. Special attention is given to watering plant materials in various soil and climatic conditions through the use of irrigation. Topics include: industry overview; fluidics and hydraulics; system design and installation.

**EHO 133 Turf Grass Management 3/5/5**

(Program Admission) A study of turfgrass used in the southern United States. Topics include: industry overview, soil and soil modification; soil fertility; turf installation; turf maintenance; turf diseases, insect, and weeds; estimating costs on management practices.

**EHO 168 Woody Ornamental Plant Identification II 3/4/5**

(Prerequisite: Provisional admission) The identification and use of cultivated varieties of trees, shrubs, vines and groundcovers in landscape plantings. Topics include: identification, culture and use of cultivated varieties of trees, shrubs, vines and groundcovers in landscape plantings.

**EHO 169 Horticulture Spanish 5/0/5**

(Prerequisite: Provisional admission) An introduction to the Spanish language and Latino culture as applied to green industry managers. Topics include: introductory conversational Spanish with an emphasis on green industry vocabulary in the areas of Spanish verbs, nouns and grammar and understanding and appreciating aspects of Latino culture for more effective management.

**EHO 172 Floral Design I 2/6/4**

(Prerequisite: Provisional admission) Develops skills in the arrangement of flowers and filler materials to form marketable arrangements for special occasions. Topics include: floral materials, design, flower conditioning and arrangements.

**EHO 173 Floral Design II 3/5/5**

Continues development of skills in the arranging of flowers and filler materials to form marketable arrangements for special occasions. Topics include: floral materials, floral design principles, and constructing floral arrangements.

**EHO 250 Specialty Landscape Construction Methods 2/5/4**

Construction methods, materials, and safety procedures related to the design of specialty landscape structures to include water features, lighting and garden structures.

**ELC 104 Soldering Technology 1/2/2**

(Prerequisite: Provisional admission) Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include: safety practices, soldering, desoldering, anti-static grounding, and surface mount techniques.

**ELC 106 Direct Current Circuits I 3/2/4**

(Prerequisite: MAT 1012 or MAT 1013 or higher) Introduces direct current (DC) concepts and applications. Topics include: fundamental electrical principles and laws; direct current test equipment; series, parallel, and combination circuits; and basic laboratory procedures and safety practices.

**ELC 108 Direct Current Circuits II 3/2/4**

(Pre/Corequisite: IFC 101, ELC 106, MAT 1013, or MAT 1101) Continues direct current DC concepts and applications. Topics include: complex series/parallel circuits, and DC theorems.

**ELC 109 Alternating Current I 4/6/7**

(Pre/Corequisites: ELC 106, IFC 101)

Introduces the theory and application of varying sine wave voltages and current. Topics include: AC wave generation factors such as peak, peak to peak, average, and RMS values of AC voltage and current; frequency and phase relationship in resistive, RL, RC, and RLC circuits; and impedance, admittance, and conductance power factors calculated from given and/or measured data.

**ELC 110 Alternating Current II 3/2/4**

(Pre/Corequisite: IFC 102, ELC 109) Continues development of AC concepts with emphasis on constructing, verifying, and troubleshooting reactive circuits using RLC theory and oscilloscopes. Topics include: reactive components, simple RLC circuits, AC circuit resonance, passive filters, and non-sinusoidal wave forms.

**ELC 114 Solid State Devices I 3/2/4**

(Pre/Corequisite: ELC 109, IFC 102)

Introduces the physical characteristics and application of solid state devices. Topics include: PN Diodes, power supplies, voltage regulation, and special applications.

**ELC 115 Solid State Devices II 3/2/4**

(Pre/Corequisite: ELC 114, IFC 103) Continues the exploration of the physical characteristics and applications of solid state devices. Topics include: bipolar junction theory, bipolar junction application, and field effect transistors.

**ELC 117 Linear Integrated Circuits 3/2/4**

(Pre/Corequisite: ELC 115) Provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include: operational amplifiers, timers, and three-terminal voltage regulators.

**ELC 118 Digital Electronics I 3/2/4**

(Pre/Corequisite: ELC 114, IFC 103) Introduces the basic building blocks of digital circuits. Topics include: Binary arithmetic, logic gates and truth tables, Boolean algebra and minimization techniques, logic families, and digital test equipment.

**ELC 119 Digital Electronics II 1/9/4**

(Pre/Corequisite: ELC 118) Uses the concepts developed in Digital Electronics I as a foundation for the study of more advanced devices and circuits. Topics include: flip-flops, counters, multiplexers and demultiplexers, encoding and decoding, displays and analog to digital and digital to analog conversions.

**ELC 120 Microprocessors Fundamentals 3/2/4**

(Pre/Corequisite: ELC 119) This course is designed to provide the student with a basic understanding of microprocessor and microcontroller operation, programming, interfacing, interrupts, and troubleshooting. The choice of microprocessor and microcontroller used in the lab experiences and illustration of basic operation is not important. The main objective of the course is to give the student a basic understanding of microprocessor operation and applications.

**ELC 123 Communications Electronics Survey 5/5/7**

(Pre/Corequisite: ELC 115) Introduces the fundamental concepts and devices used in electronics communications. Topics include: transmission, modulation and detection, receivers, transmitters, propagation, antennas, and deterioration.

**ELC 124 Industrial Electronics Survey 3/2/4**

(Pre/Corequisite: ELC 120) Introduces the fundamental concepts and technologies utilized in industrial electronics applications. Topics include: process controls, sensors, motor controls, programmed controls, mechanical devices, fluid power, and robotics.

**ELC 211 Process Control 4/4/6**

(Pre/Corequisite: ELC 120) Introduces industrial process control applications with an emphasis on sensors and signal conditioning. Topics include: symbology and drawing standards, control techniques, sensors and signal conditioning, and ISA and other relevant standards.

**ELC 212 Motor Controls 4/4/6**

(Pre/Corequisites: ELC 115) Introduces the application of motor controls in the industrial environment. Topics include: AC/DC motors, AC/DC drives, MCC and contactors, NEC and NEMA standards, ladder diagrams, and power sources.

**ELC 213 Programmable Controllers 4/3/5**

(Pre/Corequisite: ELC 120) Provides the basic skills and techniques used in industrial application of programmable controls. Topics include: controller hardware, programming, PC applications, and troubleshooting.

**ELC 214 Mechanical Devices 2/3/3**

(Pre/Corequisites: MAT 105, MAT 193) Develops knowledge and skills necessary to transmit mechanical power using common industrial linkage types. Emphasis is placed on use of mechanical devices in combination with electronic controls. Topics include: linkages, motion analysis, gear drives, and preventive maintenance.

**ELC 215 Fluid Power 2/3/3**

(Pre/Corequisites: MAT 1017, MAT 1112) Provides an overview of fluid power operation as applied to industrial electronics. Emphasis is placed on the interfacing of electronic and fluidic systems. Topics include: safety, fluid dynamics, hydraulics, pneumatics, air logic, and electrical interfacing.

**ELC 216 Robotics 1/2/2**

(Pre/Corequisites: ELC 213, ELC 214, ELC 215) Explores robotic concepts, terminology, and basic applications. Emphasis is placed on programming in robotic languages and robot/human interfacing safety practices. Topics include: safety, terminology, languages, and programming.

**ELC 217 Computer Hardware 4/6/7**

(Prerequisite: ELC 120) Provides an introduction to the fundamentals of installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. Topics include installation, configuration, upgrading, diagnosing, troubleshooting, preventive maintenance, basic hardware, printers, and basic networking.

**ELC 218 Operating Systems Technologies 4/6/7**

(Prerequisite: ELC 217) Provides an introduction to the fundamentals of Command Line Prompt, Windows 9X, Windows 2000, and future operating systems. Topics include Operating system fundamentals, installing, configuration, and upgrading; diagnosing and troubleshooting; and networks.

**ELC 219 Networking I 3/3/4**

(Prerequisite: ELC 120) Provides an introduction to networking technologies. Cover a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems and implementing the installation of networks. The course reviews cabling, connection schemes, the fundamentals of LAN and Wan technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting. Topics include: media and topologies, protocols and standards, network implementation, and network support.

**ELC 220 AM and SSB Circuit Analysis 3/2/4**

(Prerequisite: ELC 119)

Reviews communication system concepts and emphasizes an in-depth analysis of amplitude modulation and detection methods. Topics include: communication concepts, AM/SSB modulation, AM/SSB detection, AM/SSB transmitters, AM/SSB receivers, noise/bandwidth considerations, and multiplexing/ demultiplexing.

**ELC 221 FM Circuit Analysis 3/2/4**

(Prerequisite: ELC 220)

Provides in-depth analysis of frequency modulation and detection methods. Topics include: frequency modulation, frequency detection, FM transmitters, FM receivers, basic telemetry concepts, and FM multiplexing/ demultiplexing.

**ELC 222 Advanced Modulation Techniques 3/2/4**

(Prerequisite: ELC 220, ELC 221)

Continues the study of modulation and detection techniques. Topics include: digital modulation techniques, pulse modulation techniques, and sampling techniques.

**ELC 223 Antennas and Transmission Lines 3/2/4**

(Prerequisite: ELC 220)

Provides an understanding of antennas and transmission lines used in communications. Topics include: transmission lines, wave guides, antenna types, antenna applications, and telephone transmission lines.

**ELC 224 Microwave Communications and Radar 5/0/0**

(Prerequisite: ELC 220)

Provides a basic understanding of microwave communications and radar. Topics include: microwave and radar fundamentals, microwave devices, wave guides, specialized antennas, radar systems, and communications systems.

**ELC 225 Optical Communications Techniques 3/2/4**

(Prerequisite: ELC 220)

Surveys the major optical devices used for communications. Topics include: light sources, fiber optic cable, coupling and fusing, light modulation and detection techniques, and system application of light devices.

**ELC 259 Fiber Optic Systems 3/2/4**

(Prerequisite: ELC 119) Introduces the fundamentals of fiber optics and explores the applications of fiber optic transmission systems. Laboratory exercises give students hands-on experience with fiber optic devices and test equipment. Topics include: fundamentals of fiber optics, types of optical fibers, fiber materials and manufacture, cabling, light sources/transmitters/receivers, connectors, splicing, test measurement, and fiber optic system design.

**ELC 260 Telecommunication and Data Cabling 3/2/4**

(Prerequisite: ELC 119) Introduces the basics of cable installation from the initial site survey to splicing cable and making connections. Through laboratory activities, students perform the basic tasks of a cable installer. Topics include: basic standards and practices, cable rating and performance, cable installation and management, testing and troubleshooting, industry standards, pulling cable, and understanding blueprints.

**ELC 261 Telecommunications Systems Installation and Programming 2/3/3**

(Prerequisite: ELC 260) Teaches the installation, programming, testing, and repair of simple and complex telephone systems. Laboratory activities give practical hands-on experience with various telephone systems. Topics include multi-line system installation, system programming, peripheral devices, and customer relations.

**ELC 262 Telecommunications and Data Transmission Concepts 2/3/3**

(Prerequisite: ELC 261) Provides an introduction to basic concepts on telecommunication and data transmission. Topics include introduction to frequency and bandwidth, delineation of signal types and characteristics, methods of modulation and detection, transmission modes, characteristics of transmission media, noise and distortion levels, multiplexing and emerging technologies, and measuring transmission signals.

**ELC 286 CompTIA A+ Certification 5/0/5**

(Prerequisite: ELC 217 and ELC 218 or CIS 122 and CIS 1140)

Prepares the student for taking the CompTIA A+ examination by reviewing the A+ CORE and A+ Operating Systems Objectives. Topics include A+ Core Hardware and A+ Operating System Technologies.

**ELT 106 Electrical Prints, Schematics, and Symbols 3/2/4**

(Prerequisites: IFC 100 and IFC 101) Introduces electrical symbols and their use in construction blueprints, electrical schematics, and diagrams. Topics include: component identification, symbols, schematic diagrams, and print reading.

**ELT 107 Commercial Wiring I 4/3/5**

(Prerequisites: ELT 106, ELT 121 and IFC 100) Introduces commercial wiring practices and procedures. Topics include: National Electrical Code, commercial load calculations, and safety.

**ELT 108 Commercial Wiring II 4/3/5**

(Corequisite: ELT 107) Presents the study of three phase power systems, fundamentals of AC motors controls, the basic transformer connections. Topics include: single phase and three phase step down transformer, AC motor control fundamentals, and transformer connections.

**ELT 109 Commercial Wiring III 4/3/5**

(Corequisites: ELT 107 and ELT 108) Presents the theory and practical application of conduit installation, system design, and related safety requirements. Topics include: conduit installation, electrical system design, and safety.

**ELT 110 State License Preparation 3/12/7**

(Prerequisite: MAT 1012, IFC 101, ELT 119, ELT 120, ELT 121, ELT 106) Provides the student with the rules and regulations they must use while working with electricity. Topics include: general knowledge, wiring protection, wiring method and material, equipment for general use, special occupancies, special equipment, special condition, and tables.

**ELT 111 Single Phase and Three Phase Motors 4/3/5**

(Prerequisites: ELT 119, IFC 100, IFC 101) Introduces the fundamental theories and applications of single phase and three phase motors. Topics include: motor principles and motor identification; National Electrical Manufacturers Association standards; preventive maintenance; and troubleshooting.

**ELT 112 Variable Speed Controls 2/3/3**

(Corequisite: ELT 111) Introduces the fundamentals of variable speed drives, industrial motors, and other applications of variable speed drives. Topics include: air conditioning compressors, AC and DC motors, oscilloscope, solid state devices, and installation procedures.

**ELT 115 Diagnostic Troubleshooting 1/6/3**

(Prerequisite: Advisor's approval) Introduces diagnostic techniques related to electrical malfunctions. Special attention is given to use of safety precautions during troubleshooting. Topics include: problem diagnosis, advanced schematics, and sequential troubleshooting procedures.

**ELT 116 Transformers 3/3/4**

(Prerequisites: IFC 101, ELT 119) Provides instruction in the theory and operation of specific types of transformers. Emphasis will be placed on National Electrical Code requirements related to the use of transformers. Topics include: dual voltage transformers; autotransformers; buck-boost transformers; single and three phase transformers; National Electrical Code requirements; and safety.

**ELT 117 NEC Industrial Applications 2/5/4**

(Corequisite: ELT 109) Provides instruction in industrial applications of the National Electrical Code. Topics include: cutting and installation of conduit; National Electrical Code; systems design and installation; equipment installation; and industrial safety.

**ELT 118 Electrical Controls 3/5/5**

(Corequisites: ELT 111, ELT 112, ELT 108) Introduces line and low voltage and manual and automatic controls, devices and circuits. Topics include: switching circuits, ladder and wire diagrams, manual controls and devices, automatic controls and devices, and application and operation of controllers and controls.

**ELT 119 Electricity Principles II 3/2/4**

(Prerequisite: IFC 100; Corequisites: IFC 101, MAT 1012) Continues the discussion of electrical theory and principles used in residential and commercial applications. Topics include: transformer fundamentals and AC and DC circuit fundamentals.

**ELT 120 Residential Wiring I 3/5/5**

(Prerequisite: IFC 100, IFC 101, ELT 119; Corequisites: ELT 106, ELT 121) Introduces residential wiring practices and procedures. Topics include: residential circuits, print reading, National Electrical Code, and wiring materials.

**ELT 121 Residential Wiring II 5/3/6**

(Corequisite: ELT 120) Provides additional instruction on wiring practices in accordance with the National Electrical Code. Topics include: hand and power tools, branch circuits/feeders, residential single family load calculations, residential multi-family service calculations and installations, and equipment installations.

**ELT 122 Industrial PLC's 4/6/6**

(Prerequisite: ELT 111, ELT 112, ELT 118) Introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installations, and startup procedures. Topics include: PLC hardware and software, PLC functions and terminology, introductory numbering systems, PLC installation and set up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures.

**ELT 151 Grounding and Bonding 2/2/3**

(Prerequisite: Program admission) Presents the theory and practical applications for grounding and bonding systems. Emphasis will be placed on the use of the requirements of the National Electrical Code. Topics include: branch circuit grounding, equipment grounding/bonding, service grounding/bonding, and earth connections.

**EMP 1000 Interpersonal Relations and Professional Development 3/0/3**

(Prerequisite: Provisional admission) Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include: personal skills required for understanding self and others; projecting a professional image; job acquisition skills such as conducting a job search, interviewing techniques, job applications, and resume preparation; desirable job performance skills; and desirable attitudes necessary for job retention and advancement.

**EMS 126 Introduction to the Paramedic Profession 3/1/3**

(Prerequisite: Program admission; Pre/Corequisites: AHS 1011) Introduces the student to the paramedic profession. Discussion centers on functions that extend beyond the EMT scope of practice. Topics include: the EMS system/roles and responsibilities, wellbeing of the paramedic, illness and injury prevention, medical/legal considerations, ethics, ambulance operations, medical incident command, rescue awareness/operations, hazardous materials incidents and crime scene awareness. This course provides instruction on topics in Division 1, Sections 1-5, Division 7, Section 1 and Division 8 sections 1-5 of the USDOT/NHTSA Paramedic National Standard Curriculum.

**EMS 127 Patient Assessment 3/2/4**

(Pre/Corequisites: AHS 1011) Introduces the fundamental principles and skills involved in assessing the pre-hospital patient. Emphasis is on the systematic approach to patient assessment, with adaptations for the medical versus the trauma patient. Topics include: therapeutic communications, history taking, techniques of physical exam, patient assessment, clinical decision-making, EMS communications, and documentation. This course provides instruction on topics in Division 1, Section 9 and Division 3, Sections 1-9 of the USDOT/NHTSA Paramedic National Standard Curriculum.

**EMS 128 Applied Physiology and Pathophysiology 3/0/3**

(Pre/Corequisite: AHS 1011) This course introduces the concepts of pathophysiology as it correlates to disease processes. This course will enable caregivers to enhance their overall assessment and management skills. Disease specific pathophysiology is covered in

each related section of the curriculum. This course covers a review of cellular composition and function, including cellular environment as it relates to fluid and acid-base balances. Content on genetics and familial diseases are discussed. Hypoperfusion, including various forms of shock, multiple organ dysfunction syndrome and cellular metabolism impairment are integral components of this course. The next portion of this section provides information on the body's self-defense mechanisms, the inflammatory response, and variances in immunity. The last topic covered is stress and disease, which includes stress responses and the interrelationships among stress, coping, and disease.

**EMS 129 Pharmacology 3/2/4**

(Prerequisite: Program admission; Pre/Corequisite: MAT 1012) This unit is designed to help the paramedic implement a patient management plan based on principles and applications of pharmacology. Discussion of pharmacology includes: identification of drugs, drug calculations, drug administration techniques and procedures and drug safety and standards.

**EMS 130 Respiratory Emergencies 4/2/5**

(Prerequisites: AHS 1011; Pre/Corequisite: EMS 126, EMS 127, EMS 128, EMS 129) This unit is designed to help the Paramedic assess and treat a wide variety of respiratory related illnesses in the pediatric and adult patient. Topics include a review of anatomy and physiology, pathophysiology of foreign body airway obstruction, recognition of respiratory compromise, use of airway adjunctive equipment and procedures, current therapeutic modalities for bronchial asthma, chronic bronchitis, emphysema, spontaneous pneumothorax, and hyperventilation syndromes. This section also provides expanded information for adult respiratory distress syndrome, pulmonary thromboembolism, neoplasms of the lung, pneumonia, emphysema, pulmonary edema, and respiratory infections. This course provides instruction on topics in Division 2 (Airway), Section I (Airway Management and Ventilation) and Division 5 (Medical), Section I (Respiratory) of the USDOT/ NHTSA Paramedic National Standard Curriculum.

**EMS 131 Trauma 4/2/5**

(Prerequisite: AHS 1011; Pre/Corequisites: EMS 126, EMS 127, EMS 128, EMS 129) This Unit is designed to introduce the student to assessment and management of the trauma patient, to include: systematic approach to the assessment and management of trauma, demonstration of the assessment and management of certain types of trauma patients and bodily injuries. Student should complete the requirements for the Basic Trauma Life Support Course or the Pre-Hospital Trauma Life Support Course.

**EMS 132 Cardiology I 4/2/5**

(Prerequisite: EMS, 126, EMS 127, EMS 128 EMS 129, AHS 1011) Emphasizes the study of the cardiovascular system. Cardiology I will introduce and explore cardiovascular epidemiology, anatomy and physiology, pathophysiology, and electrophysiology. This course will also provide instruction on initial cardiovascular assessment, focused history, detailed physical examination, and electrocardiographic monitoring. Management of the cardiovascular patient will be taught in Cardiology II. At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the USDOT/NHTSA Paramedic National Standard Curriculum.



**EMS 133 Cardiology II 3/2/4**

(Prerequisite: EMS 126, EMS 127, EMS 128, EMS 129, AHS 1011; Pre/Corequisite: EMS 132) This course expounds on the objectives in Cardiology I emphasizing advanced patient assessment and management of the cardiac patient. Topics will include advanced cardiovascular assessment, pharmacological intervention, electrical intervention, and emergency resuscitative treatment utilizing the American Heart Association's Advanced Cardiac Life Support (ACLS) Providers course. This course provides instruction on topics in Division 5 (Medical), Section 2 (Cardiology) of the USDOT/ NHTSA Paramedic National Standard Curriculum.

**EMS 134 Medical Emergencies 5/1/5**

(Prerequisites: AHS 1011, EMS 126, EMS 127, EMS 128, EMS 129) Provides an in-depth study of the nervous, endocrine, gastrointestinal, renal, hematopoietic, and immune systems. Topics include epidemiology, pathophysiology, assessment, and management of specific injuries/illnesses. Emphasis is placed on allergies/anaphylaxis, toxicology, environmental emergencies, and infectious and communicable diseases. General/specific pathophysiology assessment and management are discussed in detail for environmental emergencies. Infectious and communicable disease topics include public health principles, public health agencies, infection, pathogenicity, infectious agents, and specific infectious disease processes and their management. This course provides instruction on topics in Division 5 (Medical), Sections 3, 4, 5, 6, 7, 8, 9, 10, and 11 of the USDOT/ NHTSA Paramedic National Standard Curriculum.

**EMS 135 Maternal/Pediatric 4/2/5**

(Prerequisites: AHS 1011, EMS 126, EMS 127, EMS 128, EMS 129) Emphasizes the study of gynecological, obstetrical, pediatric and neonatal emergencies. Maternal/Child combines the unique relationships and situations encountered with mother and child. Provides a detailed understanding of anatomy/physiology, pathophysiology, assessment, and treatment priorities for the OB/GYN patient. Pediatric and neonatal growth and development, anatomy and physiology, pathophysiology, assessment and treatment specifics are covered in detail. Successful completion of a PLS/PALS course is required. This course provides instruction on topics in Division's 5 (Medical), Sections 13 (Obstetrics) and 14 (Gynecology) and 6 (Special Considerations), Sections 1 (Neonatology) and 2 (Pediatrics) of the USDOT/NHTSA Paramedic National Standard Curriculum.

**EMS 136 Special Patients 2/1/2**

(Prerequisites: AHS 1011, EMS 126, EMS 127, EMS 128, EMS 129) Provides an overview of the assessment and management of behavioral emergencies as they pertain to prehospital care. Topics include: communication skills and crisis intervention, assessment and management of the adult and adolescent patient with behavioral emergencies, management of the violent patient, management of the suicidal patient, medical/legal considerations, and stress management. Life span, geriatrics, abuse, special challenges, and chronic care patients are included.

**EMS 201 Summative Evaluation 4/4/5**

(Prerequisite: AHS 1011, EMS 126, EMS 127, EMS 128, EMS 129, EMS 130, EMS 131, EMS 132, EMS 133, EMS 134, EMS 136; Pre/Corequisite: EMS 200) Provides supervised clinical experience in the hospital and prehospital advanced life support settings to include: EMS leadership, summative case evaluations, EKG interpretation and pharmacology. This course also includes a comprehensive paramedic program examination and a board examination review.

**EMS 210 Clinical Applications for the EMT-Paramedic I 0/6/2**

(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor

Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic II", "Clinical Applications for the EMT-Paramedic III", "Clinical Applications for the EMT-Paramedic IV", "Clinical Applications for the EMT-Paramedic V" & "Clinical Applications for the EMT-Paramedic VI", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 211 Clinical Applications for the EMT-Paramedic II 0/6/2**

(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic I", "Clinical Applications for the EMT-Paramedic III", "Clinical Applications for the EMT-Paramedic IV", "Clinical Applications for the EMT-Paramedic V" & "Clinical Applications for the EMT-Paramedic VI", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 212 Clinical Applications for the EMT-Paramedic III 0/6/2**

(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic I", "Clinical Applications for the EMT-Paramedic II", "Clinical Applications for the EMT-Paramedic IV", "Clinical Applications for the EMT-Paramedic V" & "Clinical Applications for the EMT-Paramedic VI", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 213 Clinical Applications for the EMT-Paramedic IV 0/6/2**

(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic I", "Clinical Applications for the EMT-Paramedic II", "Clinical Applications for the EMT-Paramedic III", "Clinical Applications for the EMT-Paramedic V" & "Clinical Applications for the EMT-Paramedic VI", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 214 Clinical Applications for the EMT-Paramedic V 0/6/2**

(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic I", "Clinical Applications for the EMT-Paramedic II", "Clinical Applications for the EMT-Paramedic III", "Clinical Applications for the EMT-Paramedic IV" & "Clinical Applications for the EMT-Paramedic VI", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 215 Clinical Applications for the EMT-Paramedic VI 0/3/1**  
(Prerequisite: Program admission) The course will include clinical hours to be spent in Hospitals, Urgent Care Settings, and Ambulance Clinical Rotations. This course will include all of the EMT-Paramedic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Appendix B (Clinical Objectives) of the Georgia Office of EMS, EMT-Paramedic Curriculum standard. This course will include a minimum of 60 clinical hours, and along with "Clinical Applications for the EMT-Paramedic I", "Clinical Applications for the EMT-Paramedic II", "Clinical Applications for the EMT-Paramedic III", "Clinical Applications for the EMT-Paramedic IV" & "Clinical Applications for the EMT-Paramedic V", will include a minimum skill set and a minimum number of assessments in various categories.

**EMS 1101 Introduction to the EMT Profession 3/2/4**  
(Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 Standard, Module 1 and Module 7. It also covers Sections 1, 2, 3 and 4 of the NHTSA, National Standard Curriculum, EMT-Intermediate-1985. Topics include: basic cardiopulmonary resuscitation/AED, introduction to emergency medical care, roles and responsibilities of the EMT-Intermediate, EMS Systems for EMT-Intermediates, well being of the EMT- Basic, medical/legal and ethical issues, medical-legal aspects for the EMT-Intermediate, blood and airborne pathogens and infectious diseases, the human body, medical terminology, base line vital signs and SAMPLE history, lifting and moving patients, ambulance operations, gaining access, and overviews of HazMat/MCI.

**EMS 1103 Patient Assessment for the EMT 1/2/2**  
(Prerequisite: Program admission; Corequisite: EMC 100) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 3. In addition to the NSC-B 1994 standards, this course also includes the NSC EMT-Intermediate 1985 Standard, Sections 5 and part of Section 6. Topics include: Scene-Size Up, Initial Assessment, Focused History & Physical Exam for both Medical and Trauma Patients, Detailed Physical Exam, On-Going Assessment, Communications/Documentation, and EMS communications for the EMT-I.

**EMS 1105 Airway Management for the EMT 1/2/2**  
(Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 2. In addition to the NSC-B 1994 standards, this course also includes the NSC EMT-Intermediate 1985 Standard, Section 7. The 2002 Supplemental Airway Modules for the NSC-B 1994 curriculum will also be used. Topics include: Airway, Advanced Airway and Basic/Advanced Airway Management.

**EMS 1107 Medical and Behavioral Emergencies for the EMT 2/2/3**  
(Prerequisite: Program admission) The course covers Lessons 1 through 8, and parts of Lessons 10 and 11 of Module 4 of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard. Topics include general pharmacology, respiratory emergencies, cardiovascular emergencies, diabetic/altered mental status emergencies, allergic reactions, poisoning/overdose emergencies, environmental emergencies, behavioral emergencies, and non-traumatic abdominal emergencies.

**EMS 1109 Assessment and Management Across the Lifespan for the EMT 1/2/2**  
(Prerequisite: Program admission) The course covers Lesson 9, and parts of Lessons 10 and 11 of Module 4 of the National Highway Safety Transportation Administration, National Standard Curriculum,

Emergency Medical Technician-Basic, 1994 standard. All of Module 6 of the NSC-B 1994 curriculum is also included. The Georgia Office of EMS specific module for Geriatrics as well as the TCSG specific module for Special Needs Patients is included. Topics include: obstetrical/gynecological emergencies, infants & children, geriatrics and patients with special needs.

**EMS 1111 Trauma Emergencies and WMD Response 3/2/4**  
(Prerequisite: Program admission) The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 5. In addition to the NSC-B 1994 standards, this course also includes portions of Section 6 of the NSC EMT-Intermediate 1985 Standard. The Georgia Office of EMS specific module for Emergency Response to Weapons of Mass Destruction is also included. Topics Include: bleeding and shock, soft tissue injuries, musculoskeletal care, injuries to the head/spine, patient access and extrication, and emergency medical response to WMD.

**EMS 1113 Clinical Applications for the EMT Basic 0/3/1**  
(Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This course will include all of the EMT-Basic Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Basic Curriculum standard. This course will include a minimum of 30 clinical hours.

**EMS 1115 Practical Applications for the EMT- Basic 1/2/2**  
(Prerequisite: Program admission) This course will serve as the integration point for the entire National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, as well as Sections 1 through 7 of the NSC EMT-Intermediate 1985 Standard, and the Georgia Office of EMS specific modules on CPR, Geriatrics and WMD. This course will focus on critical thinking skills and will enhance the assessment based management skills of EMT students. Topics include: Assessment Based Management for the EMT-Basic.

**EMS 1201 Pharmacology and Shock/Trauma Management for the EMT-Intermediate 2/2/3**  
(Prerequisite: Program admission) The course covers Section 8 of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Intermediate, 1985 standard. Topics Include: general pharmacology review, IV and IO therapy and shock/trauma assessment and management.

**EMS 1203 Clinical Applications for the EMT-Intermediate I 0/3/1**  
(Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. The course will include all of the EMT-Intermediate Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Intermediate Curriculum standard. The course will include a minimum of 30 clinical hours, and along with Clinical Applications for the EMT-Intermediate - II, will include a minimum skill set.

**EMS 1205 Clinical Applications for the EMT-Intermediate II 0/3/1**  
(Prerequisite: Program admission) The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This course will include all of the EMT-Intermediate Clinical Procedures Requirements With Accompanying Psychomotor Objectives listed under Module-C (Clinical) of the Georgia Office of EMS, EMT-Intermediate Curriculum standard. This course will include a minimum of 30 clinical hours, and along with Clinical Applications for the EMT-Intermediate - I, will include a minimum skill set.

**EMS 1207 Practical Applications for the EMT-Intermediate 1/2/2**  
(Prerequisite: Program admission) This is the final course for those pursuing EMT-Intermediate Certification. This course expands upon the critical thinking skills and assessment based management techniques covered in the 'Practical Applications for the EMT-Basic' course. This course integrates all components of the US DOT EMT-Basic 1994 Curriculum as well as the US DOT EMT-Intermediate 1985 Curriculum, and all Georgia specific modules for the EMT-Basic and EMT-Intermediate curricula. Preparation for the national certification exam for EMT- Intermediate/85s will be paramount throughout the course, and students will be required to complete this course prior to being eligible to sit for the National Registry Intermediate-1985 Exam. Topics will include skills competency verification and assessment based management techniques for the EMT-Intermediate.

**ENG 096 English II 5/0/5 I.C.**

(Prerequisite: Placement by diagnostic testing) Emphasizes standard English usage. Topics include: capitalization, subjects and predicates, punctuation, sentence structure, correct verb tenses, standard spelling, and basic paragraph development.

**ENG 097 English III 5/0/5 I.C.**

(Prerequisite: ENG 096 with a grade of C\* or better or placement by diagnostic testing) Emphasizes the rules of grammar, punctuation, and spelling in order to ensure a smooth transition into communicating orally and in writing. Topics include: basic grammar review, use of punctuation marks, use of capitalization, recognition of clauses and phrases, application of the rules of spelling, writing varied and complicated sentences, and writing simple paragraphs.

**ENG 098 English IV 5/0/5 I.C.**

(Prerequisite: ENG 097 with a grade of C\* or better or placement by diagnostic testing) Emphasizes the ability to communicate using written and oral methods. Topics include: construction of basic paragraphs; proofreading to eliminate errors in mechanics, punctuation, and spelling; and presenting written and oral reports.

**ENG 1010 Fundamentals of English I 5/0/5**

(Prerequisites: Program admission level English and reading competency) Emphasizes the development and improvement of written and oral communication abilities. Topics include: analysis of writing techniques used in selected readings, writing practice, editing and proofreading, research skills, and oral presentation skills. Homework assignments reinforce classroom learning.

**ENG 1012 Fundamentals of English II 5/0/5**

(Prerequisites: ENG 1010 with a grade of C or better) Provides knowledge and application of written and oral communications found in business situations. Topics include: writing fundamentals and speaking fundamentals.

**ENG 1101 Composition and Rhetoric 5/0/5**

(Prerequisites: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing) Focuses on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation, and also including introductory use of a variety of research skills. Explores the analysis of expository essays and creative nonfiction about issues in the humanities and in society. The course includes a review of grammar and stylistic usage in proofreading and editing, with emphasis on the rhetorical function of these mechanics. Topics include writing analysis and practice, revision, and research.

**ENG 1102 Literature and Composition 5/0/5**

(Prerequisites: ENG 1101 with a grade of C or better) Develops writing skills beyond the levels of proficiency required by ENG 1101, emphasizes interpretation and evaluation, and incorporates a variety of more advanced research methods. Emphasizes the student's ability to read literature and literary criticism analytically and meaningfully and to communicate that information clearly. Students analyze, critically interpret, and evaluate the form and content of a range of literary texts and practice various strategies of writing.

Topics include reading and analysis of fiction, poetry, and drama; advanced research methods; and writing about literature.

**ENG 1105 Technical Communications 5/0/5**

(Prerequisite: ENG 1101 with a grade of C or better) Emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include: reference use and research, device and process description, formal technical report writing, business correspondence, and oral technical report presentation.

**ENT 101 Planning for Success 5/0/5**

Provides the student with an understanding of the planning process as it relates to owning and operating a business. Students are required to choose an idea for a new business and then evaluate, refine and expand that initial concept into a written feasibility plan. The course uses tested, proven materials to equip the student with the essential skills and critical analysis needed to plan and create a successful small business.

**ENT 102 Business Startup Fundamentals 5/0/5**

Emphasis is placed on legal structure, permitting and licensing, financing, accounting, risk management and operation of a new business. Students are required to write a business plan.

**ENT 103 Legal Environment of Small Business 5/10/5**

This course will introduce law and its relationship to business. By combining legal theory with actual cases, students will discover practical answers to common dilemmas often faced by beginning entrepreneurs, thus saving time and money.

**EST 100 Introduction to Esthetics 6/2/5**

(Prerequisites: Program admission) Introduces the fundamental theory and practices of the Professional Esthetician. Emphasis will be placed on professional practices and safety. Topics include: state and local laws, rules and regulations, professional image, history of the skin, care and use of cosmetics, bacteriology, sterilization and sanitation, chemistry for estheticians, ingredients and product analysis, and hazardous duty standards act and blood and bodily fluids and OSHA updates.

**EST 101 Anatomy and Physiology of the Skin 5/0/5**

(Prerequisites: EST 100) Introduces anatomy and physiology; disorders of the skin and nutrition and health of the skin. Topics include: cells/tissues/organs, skeletal system, muscular system, nervous system, circulatory system, endocrine system, excretory system, respiratory system, digestive system, structure of the skin, disorders of the skin, and nutrition and health of the skin.

**EST 102 Skin Care Procedures 13/6/6**

(Prerequisites: EST 101) Introduces the theory, procedures, and products used in the care and treatment of the skin. Topics include: client consultation and preparation, cleansing the skin, techniques for professional massage, facial treatments and body treatments, aromatherapy, body wraps, reflexology, blood, bodily fluids, and OSHA updates.

**EST 103 Electricity and Facial Treatment 14/6/7**

(Prerequisites: EST 102) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: skin analysis equipment, basic skin care products, basic electricity, men's skin care products, post consultation and home care, mechanical versus chemical exfoliations, microdermabrasion, and advanced product types and features.

**EST 104 Advanced Skin Care 12/2/5**

(Prerequisites: EST 103) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: intrinsic aging, analysis of sensitive skin, treatment for hyperpigmentation, causes of acne, methods of holistic therapy, joining a medical team, and preoperative and postoperative care.

**EST 105 Color Theory & Makeup 9/2/4**

(Prerequisites: EST 102) Provides instruction on and application of techniques and theory in the treatment of the skin. Topics include: morphology of hair, hair removal, sanitation, eyebrow shaping, waxing, ingrown hair service, color theory, face proportions and shape, choosing and using makeup products, makeup tools, basic makeup application, camouflage therapy, and medical application.

**EST 106 Esthetics Practicum I 18/0/6**

(Prerequisites: EST 105) Provides laboratory experience necessary for the development of skill levels to be a competent esthetician. The allocation of time to the various phases of esthetics is prescribed by the state board of cosmetology. This course includes a portion of the hours for licensure. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.

**EST 107 Esthetics Practicum II 18/0/6**

(Prerequisites: EST 106) Provides experience for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of conduct and positive attitudes. The requirements for this course will be met in a laboratory setting. Topics include: body treatments, aromatherapy, reflexology, facials, and hair removal.

**FIN 191 Introduction to Finance 5/0/5**

Provides an introduction to financial markets, institutions, and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds, and the financial principles and concepts behind sound financial management. Topics include: financial systems of the United States, business finance management, financing other sectors of the economy, and time value of money.

**FSC 102 Emergency Service Fundamentals 2/2/3**

(Prerequisites: Fire Fighter I Certificate Program Entrance Requirements) Emergency Service Fundamentals includes: Fire Department Orientation, Fire Department Communication, Infection Control, First Aid, CPR, and Hazardous Materials First Responder Awareness Level. The emergency medical care capabilities are entrance requirements for other basic fire fighter training in NFPA 100 1, Standard for Fire Fighter Professional Qualifications, 1997 editions. Students Will Receive: CPR Certification First Aid Certification Infection Control Certification (If Available) Haz Mat Awareness Certification Students possessing equivalent training and credentials and meeting the Fire Fighter I Entrance Requirements may challenge an exemption test for FSC 102 Emergency Service Fundamentals.

**FSC 103 Basic Fire Fighter: Module I 4/4/6**

(Pre/Corequisites: FSC 102, program admission) Students representing Fire Departments must provide full protective clothing and breathing apparatus. This is the first course for basic fire fighting skills. It is physically demanding with practical fire fighting activities throughout. This course meets or exceeds the objectives of the standard Georgia Fire Academy Module I course including: Fire Fighter Orientation and Safety; Protective Clothing; Fire Behavior; Breathing Apparatus; Ropes, Knots, and Hoisting; Ladders; Forcible Entry; Ventilation; Fire Streams; Hose and Appliances; Water Supply; Introduction to Fire Control; Fire Rescue; Safety Review and Work Stations; Salvage; Overhaul; Structural Fire Simulations; Physical Training/Skill Review (daily); Practical Testing/ Study Groups; and Written Testing. A final written test will be administered by Georgia Fire Academy with equivalent credit, and a Georgia Fire Academy Module I Certificate will be issued to successful candidates. Students who possess equivalent training and credentials and meet the Fire Fighter I Entrance Requirements may take an exemption test for FSC 103 Basic Fire Fighter: Module I.

**FSC 104 Basic Fire Fighter Module II 2/2/3**

(Prerequisites: Fire Fighter I Certificate Program Entrance Requirements; FSC 102, FSC 103) Students representing Fire

Departments must provide NFPA compliant, full protective clothing and breathing apparatus. This class contains hands on live fire training and other physically demanding fire fighting activities. Topics include: Life Safety Ropes and Equipment; Portable Fire Extinguishers; Sprinkler operations; Water Supplies; Fire Tactics and Safety; Foam Fire Streams; Ground Cover/Wildland Fires; Class A Fires; Dumpster Fires; Vehicle Fires; Structural Fires; Emergency Response to Fires; Practical Testing/ Study Groups; and Written Testing. A final written test will be administered by Georgia Fire Academy with equivalent credit, and a Georgia Fire Academy Module II Certificate will be issued to successful candidates.

**FSC 105 Fire And Life Safety Educator 1 5/0/5**

(Prerequisites: Fire Fighter I Certificate Program Entrance Requirements; FSC 102, FSC 103) Most structural fires, fire deaths, and fire injuries occur in the home. This course addresses some of the most important responsibilities of the modern fire services: teaching the public to prevent, or if needed, escape fires and related emergencies. We have adopted the approach that we must learn from each incident, then put the information to work to prevent fires and fire losses through public fire and life safety education. Topics include: The Fire Fighters Responsibility for Fire Investigation; Fire Reporting; Introducing to the Use of Fire Data; Home Fire Safety Inspections; Introductions to Fire and Life Safety Education; Fire and Life Safety Fundamentals; Fire and Life Safety Resources; Planning Fire and Life Safety Education; Evaluating and Selecting Educational Materials; Working with the Media; Preparing Instruction; Teaching Techniques; Fire and Life Safety Education Pre-sentation; Presentation Evaluation; and Written Testing. Successful candidates will receive a Georgia Fire Academy certificate and NPQ Certification for Fire and Life Safety Educator I.

**FSC 106 Fire Prevention, Preparedness, and Maintenance 2/2/3**

(Prerequisite: FSC 104) This course expands upon knowledge from FSC 102, 103, and 104 and will emphasize pre-incident survey, maintenance and testing of various fire service tools and equipment, service testing of fire hose, and testing of fire hydrants for operability and flow. This is one of three courses designed to give the Fire Fighter I the knowledge and skills for testing at the NPQ FF-2 Level.

**FSC 107 Introduction to Technical Rescue 5/3/6**

(Prerequisite: FSC 102, FSC 103, FSC 104, FSC 141) This course will expand upon knowledge from FSC 102, 103, and 104 and will emphasize duties involved in performing activities related to accessing and disentangling victims from motor vehicle accidents and helping special rescue teams. This is 1 of 3 courses designed to give the Fire Fighter I the knowledge and skills for testing for the NPQ FF-2 Level.

**FSC 108 Fire Grounds Operations 3/2/4**

(Prerequisite: FSC 102, 103, 104, FSC 141 certification NPQ FF1, certification NPQ Hazardous Materials Operations; Corerequisite: FSC 106 ) Emphasizes skill development for safe fire ground operations to include: communications of the fire incident; attach and extinguishment of interior structural fire; extinguishment of ignitable liquid fire; and the control of a flammable gas cylinder fire. The documentation and reporting of fire incidents is also included in this course.

**FSC 141 Hazardous Materials 5/0/5**

(Prerequisite: Program admission) Study of basic fundamentals of chemistry used in fire science, types of chemical and processes; study of laws pertaining to use storage, and transportation of chemicals — specifically hazardous chemicals. Emphasis is placed on emergency service in combating, controlling, and coordinating a hazardous materials incident.

**FST 100 Introduction to Criminal Justice 5/0/5**

An overview of the American Criminal Justice System emphasizing the organizational and jurisdictional interrelationships of the Criminal Justice System components at the local, state, and federal levels. The history, development, and philosophy of the system components, including the use of forensic science at each jurisdictional level will be studied. Career opportunities and employment requirements will be explored.

**FST 205 Criminal Behavior 5/0/5**

Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. A psychosocial perspective is used to study factors related to offending behavior and criminal behavioral patterns. Classification systems, prediction models, profiling, and intervention programs will be studied.

**FST 206 Introduction to Forensic Science 5/0/5**

The philosophical, rational and practical framework that supports a case investigation will be outlined. The unifying principles of forensic science, the rooting of forensic science in the pure sciences, and the unique ways in which a forensic scientist must think will also be discussed. The experimental method and other methodologies used in forensic analysis will be explored. Topics will include various subdisciplines in forensic science.

**FST 210 Crime Scene Investigation I 4/3/5**

(Prerequisite: FST 206 with a C or better) The course will examine the principles of forensic science specifically the various types of physical evidence, classification of evidence and the role of physical evidence in a criminal investigation. Topics include: class and individual characteristics of evidence, security and protection of a crime scene, documentation of a crime scene, photography, sketching, proper search techniques, evidence collection, fingerprint processing and enhancement, and release of the crime scene. The legal requirements of a crime scene, chain of custody and crime scene equipment are additional topics.

**FST 211 Crime Scene Investigation II 4/3/5**

(Prerequisite: FST 210 with a C or better) This course will explain the procedures and techniques of crime scene investigation, processing, analysis and reconstruction. Topics include special scene techniques, enhancement reagents, field and presumptive tests, videotaping a scene, alternate light sources, bloodstain pattern analysis, shooting reconstruction and crime scene reconstruction.

**FST 214 Documentation and Report Preparation 4/3/5**

Explains and demonstrates the effectiveness of quality notes, reports, and accurate documentation in the criminal investigation process. An examination of preparing a report, its content, elements, mechanics and format will be discussed and demonstrated. Topics include: field notes, documentation of observations, factual report writing, property and evidence reports, proper grammar, laboratory reports, follow-up reports and characteristics essential to quality report writing.

**FST 215 Case Preparation and Court Room Testimony 3/6/5**

Examines the case file preparation, pre-trial conference, criminal procedure, rules of evidence and direct and cross examination during testimony. Topics include: structure of a case file, fact and expert witnesses, pertinent case law, property and evidence reports, investigative and laboratory reports, and identifying the witness's responsibility before, during and after trial. The sequence and procedure of the criminal trial process, effective testimony and witness credibility are included.

**FST 228 Bloodstain Pattern Analysis 4/3/5**

(Prerequisite: FST 210 with a C or better) Explains and demonstrates the basic principles of bloodstain pattern analysis. The terminology of blood, crime scene analysis,

and the history of blood will be discussed. Topics such as the motion and directionality of blood, impact spatter, blood patterns, and documentation will be discussed as well as performed.

**FST 230 Criminal Procedure 5/0/5**

Introduces the substantive law of major crimes against persons and property. Topics include: laws of arrest and search and seizure; procedures governing arrest, trial and administration of criminal sanctions; rules of evidence; general court procedures; rights and duties of officers and citizens; and appropriate Supreme Court rulings.

**FST 233 Death Investigation 5/0/5**

(Prerequisite: FST 206 with a C or better) An introduction to the procedures and techniques used to identify deceased individuals and investigate sudden or unexpected death. Topics will include autopsy technique, the manners of death, and specific wounds and injuries.

**FST 235 Forensic Photography 4/3/5**

(Prerequisite: FST 206 with a C or better) The basic principles of photography generation and manipulation will be introduced. Students will learn the basic camera operations including shutter speed, aperture, and lighting. Topics will include macro and micro photography, depth of field, digital cameras, and scene photography. Emphasis will be placed on the application of basic camera techniques to forensic science photography.

**FST 237 Victimology 5/0/5**

(Prerequisite: Program admission) This class will introduce the principles of victimology. Effects of criminal victimization on crime victims and a review of current practices in victim assistance will be examined. Analysis of crime data, victimization patterns, and victimization trends will also be examined.

**FST 239 Computer Forensics 4/4/6**

(Prerequisites: SCT 100, CIS 103, CIS 122, CIS 286) This course will provide students with a solid foundation of computer forensics and investigation tools and techniques. Major personal computer operating system architectures and disk structures will be discussed. Students will learn how to set up an investigators office and laboratory, as well as what computer forensic hardware and software tools are available. The importance of digital evidence controls, how to process crime and incident scenes, details of data acquisition, computer forensic analysis, e-mail investigations, image file recovery, investigative report writing, and expert witness requirements will also be stressed. The course provides a range of laboratory and hands-on assignments that teaches about theory as well as the practical application of computer forensic investigation.

**FST 241 Latent Print Examination 5/0/5**

(Prerequisite: FST 206 with a C or better) Explains the history, biology, and basic principles of friction ridge analysis. Properly recording, processing, documenting, collecting, and preserving latent print evidence will be discussed. Students will also be introduced to the Automatic Fingerprint Identification System (AFIS) and the analysis, comparison, and evaluation of latent prints.

**FST 243 Forensic Firearms and Toolmark Identification 3/4/5**

(Prerequisite: FST 206 with a C or better) The course is an introduction to firearms, ammunition and ammunition components, microscopic comparison of questioned bullets, cartridge cases and toolmarks, distance determination, gunpowder and shotgun pattern analysis, serial number restoration, lock picking techniques, the examination of security devices such as padlocks and safes and the examination of firearm related injuries.

**HCT 110 Hemodialysis Patient Care Technician 10/0/10**

(Prerequisite: AHS 104 , SCT 100) Introduction to Hemodialysis which includes A&P of kidney, renal diet, transplantation, infection control, sterile techniques, complications of hemodialysis, vascular access & cannulation technique, water treatment for hemodialysis, dialysate components, hemodialysis machine setup and techniques used in dialysis centers. Emphasis is placed on the responsibilities of the technician providing the care for the hemodialysis patient in the dialysis centers.

**HCT 120 Clinical Practice 2/8/5**

(Prerequisite: AHS 104, SCT 100, HCT 110) Provides work experience in a clinical setting. Emphasis on teaching patient care technician skills and patient care. Topics include: proper machine setup, initiation of dialysis, monitoring patients while on dialysis & termination of dialysis treatments. Also following proper procedures and protocols per ESRD program.

**HCMT 203 Healthcare Supervision 3/4/5**

(Prerequisite: Program admission) A course dealing with the problems of management of the small working unit (division, department, section, etc.) within a larger health care agency. Included items will be unit goals, identification of problems, staffing needs, monitoring of work progress, unit communications and interpersonal relations with the unit.

**HCMT 204 Healthcare Management 5/0/5**

(Prerequisite: Program admission) A study of the principles of effective management techniques including planning, decision making, organizing, budgeting, communications, and direction.

**HIT 201 Introduction to Health Information Technology 2/2/3**

(Prerequisite: Program admission) This course focuses on orienting the student to the health information profession. Students will also be introduced to primary and secondary records systems, content and structure of health care data and data sets of patient data elements; structure of health care in the United States and an outline of its providers; structure and function of American Health Information Management Association (AHIMA); accrediting, licensing, certifying, and government participation in health care; compilation of medical information throughout the patient's course of treatment in the health care facility.

**HIT 202 Legal Aspects of Health Information Technology 2/2/3**

(Prerequisite: Program admission) This course focuses on the study of legal principles related to patient care, medical records and health information. Also addressed are legal terminology and procedures, court systems, and liability of health care providers. Importance of medical record as a legal document and the effect of confidentiality on release of information function; record retention and destruction of records are studied; current legal issues, ethics and laws are discussed.

**HIT 203 Health Data Management 3/4/5**

(Prerequisite: HIT 201) This course will examine various technologies used for the collection and management of clinical data. Topics include numbering, filing, patient registration, master patient index, monitoring chart completion, tracking chart location, and correspondence; organization, requirements, and contents of disease registries; data abstracting and retrieval techniques, and management of medical transcription services. The methods range from paper to computer based systems, including optical disk and voice recognition.

**HIT 204 Healthcare Statistics and Research 3/2/4**

(Prerequisite: HIT 201, HIT 203) This course analyzes the study of methods and formulas used in computing and preparing statistical reports for health care services and vital records. It also focuses on the study of methods and techniques used in presenting statistical data.

**HIT 205 Performance Improvement 2/2/3**

(Prerequisite: HIT 201, HIT 203) This course introduces the student to the peer review process and the role health information plays in

evaluating patient care. The course investigates the components of performance improvement programs in health care facilities, including quality assessment, utilization management, risk management, and critical clinical pathways. State and local standards are included as well as a review of the federal government's role in health care and orientation to accreditation requirements of various agencies.

**HIT 206 Health Information Technology Practicum I 0/12/4**

(Prerequisite: HIT 201, HIT 202, HIT 203) This is a supervised internship in acute care settings. This course will prepare the student to perform the basic functions and tasks of a health information department. Activities will include application of health information management procedures learned in the classroom and lab. The HIT program director and the health care facility staff will guide the student in accomplishing the objectives set forth in the Professional Practice Experience Handbook. This course is designed to help the student gain entry-level competencies as set forth by the American Health Information Management Association (AHIMA).

**HIT 207 Health Information Technology Practicum II 0/12/4**

(Prerequisite: HIT 201, HIT 202, HIT 203, HIT 206, HIT 215) This course is designed to give the students additional supervised activities in alternative care settings, to include internship in physician's office, nursing homes, home health care agencies and local county health departments.

**HIT 208 Health Information Technology Practicum III 0/12/4**

(Prerequisite: HIT 207, HIT 216, HIT 217) This is a continuation of HIT 206 Practicum I and HIT 207 Practicum II. This course is designed to allow students to apply all functions related to the LILT profession. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job. The student will be given additional advanced health information management experience. The occupation-based instruction is implemented through the use of an internship and all of the following: written individualized training plans, written performance evaluation, and a required bi-weekly seminar.

**HIT 210 Computers in Health Care 1/4/3**

Topics include working with vendors, hardware and software components of computers for medical record applications, methods of controlling privacy, accuracy, and security of health information data in computer systems.

**HIT 215 Coding and Classification I 2/4/4**

(Prerequisite: BIO 2113, BIO 2114, MAS 103, MAS 112, AHS 109, HIT 201, HIT 202, HIT 203) This course provides an introduction to, and application of, professional standards in the assignment of codes to diagnoses and procedures using the International Classification of Diseases – 9th Revision – clinical Modification (ICD-9-CM). Coding rules will be applied to case studies. DRGs will be assigned using a grouper.

**HIT 216 Coding and Classification II 2/4/4**

(Prerequisite: HIT 215) This is an advanced coding class that includes coding of actual hospital medical records. The medical records will be coded based on the coding principles used in HIT 215. This course also focuses on the various methodologies related to reimbursement in the various healthcare settings.

**HIT 217 Coding and Classification III 1/4/3**

(Prerequisite: HIT 215; Corequisite: HIT 216) This course provides an introduction to, and application of, codes using CPT/HCPCS system. Codes will be applied to workbook exercises, case studies, and actual outpatient charts. Codes will be assigned manually as well as by an encoder.

**HUM 1101 Introduction to Humanities 5/0/5**

(Prerequisite: ENG 1101 with a grade of C or better) Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, and literature. The humanities are presented as a source of subjective insights for the understanding of people and society. Topics include historical and cultural developments, and contributions of the humanities.

**IDS 101 Industrial Computer Applications 3/5/5**

(Prerequisite: IFC 101 and SCT 100) Provides a foundation in Industrial computers and computer systems with a focus in linking computers to the plant floor process. Topics include: hardware, software, boot sequence, configuration, troubleshooting, and communication platforms.

**IDS 103 Industrial Wiring 3/9/6**

(Pre/Corequisite: IFC 101, IFC 102) Teaches the fundamental concepts of industrial wiring with an emphasis on installation procedures. Topics include: grounding, raceways, three-phase systems, transformers (three-phase and single-phase), wire sizing, overcurrent protection, NEC requirements, industrial lighting systems, and switches, receptacles, and cord connectors.

**IDS 105 DC and AC Motors 2/3/3**

(Pre/Co requisite: IFC 101, IFC 102) Introduces the fundamental theories and applications of single-phase and three-phase motors. Topics include: motor theory and operating principles, motor terminology, motor identification, NEMA standards, AC motors, DC motors, scheduled preventive maintenance, and troubleshooting and failure analysis.

**IDS 110 Fundamentals of Motor Controls 2/3/3**

(Pre/Co requisite: IDS 105) Introduces the fundamental concepts, principles, and devices involved in industrial motor control. Emphasis is placed on developing a theoretical foundation of industrial motor control devices. Topics include: principles of motor control, control devices, symbols and schematic diagrams, and Article 430 NEC.

**IDS 113 Magnetic Starters and Braking 1/5/3**

(Pre/Co requisite: IDS 110) Provides instruction in wiring motor control circuits. Emphasis is placed on designing and installing magnetic starters in across-the-line, reversing, jogging circuits, and motor braking. Topics include: control transformers, full voltage starters, reversing circuits, jogging circuits, and braking.

**IDS 115 Two-Wire Control Circuits 0/5/2**

(Pre/Co requisite: IDS 110) Provides instruction in two-wire motor control circuits using relays, contactors, and motor starters with application sensing devices. Topics include: wiring limit switches, wiring pressure switches, wiring float switches, wiring temperature switches, wiring proximity switches, and wiring photo switches.

**IDS 121 Advanced Motor Controls 1/3/2**

(Pre/Co requisite: IDS 115) Continues the study and application of motor control circuits with emphasis on sequencing circuits, complex circuits, and motor control centers. Topics include: sequencing circuits, reduced voltage starting, motor control centers, and troubleshooting.

**IDS 131 Variable Speed Motor Control 2/3/3**

(Pre/Co requisite: IDS 121) Provides instruction in the fundamentals of variable speed drives, industrial motors, and other applications of variable speed drives. Topics include: fundamentals of variable speed control, AC frequency drives, DC variable speed drives, installation procedures, and ranges.

**IDS 141 Basic Industrial PLC's 4/6/6**

(Prerequisite: IDS 105, IDS 121) Introduces operational theory, systems terminology, plc installations, and programming procedures for programmable logic controls. Emphasis is placed on plc programming, connections, installations, and start-up procedures. Topics include: plc hardware and software, plc functions and terminology, introductory numbering systems, plc installation and set up, plc programming basics, relay logic instructions, timers and

counters, connecting field devices to I/O cards, and plc safety procedures.

**IDS 142 Industrial PLC's II 4/6/6**

(Pre/Corequisite: IDS 141) Provides for hands-on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated industrial equipment. Emphasis is placed on applying skills developed in previous courses in programmable logic controls (PLC's) in a industrial setting. This course includes advanced skills necessary to complete the students knowledge and skills to understand and work with PLC's in an industrial plant.

**IDS 209 Industrial Instrumentation 4/6/6**

(Prerequisite: IDS 141, IDS 142) Provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: Instrument Tags; Process Documentation; sensing Pressure; Flow, Level and Temperature; Instrument calibration; Basic Control Theory; and Loop tuning.

**IDS 215 Industrial Mechanics 4/6/6**

(Prerequisite: Program admission level math achievement) Provides instruction in basic physics concepts applicable to mechanics of industrial production equipment, and teaches basic industrial application of mechanical principles with emphasis on power transmission and specific mechanical components. Topics include: mechanical tools, fasteners, basic mechanics, lubrication, bearings, and packings and seals.

**IDS 221 Industrial Fluidpower 6/4/7**

(Prerequisite: Program admission level math achievement) Provides instruction in fundamental concepts and theories for safely operating hydraulic components and pneumatic systems. Topics include: hydraulic theory, suction side of pumps, actuators, valves, pumps/motors, accumulators, symbols and circuitry, fluids, filters, pneumatic theory, compressors, pneumatic valves, air motors and cylinders, and safety.

**IDS 231 Pumps and Piping Systems 1/4/2**

(Prerequisite: Program admission level math achievement) Studies the fundamental concepts of industrial pumps and piping systems. Topics include: pump identification; pump operation; pump installation, maintenance, and troubleshooting; piping systems; and installation of piping systems.

**IFC 100 Industrial Safety Procedures 2/1/2**

(Prerequisite: Provisional admission) Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation.

**IFC 101 Direct Current Circuits I 3/2/4**

(Pre/Co requisite: MAT 1012 or MAT 1013 or higher) Introduces direct current (DC) concepts and applications. Topics include: electrical principle and laws; batteries; DC test equipment; series, parallel, and simple combination circuits; and laboratory procedures and safety practices.

**IFC 102 Alternating Current I 3/2/4**

(Pre/Corequisites: ELC 106, IFC 101) Introduces the theory and application of varying sine wave voltages and current. Topics include: magnetism, AC wave generation, AC test equipment, inductance, capacitance, and basic transformers.

**IFC 103 Solid State Devices I 3/2/4**

(Pre/Corequisite: ELC 109, IFC 102) Introduces the physical characteristics and applications of solid state devices. Topics include: introduction to semiconductor fundamentals, diode applications, basic transistor fundamentals, basic amplifiers, and semiconductor switching devices.

**LER 100 4-Cycle Engine Repair 2/6/5**

This course is designed to give students classroom and hands on training in small engines. Competency areas include basic engine theory, engine rebuilding and repair, engine tune-up, fuel system repair, and ignition system repair.

**LER 105 Transaxle Repair 2/6/5**

This course is designed to give students classroom and hands off training in Transaxle Repair. Competency areas include mechanical transaxles and hydrostatic transaxles.

**LER 110 General Lawn Mower Repair 1/4/3**

This course is designed to give students classroom and hands on training in General Lawn Mower Repair. Competency areas include general lawn mower maintenance, steering repair, cutting deck repair, and electrical system repair.

**LER 115 2-Cycle Engine Repair 1/4/3**

This course is designed to give students classroom and hands on training in the repair of lawn equipment with 2-cycle engines. Students will become familiar with edger repair, blower repair, weed-eater repair, and hedge trimmer repair.

**MAS 101 Legal Aspects of the Medical Office 3/0/3**

(Prerequisite: Program admission) Introduces the basic concept of medical assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical assistant's role as an agent of the physician. Provides the student with knowledge of medical jurisprudence and the essentials of professional behavior. Topics include: introduction to medical assisting, introduction to medical law, physician-patient- assistant relationship, medical office in litigation, ethics, bio-ethics and state laws; HIPAA.

**MAS 103 Pharmacology 5/0/5**

(Prerequisites: Program admission, AHS 1011, AHS 109, MAT 1012; Corequisite: MAS 108) Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/ or adverse reactions. Also introduces the basic concept of mathematics used in the administration of drugs. Topics include: introduction to pharmacology; sources and forms of drugs; drug classification; commonly prescribed medications according to body systems; effects of drugs on the body systems; systems of measurement; and calculating adult and pediatric dosages.

**MAS 106 Medical Office Procedures 4/2/5**

(Prerequisite: Program admission) Emphasizes essential skills required for the medical practice. Topics include: office protocol, time management, appointment scheduling, medical office equipment, medical references, mail services, medical records, and professional communication.

**MAS 108 Medical Assisting Skills I 2/10/6**

(Prerequisites: Program admission, AHS 1011, AHS 109, AHS 104; Corequisite: MAS 103) Introduces the skills necessary for assisting the physician with a complete history and physical in all types of medical practices. The course includes skills necessary for sterilizing instruments and equipment and setting up sterile trays. The student also explores the theory and practice of electrocardiography. Topics include: infection control and related OSHA guidelines; prepare patients/ assist physician with age and gender-specific examinations and diagnostic procedures; vital signs/mensuration; medical office surgical procedures and electrocardiography.

**MAS 109 Medical Assisting Skills II 2/10/6**

(Prerequisites: Program admission, MAS 108, MAS 103) Furthers the student knowledge of the more complex activities in a physician's office. Topics include: collection/ examination of specimens and CLIA regulations; urinalysis; venipuncture, hematology and chemistry evaluations; advanced reagent testing, administration of medications; emergency procedures of the medical office, respiratory evaluations, rehabilitative therapy procedures; principles of

radiology and safety; principles of IV therapy and maintain medication and immunization records.

**MAS 110 Medical Insurance Management 1/5/3**

(Prerequisites: Program admission, AHS 1011, AHS 109, MAS 106; Corequisite: MAS 103, MAS 111, MAS 112) Emphasizes essential skills required for the medical practice. Topics include: managed care, reimbursement, and coding.

**MAS 111 Administrative Practice Management 2/5/4**

(Prerequisites: ENG 1010, AHS 1011, AHS 109, BUS 1130, SCT 100; Corequisite: MAS 103, MAS 106, MAS 110) Emphasizes essential skills required for the medical practice in the areas of computer and medical transcription. Topics include: medical transcription/electronic health records; application of computer skills; integration of medical terminology; accounting procedures; and application of software.

**MAS 112 Human Diseases 5/0/5**

(Prerequisites: Program admission, AHS 1011, AHS 109) Provides clear, succinct, and basic information about common medical conditions. Taking each body system, the disease condition is highlighted following a logical formation consisting of: description, etiology, signs and symptoms, diagnostic procedures, treatment, prognosis, and prevention. Topics include: introduction to disease and diseases of body systems including the nutritional and pharmacological implications.

**MAS 117 Medical Assisting Externship 0/18/6**

(Prerequisites: Completion of all required courses except MAS 118, MAS 150; Corequisite: MAS 118, MAS 150) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical office job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include: application of classroom knowledge and skills; functioning in the work environment; listening; and following directions.

**MAS 118 Medical Assisting Seminar 04/18/6**

(Prerequisites: Completion of all required courses except MAS 117, MAS 150; Corequisite: MAS 117, MAS 150) Seminar focuses on job preparation and maintenance skills and review for the certification examination. Topics include: completing a job application, follow-up letter/call, letters of application, résumés, job interviews, letters of resignation, and review of program competencies for employment and certification.

**MAS 150 Clinical Resource Enhancement Specific 0/6/2**

(Prerequisites: Completion of all required courses except MAS 117, MAS 118; Corequisites: MAS 117, MAS 118) Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical specialty office. This clinical practicum enhances the student's knowledge of various practices, diagnostic studies, and treatments.

**MAS 151 Medical Procedures Coding I 3/2/4**

(Prerequisites: AHS 1011, AHS 109, ENG 1010; Corequisites: BUS 1130, MAS 112) Provides an introduction to medical coding skills and application of international coding standards for billing of health care services. Topics include: international classification of diseases, code books format, guidelines and conventions, and coding techniques.

**MAS 152 Medical Procedures Coding II 3/2/4**

(Prerequisite: MAS 151) Continues development of skills and knowledge presented in Medical Procedures Coding I and provides for patient disease and medical procedure coding for billing purposes by health care facilities. Topics include: medical records coding techniques, coding hospital records, and coding outpatient records.



**MAS 153 Physicians' Procedural Coding 2/3/3**

(Prerequisite: MAS 151; Corequisite: MAS 152) Provides the knowledge and skills to apply the coding of procedures for billing purposes using the Physicians' Current Procedural Terminology (CPT) manual. Topics include: format of CPT manual, CPT manual coding guidelines, and coding using the CPT manual

**MAT 096 Learning Support Mathematics II 5/0/5**

**I.C.** (Prerequisite: Placement by diagnostic testing) Teaches the student basic arithmetic skills needed for the study of mathematics related to specific occupational programs. Topics include: number theory, whole numbers, fractions, decimals, measurements, and word problems. Homework assignments reinforce classroom teaching.

**MAT 097 Learning Support Mathematics III 5/0/5**

(Prerequisite: MAT 096 with a grade of C\* or better or placement by diagnostic testing) Emphasizes in-depth arithmetic skills needed for the study of mathematics related to the specific occupational programs and for the study of basic algebra. Topics include: number theory, fractions, decimals, ratio/proportion, percent, measurement/geometric formulas, and word problems. Homework assignments reinforce classroom learning.

**MAT 098 Elementary Algebra 5/0/5**

(Prerequisite: MAT 097 with a grade of C\* or better or placement by diagnostic testing) This course provides instruction in basic algebra. Topics include: introduction to real numbers and algebraic expressions, solving equations and inequalities, graphs of linear equations, polynomial operations, and polynomial factoring.

**MAT 099 Intermediate Algebra 5/0/5**

(Prerequisite: MAT 098 with a grade of C\* or better or placement by diagnostic testing) This course provides instruction in intermediate algebra. Topics include: rational expressions and equations, linear graphs, slope, and applications, systems of equations, radical expressions and equations, and quadratic equations.

**MAT 1011 Business Mathematics 5/0/5**

(Prerequisite: Program admission level math competency) Emphasizes mathematical concepts found in business situations. Topics include: basic mathematical skills, mathematical skills in business-related problem solving, mathematical information for documents, graphs, and mathematical problems using electronic calculators (not to include the touch method).

**MAT 1012 Foundations of Mathematics 5/0/5**

(Prerequisite: Program admission level math competency) Emphasizes mathematical skills that can be applied to the solution of occupational and technical problems. Topics include: properties of numbers, fractions, decimals, percents, ratio and proportion, measurement and conversion, exponents and radicals, and geometric and technical formulas.

**MAT 1013 Algebraic Concepts 5/0/5**

(Prerequisite: Program admission level math competency) Introduces concepts and operations which can be applied to the study of algebra. Course content emphasizes: use of variables, manipulation of algebraic expressions, solution of linear and quadratic equations, evaluation and graphing of linear and quadratic functions, and solution of systems of linear equations.

**MAT 1015 Geometry & Trigonometry 5/0/5**

(Prerequisite: MAT 1013 with a grade of C or better) Introduces and develops basic geometric and trigonometric concepts. Course content emphasizes: measurement using English and metric systems, angle measure, similar triangles, right triangles, two- and three-dimensional geometric formulas, right triangle trigonometry, oblique triangles, and laws of sines and cosines.

**MAT 1017 Trigonometry 5/0/5**

(Prerequisite: MAT 1013 with a grade of C or better) Emphasizes trigonometric concepts. Introduces logarithms and exponential functions. Topics include: geometric formulas, right angle and unit circle trigonometric values, evaluation and graphing of trigonometric

functions, laws of sines and cosines, vectors, complex numbers, logarithms, and logarithmic and exponential functions.

**MAT 1101 Mathematical Modeling 5/0/5**

(Prerequisite: Elementary Algebra ASSET score of 42 or Algebra COMPASS score of 37) This course is designed as an alternative to College Algebra for those students who will not take Trigonometry, Precalculus, or Calculus. It is an applications-driven course that introduces functions using real-world phenomena as models. The major topics include: fundamental concepts of algebra; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real-world phenomena; systems of equations; and additional topics in algebra.

**MAT 1111 College Algebra 5/0/5**

(Prerequisite: Elementary Algebra ASSET score of 42 or Algebra COMPASS score of 37) This course emphasizes techniques of problem solving using algebraic concepts. The major topics include: fundamental concepts of algebra; techniques of solving equations and inequalities; the study of functions and their graphs, including linear, quadratic, exponential, and logarithmic functions; systems of equations; and optional topics including sequences, series, and probability; and analytic geometry.

**MAT 1112 College Trigonometry 5/0/5**

(Prerequisite: MAT 1111 with a C or better) Emphasizes techniques of problem solving using trigonometric concepts. Topics include: trigonometric functions, properties of trigonometric functions, vectors and triangles, inverse of trigonometric functions/graphing, logarithmic and exponential functions, and complex numbers.

**MAT 1113 Precalculus 5/0/5**

(Prerequisite: MAT 1111 with a C or better) This course prepares students for Calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, and trigonometric functions and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.

**MCA 201 Advanced Milling I 5/5/7**

(Prerequisites: MCH 115, MCH 116) Provides instruction in advanced techniques of milling machine operations. Emphasis is placed on skill development through laboratory practice. Topics include: vertical milling, horizontal milling, compound angles, and gear cutting.

**MCA 203 Advanced Milling II 3/7/6**

(Pre/Corequisite: MCA 201) Provides instruction in advanced techniques of milling machine operations. Emphasis is placed on skill development through laboratory practice. Topics include: indexing, rotary table, boring, facing, turning, and straddle milling.

**MCA 205 Advanced Lathe Operations I 5/5/7**

(Prerequisites: MCH 109, MCH 110) Provides instruction in advanced lathe operations and procedures. Emphasis is placed on skill development through laboratory experience. Topics include: thread cutting, precision boring, precision knurling and tapers.

**MCA 207 Advanced Lathe Operations II 3/7/6**

(Prerequisite: MCH 205) Provides instruction in advanced lathe operations and procedures. Emphasis is placed on skill development through laboratory practices. Topics include: eccentric turning, special setup, and tolerance turning.

**MCA 208 Advanced Grinding I 1/4/3**

(Prerequisite: MCH 112) Provides instruction in advanced grinding operations and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include: surface grinding; cylindrical grinding; tool and cutter grinding; grinding theory; and safety.

**MCA 209 Advanced Grinding II 2/3/3**

(Prerequisite: MCA 208) Provides instruction in advanced grinding operations and procedures. Emphasis is placed on skill development through laboratory practices. Topics include: grinding theory, abrasives, wheel preparation, and form grinding.

**MCA 211 CNC Fundamentals 4/6/7**

(Prerequisite: Program admission) Provides a comprehensive introduction to computer numerical controlled (CNC) machining processes. Topics include: safety; computer numerical control; setup and operation; programming and CAD/CAM training.

**MCA 213 CNC Mill Manual Programming 4/6/7**

(Pre/Corequisite: MCA 211) Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include: machine safety, programming calculations, program codes and structure, and program run and editing.

**MCA 215 CNC Lathe Manual Programming 4/6/7**

(Prerequisite: MCA 211) Provides instruction for the safe operation and manual programming of computer numerical controlled lathes. Topics include: machine safety, program codes and structure, and program run and editing.

**MCA 217 CNC Practical Applications 1/9/4**

(Prerequisites: MCA 213, MCA 215) Provides instruction in specialty tooling and multi-axis machining. Students will also gain experience in process control. Topics include: fixture design and manufacturing, practical application and laboratory practice.

**MCA 219 CAD/CAM Programming 2/8/6**

(Prerequisite: MCA 211) Emphasizes the development of skills in computer aided design and computer aided manufacturing. The student will design and program parts to be machined on computer numerical controlled machines. Topics include: hardware and software, drawing manipulations, tool path generation, and program posting and running.

**MCA 230 Mold Design I 5/0/5**

(Pre/Corequisites: MCA 233) Introduces instruction in the design, construction, selection, safe use, and maintenance of molds and equipment. Emphasizes mass production of plastic articles and die cast molds for aluminum and zinc alloys. Topics include: types of plastics; types of molds; mold components; design of runners, gates, and venting systems; and mold drafting.

**MCA 231 Mold Design II 5/0/5**

(Pre/Corequisites: MCA 230, MCA 233, MCA 235) Continuation of Mold Design I in the selection of mold steels, machining methods, heat treatments, polishing, construction theory of molds, and the design of die cast molds. Topics include: selection of mold base steels, machining methods, heat treatments, polishing of molds, theory in the construction of a mold base, heating and cooling of molds, and design and operation of die cast molds and rubber molds.

**MCA 232 Plastics Theory 5/0/5**

(Prerequisites: MCA 230, MCA 233, MCA 235) Emphasizes selection of materials, equipment, tooling, and design requirements for the manufacturing processes of plastics. Topics include: chemical makeup and properties of plastics; molding processes; machinability and application of plastics; thermosetting plastics; and thermoplastic plastics.

**MCA 233 Mold Construction I 0/10/4**

(Pre/Corequisites: MCA 230, MCA 232) Emphasizes practical application of principles of Mold Design I. Students will construct machine mold components. Topics include: assembly of mold components and setup and operation of injection molding machines.

**MCA 235 Mold Construction II 0/13/5**

(Pre/Corequisite: MCA 233) Provides more advanced theories and practice learned in Mold Construction I. Topics include: setup and

operation of molding machines, troubleshooting flaws, corrections flaws, and production of finished piece parts.

**MCH 101 Introduction to Machine Tool 2/8/6**

(Prerequisite: Provisional admission) Introduces the fundamental concepts and procedures necessary for the safe and efficient use of basic machine tools. Topics include: use of hand and bench tools, safety and terminology, precision layout and measurements, bandsaw setup and operation, drilling setup and operation and control process.

**MCH 102 Blueprint Reading I 5/0/5**

(Prerequisite: Provisional admission) Introduces the fundamental concepts necessary to interpret drawings and produce sketches for machine tool applications. Topics include: interpretation of blueprints and sketching.

**MCH 107 Characteristics of Metal/Heat Treatment I 3/2/4**

(Prerequisite: Provisional admission) Introduces the properties of various metals, production methods, and identification of ferrous and nonferrous metals. Topics include: metallurgy, heat treatment, and safety.

**MCH 109 Lathe Operations I 2/8/6**

(Prerequisite: Provisional admission) Provides opportunities for students to develop skills in the use of lathes. Topics include: lathes, lathe calculations, lathe set up, and operations, lathe tooling, and safety.

**MCH 110 Lathe Operations II 2/8/6**

(Prerequisite: MCH 109) Provides further instruction for students to develop skill in the use of lathes. Topics include: safety, advanced lathe setup, internal lathe cutting operations, mating parts manufacturing, and advanced cutting tools.

**MCH 112 Surface Grinder Operations 1/4/3**

(Prerequisite: Provisional admission) Provides instruction in the set up, operations, maintenance, and assembly operations of surface grinders. Topics include: surface grinders and surface grinder maintenance, surface grinder set up, surface grinder operations, and assembly operations.

**MCH 114 Blueprint Reading II 5/0/5**

(Prerequisite: MAT 1015 or MAT 1013 for Diploma or MAT 1111 for Degree) Continues the development of blueprint reading competencies as applied to Machine Tool Technology. Topics include: geometric dimensioning and tolerancing; advanced sectioning; and assembly drawings.

**MCH 115 Mill Operations I 2/8/6**

(Prerequisite: Provisional admission) Provides instruction in the set up and use of the milling machine. Topics include: milling machines, milling machine set up, milling machine operations, and safety.

**MCH 116 Mill Operations II 2/8/6**

(Prerequisite: Provisional admission) Provides further instruction in the use of milling machines. Topics include: advanced mill calculations, advanced mill set up, advanced mill operations, and safety.

**MKT 101 Principles of Management 5/0/5**

(Prerequisite: ENG 1010 or ENG 1101)

Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on personnel management, the basic supervisory functions, supervisory skills and techniques, and the special challenges and demands of supervising employees. Topics include: management theories, including total quality management; motivation, supervision, and evaluation of employees; recruitment, screening, and selection of employees; supervision techniques; and functions of management.

**MKT 103 Business Law 5/0/5**

Introduces the study of contracts and other business obligations in the legal environment. Topics include: creation and evolution of laws, court decision processes, sales contracts, commercial papers, risk-bearing devices, and Uniform Commercial Code.

**MKT 110 Entrepreneurship 6/4/8**

Provides an overview of the activities that are involved in planning, establishing, and managing a small business enterprise. Topics include: planning, location analysis, financing, and development of a business plan.

**MKT 123 Small Business Management 5/0/5**

Summarizes competencies included in the entrepreneurship specialization and provides opportunities for application and demonstration of skills. Topics include: management principles, marketing functions, financial applications, and entrepreneurial growth potential.

**MKT 161 Service Industry Business Environment 2/0/2**

Introduces students to the service industry. Topics include: an introduction to the service industry business environment, an introduction to lifelong learning, work ethics and positive behaviors required for exceptional customer service, an introduction to customer relations, working together successfully on teams, and basic business principles.

**MKT 162 Customer Contact Skills 6/0/6**

Provides students with skills necessary to communicate with customers and successfully manage that relationship in both telephone and face-to-face situations. Topics include: skills to effectively communicate with customers, developing rapport with customers, problem solving in customer service, telephone skills, sales skills in the service environment, managing the difficult customer, and managing the multi cultural customer. Computer-Based Training (CBT) is used to allow students to practice skills using simulated business situations.

**MKT 163 Computer Skills for Customer Service 3/0/3**

Provides students with the fundamentals of computer skills in a customer service environment. Topics include: introduction to computer technology, introduction to the Windows environment, introduction to word processing, introduction to spreadsheets, introduction to databases, introduction to E-mail, and credit card processing.

**MKT 164 Business Skills for the Customer Service Environment 3/0/3**

Provides students with the fundamentals of basic business skills in the customer service environment. Topics include: introduction to business correspondence, basic business calculations, change management, managing multiple tasks and priorities, and tools for team problem solving and service improvement.

**MKT 165 Personal Effectiveness in Customer Service 1/0/1**

Provides students with skills that will allow them to present a positive image to both co-workers and customers. Topics include: personal wellness and stress management, positive image, and job interview skills.

**MSD 100 Principles of Management 5/0/5**

(Prerequisite: Program admission) Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on real life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include: understanding the manager's job and work environment, building an effective organizational culture, leading, directing, and the application of authority, planning, decision-making, and problem-solving, human resource management, administrative management, organizing, and controlling.

**MSD 101 Organizational Behavior 5/0/5**

(Prerequisite: Provisional admission) Provides a general knowledge of the human relations aspects of the senior-subordinate workplace environment. Topics include: employee relations principles, problem

solving and decision making, leadership techniques to develop employee morale, human values and attitudes, organizational communications, interpersonal communications, and employee conflict.

**MSD 102 Employment Law 5/0/5**

(Prerequisite: Provisional admission) Develops a working knowledge of the legal environment of business necessary for management and leadership. Topics include: the legal system and public policy making, civil rights law, the influence of law on human resource management, alternative dispute resolution (ADR), legal selection/hiring practices, accommodation for religion and physical handicap, gender discrimination and harassment, affirmative action, and employee protective laws.

**MSD 103 Leadership 5/0/5**

(Prerequisite: Provisional admission) Familiarizes the student with the principles and techniques of sound leadership practices. Topics include: characteristics of effective leadership styles, history of leadership, leadership models, the relationship of power and leadership, team leadership, the role of leadership in effecting change.

**MSD 104 Human Resource Management 5/0/5**

(Prerequisite: Provisional admission) This course is designed as an overview of the Human Resource Management (HRM) function and the manager and supervisor's role in managing the career cycle from organizational entry to exit. It acquaints the student with the authority, responsibility, functions, and problems of the human resource manager, with an emphasis on developing familiarity with the real world applications required of employers and managers who increasingly are in partnership with HRM generalists and specialists in their organizations. Topics include: strategic human resource management, contemporary issues in HRM: ethics, diversity and globalization; the human resource/supervisor partnership; human resource planning and productivity; job description analysis, development, and design; recruiting, interviewing, and selecting employees; performance management and appraisal systems; employee training and development; disciplinary action and employee rights; employee compensation and benefits; labor relations and employment law; and technology applications in HRM.

**MSD 105 Labor Management 5/0/5**

(Prerequisite: Provisional admission) Provides a student with an overview of the relationship of rank and file employees to management in business organizations. The nature of the workplace, the economic foundations of work organizations, and the history of the relationship between management and labor is examined. The course acquaints the student with the principles of developing positive relationships between management and labor within the context of the legal environment governing labor relations. Topics include: the nature of the American workplace; the economic history of business organizations, the historical roots of labor-management relations; adversarial and cooperative approaches to labor relations; the legal framework of labor relations; employee-employer rights; collective bargaining and union organizing processes; union and nonunion grievance procedures; international labor relations; and the future of labor-management relations in a changing economy. Case studies, readings, and role-plays are used to stimulate workplace applications in labor relations.

**MSD 106 Performance Management 5/0/5**

(Prerequisite: Provisional admission) Develops an understanding of how fostering employer/employee relationships in the work setting improves work performance. Develops legal counseling and disciplinary techniques to use in various workplace situations. Topics include: the definitions of coaching, counseling, and discipline; importance of the coaching relationship; implementation of an effective counseling strategy; techniques of effective discipline; and performance evaluation techniques.

**MSD 107 Employee Training and Development 5/0/5**

(Prerequisite: Provisional admission) Addresses the challenges of improving the performance and career potential of employees, while benefiting the student in their own preparation for success in the workplace. The focus is on both training and career and personal development. Shows the student how to recognize when training and development is needed and how to plan, design, and deliver an effective program of training for employees. Opportunities are provided for the student to develop their own career plans, assess their work-related skills, and practice a variety of skills desired by employers. Topics include: developing a philosophy of training; having systems approach to training and development; the context of training; conducting a needs analysis; critical success factors for employees; learning principles; designing and implementing training plans; conducting and evaluating training; human resource life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include: understanding the manager's job and work environment, building an effective organizational culture, leading, directing, and the application of authority, planning, decision-making, and problem-solving, human resource management, administrative management, organizing, and controlling.

**MSD 112 Introduction to Business & Economics 5/0/5**

(Prerequisite: Provisional admission) This course is designed to provide the student with an overview of the functions of business in the market system. The student will gain an understanding of the numerous decisions that must be made by managers and owners of businesses. Topics include: the market system, the role of supply and demand, financial management, legal issues in business, employee relations, ethics, and marketing.

**MSD 113 Business Ethics 5/0/5**

(Prerequisite: Provisional admission) Provides students with an overview of business ethics and ethical management practices, with emphasis on the process of ethical decision-making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to the students how ethics can be integrated into strategic business decisions and can be applied to their own careers. The course uses a case study approach to encourage the student in developing analytical, problem-solving, critical thinking and decision-making skills. Topics include: an overview of business ethics; moral development and moral reasoning; personal values, rights, and responsibilities; frameworks for ethical decision-making in business; justice and economic distribution corporations and social responsibility; corporate codes of ethics and effective ethics programs; business and society; consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace; and business ethics and the rule of law.

**MSD 114 Organizational Communications and Information Technology 4/2/5**

(Pre/Corequisite: Provisional admission, SCT 100) This course focuses on communication, supervision, and organizations in the age of technology. It builds on the basic computer skills introduced in SCT 100 using computer-based technology to develop skills in applying information technology. The student will create written, verbal, and electronic communication applied to supervisory functions in the work place. Topics include: word processing applications; spreadsheet applications; database applications, presentation technology and applications, graphical interface applications, interpersonal communications; organizational

communications; applications come from communications, human resource management, and general business.

**MSD 115 Retail Management 5/0/5**

(Prerequisite: Provisional admission) Develops a working knowledge of managing a retail business from a variety of perspectives with an emphasis on store management. The emphasis is on contemporary issues in retailing, particularly the process of supervising customer service and dealing with the changing demographics of retailing. An application focus on the use of information technologies, the internet, and electronic retailing is intended to give the student hands-on experience in retail management. Topics include: strategic retail management; store, nonstore, and nontraditional retailing; retail human resource management; developing a customer-focused service strategy; managing customer service; retail operations and financial management; merchandise management; buying and inventory management global, cataloging, and electronic retail management, information technology applications in retailing.

**MSD 116 Business Plan Development 5/0/5**

(Prerequisite ACC 1101; Provisional admission) Provides students with knowledge and skills necessary for a manager or entrepreneur to develop and implement a business plan. Topics include: business/community compatibility, introduction to cash flow and break even analysis, development of product/service idea, determination of market feasibility, determination of financial feasibility, development of market strategy, development of operations outline, and application of financial concepts.

**MSD 117 Small Business Management 5/0/5**

(Prerequisite: Provisional admission) Introduces the essentials of starting, managing, and growing a small business. Topics include: the role of the entrepreneur, pricing, advertising, financing, layout of facilities, inventory control, staffing, purchasing, vendor selection, and relevant laws affecting small business.

**MSD 157 Total Quality Management Principles 5/0/5**

(Prerequisite: Provisional admission) Familiarizes the student with the principles and methods of Total Quality Management (TQM). Topics include: the history of quality control, quality control leaders, quality tools, TQM implementation, team building for TQM, and future quality trends.

**MSD 202 Production/Operations Management 5/0/5**

(Prerequisite: Program admission) This course provides the student with an intensive study of the overall field of production/operations management. Topics include: role of production management/production managers, operational design, capacity planning, aggregate planning, inventory management, project management, and quality control/assurance.

**MSD 205 Service Sector Management 5/0/5**

(Prerequisite: Program admission) This course focuses on supervision in the service sector with special emphasis on team building, quality management, and developing a customer focus. The challenge of providing world-class customer service is addressed through sections on principles of service industry supervision, career development, problem solving, stress management, and conflict resolution. Topics include: principles of service industry supervision, team building, customer service operations, TQM in a service environment, business software applications, communication in the service sector, introduction to information systems, selling principles and sales management, retail management, and legal issues in the service sector.

**MSD 206 Project Management 5/0/5**

(Prerequisite: Provisional admission) Provides a basic understanding of project management functions and processes. Topics include: team selection and management; project planning, definition and scheduling of tasks; resource negotiation, allocation, and leveling; project control, monitoring, and reporting; computer tools for project planning and scheduling; managing complex relationships between project team and other organizations; critical path methodology; and total quality management.

**MSD 210 Team Project 5/0/5**

(Prerequisite: MSD 100, MSD 101, MSD 102, MSD 103, MSD 104, MSD 106, MSD 113, MSD 114, ENG 1101 or ENG 1010) This course utilizes team methodologies to study the field of management. It encourages students to discuss their perception of management practices which have been studied during the management program. Topics include: current issues and problems in management and supervision and state-of-the-art management and leadership techniques. Students will be put into teams, will work on team projects to demonstrate their understanding of the competencies of this course, and will do peer evaluation. Potential team projects could include authoring a management book covering the competencies, videos, web sites, bulletin boards, and slide presentations amongst others.

**MSD 220 Management and Supervision Occupation-Based 0/10/3**

(Prerequisite: MSD 100, MSD 101, MSD 102, MSD 103, MSD 104, MSD 106, MSD 113, MSD 114: All prerequisite courses must be completed with a grade of C or better) Reinforcement of management, supervision, and employability principles in an actual job placement or through a practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of management and supervisory techniques, and professional development. The occupation-based instruction is implemented through the use of a practicum or internship and all of the following: written individualized training plans, written performance evaluation, and a required weekly seminar.

**MUS 1101 Music Appreciation 5/0/5**

(Prerequisite: ENG 1101 with a grade of C or better) Explores the analysis of well-known works of music, their composition, and the relationship to their periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research. Topics include: the creative and critical process, the themes of music, the formal elements of composition, and the placing of music in the historical context, writing analysis, practice, revision, and research about a musical composition or compositions.

**NPT 112 Medical Surgical Nursing Practicum II 0/21/7**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 ; Corequisite: NSG 112) Focuses on and topics include health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health, and universal precautions; nursing care (The definition of nursing care includes using the nursing process, performing assessments, using critical thinking, and providing client education), treatment, pharmacology, and diet therapy of the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems and clients.

**NPT 113 Medical Surgical Nursing II Practicum 0/21/7**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; Corequisite: NSG 113) Focuses on and topics include health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition

of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; client care, treatment, pharmacology, medication administration, and diet therapy related to the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; and standard precautions.

**NPT 212 Pediatric Nursing Practicum 0/6/2**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; Corequisite: NSG 212, NSG 213, NPT 213) Focuses on health management and maintenance and the prevention of illness, care of the family as a whole, care of the child as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the child as a whole, and deviations from the normal state of health in the pediatric client; client care, treatment, pharmacology, medication administration, and diet therapy of the pediatric client; growth and development; and standard precautions.

**NPT 213 Obstetrical Nursing Practicum 0/9/3**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; Corequisite: NSG 213, NSG 212, NPT 212) Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness; care of the individual as a whole; and deviations from the normal state of health in the reproductive system, obstetric clients, and the newborn; client care, treatment, pharmacology, medication administration, and diet therapy related to the reproductive system, obstetric clients, and the newborn; and standard precautions.

**NPT 215 Nursing Leadership Practicum 0/8/2**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; Corequisite: NSG 215) Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of nursing process skills, critical thinking skills, supervision skills, client education skills, group and other TQM skills, and conflict resolution.

**NSG 110 Nursing Fundamentals 5/12/10**

(Prerequisites: AHS 1011, AHS 104, AHS 109, ENG 1010, MAT 1012, PSY 1010, SCT 100) An introduction to the nursing process. Topics include: orientation to the profession, community health, client care, geriatrics, customer/ client relationship, introduction to physical assessment, deviation from the normal state of health, and universal precautions.

**NSG 112 Medical Surgical Nursing 9/0/9**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 Corequisite: NPT 112) Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance, prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; client care, treatment, pharmacology, and diet therapy related to the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; and standard precautions related to the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems.

**NSG 113 Medical Surgical Nursing II 9/0/9**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 Corequisite: NPT 113) Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; client care, treatment, pharmacology, and diet therapy related to the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; and standard precautions.

**NSG 212 Pediatric Nursing 5/0/5**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 Corequisite: NPT 212, NPT 213, NSG 212) Focuses on health management and maintenance and the prevention of illness, care of the child as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the child as a whole, and deviations from the normal state of health in the pediatric client; client care, treatments, pharmacology, and diet therapy of the pediatric client; growth and development; and standard precautions.

**NSG 213 Obstetrical Nursing 5/0/5**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 Corequisite: NPT 213) Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the reproductive system, obstetric clients, and the newborn; client care, treatments, pharmacology, and diet therapy related to the reproductive system, obstetric clients, and the newborn; and standard precautions.

**NSG 215 Nursing Leadership 2/0/2**

(Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110 Corequisite: NPT 215) Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of nursing process, critical thinking skills, supervision skills, client education skills, group and other TQM skills, and conflict resolution.

**ORT 101 Orthopaedic Anatomy and Physiology 5/0/5**

(Prerequisite: Program admission) A study of the skeletal muscular systems with emphasis on soft tissue injuries, fractures, fracture healing, as well as relevant complications. The study of other body systems as they relate to the treatment of orthopedic injuries.

**ORT 102 Orthopaedic Techniques I 2/6/5**

(Pre/Corequisite: ORT 101) Introduction to the cast room to include different types of supplies, instruments, techniques for the application of basic types of splints and casts. Introduction to traction set-ups. This course will include the application of casts and traction in the laboratory setting.

**ORT 103 Introduction to Orthopaedic Surgical Techniques 4/3/5**

(Pre/Corequisite: ORT 101, 102) Provides an overview of the surgical techniques utilized in the orthopedic technology profession and develops the fundamental concepts and principles necessary to successfully participate on an orthopedic surgical team. Topics include: orientation to orthopedic surgical techniques, asepsis and the surgical environment, basic instrumentation and equipment, principles of the sterilization process, and application of sterilization principles.

**ORT 104 Advanced Orthopaedic Anatomy and Physiology 5/0/5**

(Prerequisite: ORT 101) This course provides advanced instruction on orthopedic injuries and diseases. Topics will include the evaluation and treatment of specific orthopedic injuries. Orthopedic diseases will be discussed along with pediatric orthopedics and congenital diseases.

**ORT 105 Orthopaedic Techniques II 2/6/5**

(Prerequisites: ORT 101, 102, 103) This course will have emphasis on advanced casting techniques, assessment and treatment of casting complications, application of specialty casts, advanced traction configurations, and evaluation and treatment for the trauma patient.

**ORT 111 Orthopaedic Technology Practicum I 0/12/4**

(Prerequisites: ORT 101, 102, 103; Corequisites: ORT 104, 105) This course is designed to provide clinical application of orthopaedic technology in a hospital environment. Students participate in the normal day-to-day activities of an orthopaedic service where they develop and refine their skills in the application of orthopaedic casts, set up and application of traction devices and the pre and post operative care of the orthopaedic patient. The student is required to demonstrate clinical orthopedic competencies as part of this course.

**ORT 211 Orthopaedic Technology Practicum II 0/36/12**

(Prerequisite: ORT 111) This course is a continuation of ORT 111 and is designed to teach the clinical application of orthopaedic techniques in the clinical environment. Students will apply casts, assist in the reduction of fractures, apply and maintain traction configurations and devices, and assist the orthopaedic surgeon in minor and major surgical procedures.

**PGT 101 Introduction to the Printing Industry 6/4/8**

(Prerequisite: Provisional admission) Introduces the beginning student to overview and the fundamentals of printing industry. Emphasizes the overview of graphic design. Topics include: first aid and safety, graphic design, electronic imaging, reproduction photography/digital reproduction, image assembly, offset duplication, bindery, measurement, industry overview, and printers math.

**PGT 102 Basic Publications Design 3/7/6**

(Prerequisite: Provisional admission) Introduces beginning students to basics and principles of publications design. Topics include: safety, design principles, basic desktop publishing, software, file management, typography, measurement, page layout, and quality issues.

**PGT 103 Advanced Publications Design 3/7/6**

(Prerequisite: PGT 102) Focuses on the advanced study of publications design. Topics include: safety, page layout, basic scanning, graphics, file formats, font management, color theory, and quality issues.

**PGT 107 Color Photo Manipulation and Scanning 3/7/6**

(Prerequisites: PGT 128) Emphasizes the overview and the fundamentals of color photo manipulation and scanning. Topics include: safety, color theory, color scanning techniques, color correction, duotone and multitone, color separation techniques, special effects and filters, process control, and industry standards/quality control (SWOP-standard web offset practices).

**PGT 109 Color Digital Production 3/7/6**

(Prerequisites: PGT 107) Focuses on color digital production process. Topics include: first aid and safety, process color assembly, color separation production, trapping operations, color proofing operations, process color production, press proof/inspection, densitometry/ color, industry overview, and printers math.

**PGT 110 Digital Imaging Practicum/Internship 0/36/12**

(Prerequisite: PGT 109) Provides an approved industry like setting where the student develops and sharpens skills. Emphasis is placed on production standards achievement and quality control. Topics include one or more of the following: process black and white and color assembly, black and white and color separation production, digital manipulation, and industry production techniques.

**PGT 111 Basic Press Operations I 6/4/8**

(Prerequisite: PGT 115) Introduces students to the basics of press operations. Topics include: safety, plate making, press operations, paper handling, chemistry, printing methods, press and bindery equipment, ink technology, and control devices.

**PGT 115 Image Output and Preflight 3/7/6**

(Prerequisites: PGT 102, PGT 128) Introduces the students to the study of image output and assembly. Topics include: safety, basic film assembly, film processing/chemistry, basic multicolor assembly, outputting files, film composition and contacting, proofing and plate making, registration methods, and output control (Preflighting), imposition, trapping, color proofing and calibration/quality control.

**PGT 128 Black and White Photo Manipulation and Scanning 3/7/6**

(Prerequisite: Program admission) Focuses on the overview and fundamentals of black and white photo manipulation and scanning. Topics include: safety, scanning operations, resolution, sizing/scaling, file formats, photo manipulation software, halftone gray scale theory, gray scale, and quality control and calibration, OCR software, file conversion, digital input, digital manipulation, digital output, multitasking, industry production techniques and industry standards/quality control.

**PHL 103 Introduction to Venipuncture 3/2/4**

(Prerequisite: AHS 1011; Corequisite: AHS 109) Provides an introduction to blood collecting techniques and processing specimens. Emphasis is placed on the knowledge and skills needed to collect all types of blood samples from hospitalized patients. Topics include: venipuncture procedure and safety; isolation techniques, venipuncture problems, and definitions; lab test profiles, other specimen collections, and patient care areas; test combinations and skin punctures; specimen processing and CPR; professional ethics and malpractice; and certification and licensure.

**PHL 105 Clinical Practice 0/24/8**

(Prerequisites: AHS 1011, AHS 109, PHL 103) Provides work experience in a clinical setting. Emphasis is placed on enhancing skills in venipuncture techniques. Topics include: introduction to hospital policies, procedures, and work ethics; routine collections: adult, pediatric, and newborn; and special procedures.

**PHR 1000 Pharmaceutical Calculations 4/2/5**

(Prerequisite: MAT 1012 or MAT 1111) This course develops knowledge and skills in pharmaceutical calculations procedures. Topics include: systems of measurement, medication dispensing calculations, pharmacy mathematical procedures, and calculation tools and techniques.

**PHR 1010 Pharmacy Technology Fundamentals 4/2/5**

(Prerequisite: Program admission) Provides an overview of the pharmacy technology field and develops the fundamental concepts and principles necessary for successful participation in the pharmacy field. Topics include: safety, orientation to the pharmacy technology field, cardiopulmonary resuscitation (CPR), ethics and laws, definitions and terms, and reference sources.

**PHR 1020 Principles of Dispensing Medications 4/4/6**

(Prerequisite: PHR 1000; Corequisite: PHR 1050) This course introduces the student to principles of receiving, storing, and dispensing medications. Topics include: purchasing, packaging, and labeling drugs; pharmacy policies and procedures; documentation; inventory and filing systems; compounding; storage and control; pharmacy equipment; and health care organizational structure. This course provides laboratory and clinical practice.

**PHR 1030 Principles of Sterile Medication Preparation 4/4/6**

(Prerequisite: PHR 1010; Corequisite: PHR 1050) Continues the development of student knowledge and skills in preparing medication, processing glassware, and maintaining an aseptic environment. Topics include: aseptic and sterile techniques, parenteral admixtures, hyperalimentation, chemotherapy, filtering, disinfecting, contamination, ophthalmic preparations, infection control, and quality control.

**PHR 1040 Pharmacology 5/0/5**

(Prerequisite: PHR 1010; Corequisite: PHR 1015, PHR 1030) The course introduces the students to principles and knowledge about all classifications of medication. Topics include: disease states and treatment modalities, pharmaceutical side effects and drug interactions, control substances, specific drugs, and drug addiction and abuse.

**PHR 1050 Pharmacy Technology Practicum 0/21/7**

(Prerequisite: PHR 1010, PHR 1020; Corequisite: PHR 1030) Orients students to the clinical environment and provides experiences with the basic skills necessary for the pharmacy technician. Topics include: aseptic and sterile techniques, storage and control, documentation, inventory, filing, compounding, parenteral admixtures, filtering, disinfection, medication delivery, and hospital pharmacy techniques.

**PHR 2060 Advanced Pharmacy Technology Principles 4/2/5**

(Prerequisite: PHR 1030, PHR 1050, SCT 100; Corequisite: PHR 2070) This course presents the advanced concepts and principles needed in the pharmacy technology field. Topics include: physician orders, patient profiles, pharmacy data systems, job readiness, legal requirements, and pharmaceutical calculations review.

**PHR 2070 Advanced Pharmacy Technology Practicum 0/21/7**

(Prerequisite: PHR 1030, PHR 1050, SCT 100; Corequisite: PHR 2060) Continues the development of student knowledge and skills applicable to pharmacy technology practice. Topics include: dispensing responsibilities, physician orders, controlled substances, hyperalimentation, chemotherapy, patient profiles, pharmacy data systems, ophthalmic preparations, and hospital/retail/home health pharmacy techniques.

**PHY 1110 Introductory Physics 4/3/5**

(Prerequisite: MAT 1101 or MAT 1111 with a grade of C or better) Introduces students to the basic laws of physics. Topics include: Newtonian mechanics, fluids, heat, light and optics, sound, electricity and magnetism, and modern physics.

**PHY 1111 Mechanics 4/3/5**

(Prerequisite: MAT 1111; Corequisite: MAT 1112) Introduces the classical theories of mechanics. Topics include: measurements and systems of units; Newton's laws; work, energy, and power; impulse and momentum; one- and two- dimensional motion; and mechanical equilibrium. Laboratory exercises supplement class work. Computer use is an integral part of class and laboratory assignments.

**PLB 100 Introduction to Construction and the Pipe Trades 2/0/2**

(Prerequisites: Provisional admission)

This course provides an introduction to the construction trades, the skills required to succeed in construction, tools, and job site safety. This course also provides certification in CPR and First Aid. Topics include: introduction to the construction trades; ethics, communication, and attitudes; use and care of hand and power tools; job site safety; and CPR and first aid.

**PLB 107 Physical Science and Mechanics for the Pipe 5/0/5**

(Prerequisites: Provisional admission) Explores the science of materials and the mechanics related to the pipe trades. Topics include: properties and characteristics of water; hydraulics and pneumatics; mechanics; metals, alloys, and synthetics; corrosion; and basic electrical theory.

**PLB 116 Plumbing Drawing I 3/0/3**

(Prerequisites: Provisional admission) Introduces the reading and interpretation of residential plumbing prints and architectural drawings. Topics include: types of plans, scales, specifications, convention, and schedules.

**PLB 117 Plumbing Drawings II 2/0/2**

(Prerequisites: PLB 116) Introduces the reading and interpretation of commercial prints and architectural drawings. Topics include: types of plans, scales, specifications, conventions, and schedules.

**PLB 120 Pipes, Fittings, & Valves I 1/2/2**

(Prerequisites: Provisional admission) The student is introduced to the pipes, fittings, valves, hangers and joining methods as used in the pipe trades. Topics include: pipes, fittings, valves, hangers, and joining techniques.

**PLB 122 Drainage Systems I 1/3/2**

(Prerequisites: CAR 105 or PLB 116) Provides an introduction to the treatment, design and materials used in residential drainage systems. Applicable plumbing codes are also discussed. Topics include: public and private sewage systems and treatment; materials, fittings, and valves; traps, venting, and grade; ejector and sump pumps; design, sizing, & installation of drainage systems.

**PLB 124 Water Supply Systems I 1/3/2**

(Prerequisites: CAR 105 or PLB 116) Provides an introduction to the sources, treatment, design, and materials used in residential cold and hot water distribution systems. Applicable plumbing codes are also discussed. Topics include: public and private water systems; materials and fittings; valves; water treatment; water mains and services; hot water supply; design and installation of water supply systems.

**PLB 126 Plumbing Fixtures and Appliances I 1/3/2**

(Prerequisites: Provisional admission) Introduces the identification, theory, application and installation of residential plumbing fixtures, trim and appliances. Topics include: types of fixtures and appliances, fixture controls, and installation procedures.

**PLB 128 Gas Piping, Venting & Appliances I: 4/2/3**

(Prerequisites: CAR 105 or PLB 116) Provides instruction in the materials and design of residential gas supply systems and the installation of residential gas appliances. Emphasis is placed in conformance with applicable gas codes. Topics include: types of gas, safety, materials and fittings, valves, design and size gas systems, gas appliances and controls, and gas venting.

**PLB 130 Pipes, Fittings, and Values II 3/2/2**

(Prerequisites: PLB 120) The student is introduced to the pipes, fittings, valves, hangers and joining methods used in commercial plumbing and pipe fitting. Topics include: pipes, fittings, and valves; hangers and supports; and joining techniques.

**PLB 132 Drainage Systems II 4/2/3**

(Prerequisites: PLB 122) Provides instruction in the treatment, design and materials used in commercial drainage systems. Applicable plumbing codes are also discussed. Topics include: public and private sewage systems and treatment; materials, fittings, and valves; traps, venting, and grade; ejector and sump pumps; and design and sizing drainage systems.

**PLB 134 Water Supply Systems II 4/2/3**

(Prerequisites: PLB 124) Provides an introduction to the sources, treatment, design, and materials used in commercial cold and hot water distribution systems. Applicable plumbing codes are also discussed. Topics include: public and private water systems; materials, fittings, valves and meters; water treatment; hot water supply; pumps; design and sizing water supply systems.

**PLB 136 Plumbing Fixtures, and Appliances II 4/2/3**

(Prerequisites: PLB 126) Provides instruction in the identification, theory, application and installation of commercial plumbing fixtures, trim and appliances. Topics include: types of fixtures and appliances, fixture controls, installation procedures, and the American Disabilities Act (ADA) compliance.

**PLB 138 Gas Piping, Venting, and Appliances II 3/2/2**

(Prerequisites: PLB 128) Provides instruction in the materials and design of commercial gas supply systems and the installation of commercial gas appliances. Emphasis is placed on conformance with applicable gas codes. Topics include: types of gas, safety, materials and fittings, valves, design and size gas systems, gas appliances and controls, and gas venting.

**PLB 140 Pipe Offsets and Measurements 1/0/1**

(Prerequisites: Provisional admission) Provides a trade related course in problem solving using formulas and tables to calculate pipe measurements. Topics include: review of basic math skills, problem solving skills, pipe measurement and fitting take-off, piping offsets, and piping formulas.

**PLB 142 Special Plumbing Systems 5/0/5**

(Prerequisites: Provisional admission 5 credit hours, or instructor approval) Provides information and instruction in the design, use of materials, and purpose of special plumbing systems. Applicable plumbing codes are also discussed. Topics may include types of vent systems, water treatment, waste water treatment, corrosive waste piping, interceptors, storm drain systems, gray water systems, irrigation systems, fire sprinkler systems, compressed air systems, mobile home parks, hydronics, boilers, site visits, and piping systems to accommodate local needs and requirements.

**PLB 144 Plumbing Service 6/2/6**

(Prerequisites: Provisional admission 5 credit hours, or instructor approval) Provides instruction in the repair and maintenance of plumbing fixtures, appliances, and systems. There is an emphasis on analysis, problem solving, and planning in performing service work. Bidding, invoicing, and working with the customer are also included. Requirements include 20 hours of demonstration lab or 30 hours of occupation based instruction (OBI) on the job. Topics include: plumbing fixtures and controls, appliances, servicing drain systems, servicing water systems, servicing gas systems, planning service work, bidding and invoicing, and customer relations.

**PLB 146 Plumbing Codes 5/0/5**

(Prerequisites: Provisional admission 5 credit hours, or instructor approval) Provides an introduction to model, international, and local plumbing codes. Topics include: history, purpose, and construction of codes; model and international codes; local codes and amendments; and code applications.

**PLB 148 Plumbing Internship 36/0/12**

(Prerequisites: PLB 100, PLB 120) Provides students with the opportunity to apply basic plumbing principles through engagement in live work activities. Students are acquainted with occupational responsibilities by exposure to workplace problem-solving situations. Students can be placed in an occupational-based instruction (OBI) internship, assigned to a live-work practicum at the technical institution, or exposed to a combination of both types of learning experiences. The OBI internship is implemented through use of individualized training plans and written performance evaluation of on-the-job training activities. Topics include, but may not be limited to: problem-solving, adaptability to the job setting, use of interpersonal skills, interpretation of work orders, professional development, and application of basic plumbing skills and techniques.

**PLB 150 Backflow Prevention and Cross-Connection Control Certification 5/0/5**

(Prerequisites: Provisional admission 5 credit hours, or instructor approval) Provides guidelines for acceptable practice for testing, inspection, and repair of backflow prevention assemblies used in cross-connection control installations. Requires passing the exam from an approved backflow tester agency. Topics include: public health, laws and regulations, principles of backflow, backpressure, back siphonage, test procedures, and surveys.



**PLB 152 Advanced Plumbing Code Applications 5/0/5**

(Prerequisites: PLB 146) This second course on plumbing codes provides an in depth study of the plumbing codes and amendments used in Georgia. Emphasis is placed on code applications. Topics include: code definitions, regulations, tables and sizing charts, drawings, applications, and current Georgia amendments.

**PLB 154 Medical Gas Certification 5/0/5**

(Prerequisites: Georgia State Plumbing License (Journeyman or 5 credit hours, Master) Provides instruction in the installation, repair, inspection and certification of medical gas systems. Topics include: review of the current edition of the National Fire Protection Association (NFPA) codes, medical gas systems, brazing, installing, and testing.

**PLB 158 Advanced Drawing and Plan Reading 5/0/5**

(Prerequisites: CAR 105 or PLB 117) Advanced instruction in reading and interpreting various plans used in the construction industry. Topics include: specifications, site plans, architectural plans, structural plans, plumbing plans, electrical plans, mechanical plans, material take-off and bill of materials, isometric drawing and sleeve drawings.

**PLGL 1101 Introduction to Law and Ethics 5/0/5**

(Prerequisite: Provisional admission) Emphasizes the American legal system, the role of the lawyer and legal assistant within that system, and the ethical obligations imposed upon attorneys and legal assistants. Topics include: survey of American jurisprudence, code of professional responsibility and ethics overview, legal reasoning and problem solving, and introduction to sources of law and legal vocabulary.

**PLGL 1102 Legal Research 5/0/5**

(Prerequisite: Program admission level verbal achievement, provisional admission level math achievement, PLS 101) Introduces the student to the competencies involved with legal bibliography and research methodology so that the student can effectively research issues of both state and federal law. The student will also learn to properly cite legal research sources. Topics include: identification of legal issues, sources of state and federal statutes and case law, citation of legal authorities, and computer assisted legal research.

**PLGL 1103 Legal Writing 5/0/5**

(Prerequisite: Program admission, ENG 1101, PLGL 1101, PLGL 1102) Focuses on the application and reinforcement of basic writing skills, familiarizes the student with types of writing typically engaged in by lawyers and legal assistants, and prepares the student for legal writing tasks. The student teams to write business letters as well as advisory documents. Topics include: legal analysis and legal correspondence and composition.

**PLGL 1104 Family Law 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to the issues which may arise in family law cases and to the role of the paralegal in assisting the attorney in the development and presentation of such cases. Topics include: issues associated with client and witness interviews, marriage validity and dissolution, litigation support in family law matters, issues concerning children, special matters in family law, and attorney and paralegal ethical obligations.

**PLGL 1105 Real Estate Law 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to the basic concepts of real property law as they pertain to common types of real estate transactions. Additionally, emphasis will be placed on practical skills such as document preparation and title examination. Topics include: real estate contracts, plat reading and legal description, types and purposes of deeds, title searches, common real estate mortgages and documentation, real estate closing and closing statements, recordation statutes and requirements, and elements of the lease.

**PLGL 1108 Criminal Law and Criminal Procedure 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to the basic concepts of substantive criminal law and its procedural aspects with an emphasis on the constitutionally protected rights of the accused in the criminal justice system. Topics include: substantive criminal law, criminal procedure from arrest to post-conviction, constitutional issues of criminal law and procedure, and criminal litigation support.

**PLGL 1109 Civil Litigation 5/0/5**

(Prerequisite: Program admission, PLGL 1101) Emphasizes competencies and concepts of civil litigation in both federal and state courts. Topics include: federal and state litigation; documents, exhibits, investigations, and interviews.

**PLGL 1110 Wills, Trusts, Probates, and Administration 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Provides a general framework of the substantive theory of wills, trusts, and estates. The student receives practical information to better enable him or her to assist in the drafting of wills and other documents, and in the probate and administration process. Topics include: wills, trusts, and powers of attorney; probate of wills and administration of estates; document preparation for other probate proceedings; general jurisdiction of the probate court; terminology of wills and estate practice; client interviews; and document preparation.

**PLGL 1111 Tort Law 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to the basic concepts of substantive tort law. Additionally, emphasis will be placed on the fact investigation process. Topics include: concepts of tort, intentional and unintentional; causation and liability concepts; damages and defenses; and business torts.

**PLGL 1112 Law Office Management 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to common forms of law practice. The student will be exposed to methods of billing and time-keeping, automation in the law office, the law office library, the appropriate role of support staff in the law office, and ethical concerns relevant to law office management. Topics include: forms of law practice and insurance needs, support systems, support staff, and ethical responsibilities.

**PLGL 1115 Business Organizations 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Emphasizes the formulation and operation of sole proprietorships, general partnerships, limited partnerships, joint ventures, and corporations. Additionally, the course will include the exploration of basic concepts of agency law. Topics include: sole proprietorships, partnerships and joint ventures, corporations, tax implications of different organizations, professional associations and corporations, and agency concepts.

**PLGL 1116 Contracts and Commercial Law 5/0/5**

(Prerequisite: Program admission; Corequisite: PLGL 1101) Introduces the student to the basic concepts of legal rules commonly applicable in commercial settings and to the basic concepts of substantive contract law. Topics include: Constitutional Law and government regulations, Uniform Commercial Code, essential elements of a contract and related legal principles, and standard forms utilization.

**PLGL 1202 Bankruptcy/Debtor-Creditor Relations 5/0/5**

(Prerequisite: All previous program coursework) This course is designed for the student to learn about the documents filed in bankruptcy court by attorneys representing debtors and creditors in Chapter 7, 11, and 13 cases. In addition, the course will discuss collection remedies on judgment obtained in civil court by secured and unsecured creditors.

**PLGL 1204 Health Care Law 5/0/5**

(Prerequisite: All previous program coursework) This course is designed to teach students about the legal issues involved in the health care industry. The student will review contracts prepared by paralegals and attorneys for hospitals, doctors, and Health Management Organizations.

**PLGL 1222 Preparation for the Legal Profession 5/0/5**

(Prerequisite: All previous program coursework) This course is a review of legal subject matter covered in all previous courses. There are additional topics covering investigation, domestic abuse, modification of order of divorce and the legal office environment. The comprehensive final exam helps students prepare for other qualifying exams or job application tests they may take. Employment skills, including resume building and job search activities are presented.

**PLGL 2205 Advanced Research and Writing 1/13/5**

(Prerequisite: PLGL 1103; Corequisite: ENG 1112) Continues to develop writing skills focusing on legal memoranda preparation. Additionally, students develop skills in conducting legal research. Topics include: legal bibliography and research methodology, legal memoranda preparation, and substantive law research.

**PLGL 2222 Paralegal O.B.I. 0/36/12**

(Prerequisite: All previous program coursework) Focuses on the application and reinforcement of paralegal skills in an actual workplace environment, or at the discretion of the instructor, in a school practicum with simulated work experiences. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into paralegal applications on the job. Topics include: problem solving, adaptability to the job setting, use of proper interpersonal skills, application of paralegal skills in a workplace setting, and professional development.

**PSY 1010 Basic Psychology 5/0/5**

(Prerequisite: Provisional admission) Presents the basics principles of human behavior and their application to everyday life and work. Topics include: introduction to psychology; social environments; communications and group processes; personality; emotions and motives; conflicts, stress and anxiety; perception and learning; life span development; and abnormal psychology.

**PSY 1101 Introductory Psychology 5/0/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing) Emphasizes the basics of psychology. Topics include: science of psychology; social environments; life stages; physiology and behavior; personality; emotions and motives; conflicts, stress, and anxiety; abnormal behavior; and perception, learning, and intelligence.

**RAD 101 Introduction to Radiography 4/2/5**

(Prerequisite: Program admission) Provides the student with an overview of radiography and patient care. Students will be oriented to the radiographic profession as a whole. Emphasis will be placed on patient care with consideration of both physical and psychological conditions. Topics include: ethics, medical and legal considerations, "Right to Know Law," professionalism, basic principles of radiation protection, basic principles of exposure, equipment introduction, health care delivery systems, hospital and departmental organization, hospital and technical college affiliation, medical emergencies, pharmacology/contrast agents/media, OR and mobile procedures patient preparation, death and dying, and body mechanics/transportation.

**RAD 103 Body, Trunk & Upper Extremity Procedures 2/3/3**

(Prerequisites: Program admission) Introduces the knowledge required to perform radiographic procedures applicable to the human anatomy. Emphasis will be placed on the production of quality radiographs, and laboratory experience will demonstrate the application of theoretical principles and concepts. Topics include: procedures, anatomy, and topographical anatomy related to body cavities, bony thorax,

upper extremities, and the shoulder girdle; and anatomy and routine projections of the bony thorax.

**RAD 106 Lower Extremity and Spine Procedures 2/3/3**

(Prerequisites: RAD 101, RAD 103) Continues to develop the knowledge required to perform radiographic procedures. Topics include: anatomy and routine projections of the lower extremities; anatomy and routine projections of the pelvic girdle; and anatomy and routine projections of the spine.

**RAD 107 Principles of Radiographic Exposure I 3/3/4**

(Prerequisites: RAD 106, RAD 123, RAD 132) Introduces knowledge of the factors that govern and influence the production of the radiographic image on radiographic film. Laboratory experiences will demonstrate applications of theoretical principles and concepts. Topics include: radiographic density, radiographic contrast, recorded detail, distortion, exposure latitude, film holders and intensifying screens, processing considerations, chemicals, handling and storage of film, characteristics of films utilized in radiographic procedures, the automatic processor, artifacts, silver recovery, quality assurance concepts, and state and federal regulations.

**RAD 109 Contrast Procedures III 3/1/3**

(Prerequisite: RAD 106, RAD 123, RAD 132) Continues development of the knowledge and skills required prior to execution of radiographic procedures in the clinical setting. Topics include: gastrointestinal procedures, genitourinary procedures, and biliary system procedures.

**RAD 113 Cranium Procedures 2/1/2**

(Prerequisite: RAD 107, RAD 109, RAD 133) Continues developing the knowledge required to perform radiographic procedures. Topics include: anatomy and routine cranial radiography and routine facial radiography.

**RAD 116 Principles of Radiographic Procedures II 3/0/3**

(Prerequisite: RAD 107) This course continues to develop knowledge of the factors that govern and influence the production of the radiographic image on radiographic film and digital image acquisition. Topics include: beam limiting devices; beam filtration; scattered/secondary radiation; control of the remnant beam; technique formation, and exposure calculations.

**RAD 117 Radiographic Imaging Equipment 3/3/4**

(Prerequisites: RAD 116; RAD 113, RAD 134) Provides knowledge of equipment routinely utilized to produce diagnostic images. Various recording media and techniques are discussed. Topics include: radiographic equipment, image intensified fluoroscopy, recording media and techniques, image noise, other imaging equipment, digital imaging/PACS, computer literacy, monitoring and maintenance, and state and federal regulations.

**RAD 119 Radiographic Pathology and Medical Terminology 3/0/3**

(Prerequisite: RAD 120, RAD 136) Provides the student with an introduction to the concepts of disease. Pathology and disease as they relates to various radiographic procedures will be discussed. Topics include: pathology fundamentals, trauma/physical injury, systemic classifications of disease, and medical terminology principles.

**RAD 120 Principles of Radiation Biology and Protection 5/0/5**

(Prerequisites: RAD 117, RAD 135) Provides instruction on the principles of cell radiation interaction. Radiation effects on cells and factors affecting cell response are presented. Acute and chronic effects of radiation are discussed. Topics include: introduction to radiation biology, cell anatomy, radiation/cell interaction, effects of radiation, radiation detection and measurement, patient protection, personnel protection, absorbed dose equivalencies, dose limits, and agencies and regulations.

**RAD 123 Radiologic Science 5/0/5**

(Prerequisite: RAD 101, RAD 103) Introduces the concepts of basic physics and emphasizes the fundamentals of r-ray generating equipment. Topics include: atomic structure, structure of matter, magnetism and electromagnetism, electrodynamics, control of high voltage, x-ray Circuitry, x-Ray Tubes & rectifiers, production and characteristics of radiation

**RAD 126 Radiologic Technology Review 4/0/4**

(Prerequisite: RAD 119, RAD 137) Provides a review of basic knowledge from previous courses and is provided to help the student prepare for the national certification examination for radiographers. Topics include: principles of radiographic exposure, radiographic procedures, anatomy, physiology, pathology and terminology, radiologic science and equipment, radiation protection, and patient care techniques.

**RAD 132 Clinical Radiography I 0/14/4**

(Prerequisite: RAD 101, RAD 103) Introduces students to the hospital clinical setting and provides an opportunity for students to participate in or observe radiographic procedures. Emphasis is placed on clinical exposure to competencies learned in Radiographic Procedures I and II. Topics include: orientation to hospital areas and procedures, orientation to radiographic procedures, participation in and/or observation of procedures related to body cavities, shoulder girdle, upper extremities, lower extremities, pelvic girdle, spine, and bony thorax. All students are under direct supervision.

**RAD 133 Clinical Radiography II 0/21/7**

(Prerequisite: RAD 106, RAD 123, RAD 132) Continues introductory student learning experiences in the hospital setting. Emphasis is placed on those procedures discussed in Radiographic Procedures I, II, and III and practiced in previous clinical courses. Topics include: equipment utilization, exposure techniques, progress toward completion of clinical competencies through participation in and/or observation of routine projections of the upper and lower extremities, shoulder and pelvic girdles, spine and bony thorax, and skull; as well as participation in and/or observation of procedures related to gastrointestinal, genitourinary, and biliary systems. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RAD 134 Clinical Radiography III 0/21/7**

(Prerequisite: RAD 107, RAD 109, RAD 133) Provides students with continued hospital setting work experience. Students improve skills in executing procedures presented in Radiographic Procedures I, II, III, IV, and practiced in previous clinical rotations. Topics also include participation in and/or observation of cranial and facial routine radiography. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RAD 135 Clinical Radiography IV 0/21/7**

(Prerequisite: RAD 113, RAD 116, RAD 134) Continues introductory student learning experiences in the hospital setting. Emphasis is placed on those procedures discussed in Radiographic Procedures I, II, III, and IV. Topics include: equipment utilization, exposure techniques, progress toward completion of clinical competencies through participation in and/or observation of routine projections of the body and participation in and/or observation of procedures related to the GI, GU, and Biliary systems. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RAD 136 Clinical Radiography V 0/21/7**

(Prerequisite: RAD 117, RAD 135) Provides a hospital setting in which students continue to develop proficiency levels in skills introduced in Radiographic Procedures I, II, III & IV. Emphasis is placed on skill improvement through execution of special radiographic procedures and progress toward completion of clinical competencies through participation in and/or observation of routine and special radiographic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RAD 137 Clinical Radiography VI 0/28/9**

(Prerequisite: RAD 120, RAD 136) Provides a hospital setting in which students continue to develop proficiency levels in skills introduced in the Radiographic Procedures classes. Emphasis is placed on skill improvement through execution of radiographic procedures and progress toward completion of clinical competencies through participation in and/or observation of routine and special radiographic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RAD 138 Clinical Radiography VII 0/28/9**

(Prerequisite: RAD 119, RAD 137) Provides students with continued hospital setting work experience through the synthesis of information and procedural instruction provided throughout the program. Emphasis is placed on skill level improvements and final completion of all required clinical competencies through participation in and or observation of routine and special radiographic procedures. Execution of radiographic procedures will be conducted under direct and indirect supervision.

**RDG 096 Reading II 5/0/5 I.C.**

(Prerequisite: Placement by diagnostic testing) Emphasizes the strengthening of fundamental reading competencies. Topics include: vocabulary development, comprehension skills, study skills, and occupational/survival reading.

**RDG 097 Reading III 5/0/5 I.C.**

(Prerequisite: RDG 096 with a grade of C\* or better or placement by diagnostic testing) Emphasizes basic vocabulary and comprehension skills development. Topics include: vocabulary development, comprehension skills development, study skills, test taking techniques, and occupational reading.

**RDG 098 Reading IV 5/0/5 I.C.**

(Prerequisite: RDG 097 with a grade of C\* or better or placement by diagnostic testing) Provides instruction in vocabulary and comprehension skills with emphasis on occupational applications. Topics include: vocabulary development, comprehension skills development, critical reading skills, and study skills.

**RTT 111 Pharmacology 5/0/5**

(Prerequisites: BIO 2113, BIO 2114, CHM 1111, MAT 1111) Introduces the physiologic and pharmacologic basis of pulmonary and cardiac medications. Focuses on the preparation and calculation of dosages and mixtures and general principles of pharmacology. Topics include: drug preparation, dosage calculation, mixture preparation, pharmacology principles, bronchoactive drugs, and cardiopulmonary system related drugs.

**RTT 112 Introduction to Respiratory Therapy 5/0/5**

(Prerequisites: BIO 2113, BIO 2114, CHM 1111, MAT 1111, PHY 1110 or PHY 1111; Corequisites: RTT 113, RTT 193, BIO 2117) Provides students with the principles of chemistry and physics as they apply to respiratory therapy. Emphasizes specific modes of respiratory care in order to understand principles of application to patients, indications, hazards, contraindications, evaluation of therapy, and patient assessment. Topics include: respiratory therapy chemistry and physics principles, patient assessment, medical gases, humidity/aerosol therapy, positive pressure breathing, incentive spirometry, postural drainage, percussion/vibration, universal precautions, and hospital safety.

**RTT 113 Respiratory Therapy Lab I 0/10/5**

(Corequisite: RTT 112) Provides students with the opportunity to gain hands-on experience with basic respiratory therapy equipment. Students perform simulated clinical exercises as well as bedside assessments and cardiopulmonary resuscitation. Topics include: patient assessment, medical gases, humidity/aerosol therapy, positive pressure breathing, incentive spirometry, postural drainage, percussion/vibration, and medical ethics.

**RTT 193 Cardiopulmonary Anatomy and Physiology 10/0/10**  
(Prerequisites: BIO 2113, BIO 2114, MAT 1111) Provides an in-depth study of cardiac and pulmonary anatomy and physiology, and the diagnostic procedures commonly used in the hospital to evaluate these systems. Emphasizes the heart-lung relationship and clinical applications of these phenomena in the cardiopulmonary system. Topics include: respiratory function; ventilatory mechanisms; gas transport; laboratory analysis; natural and chemical regulation of breathing; circulation, blood flow and pressure, and cardiac function; and renal physiology.

**RTT 209 Clinical Practice I 0/8/2**  
(Pre/Corequisites: RTT 111, RTT 112, RTT 113) Introduces students to clinical practice in basic respiratory care procedures. Topics include: introduction to clinical affiliate, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, patient assessment, and cardiopulmonary resuscitation.

**RTT 210 Clinical Practice II 0/8/2**  
(Pre/Corequisite: RTT 209) Continues to develop skills used in the clinical practice. Topics include: medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, and patient assessment.

**RTT 211 Pulmonary Disease 5/0/5**  
(Prerequisites: RTT 111, RTT 112) Provides students with information concerning assessment of etiology, pathophysiology, treatment, and prognosis of common cardiopulmonary, cardiovascular, and pulmonary diseases and conditions. Topics include: infectious diseases and conditions, respiratory diseases and conditions, neuromuscular diseases and conditions, cardiovascular diseases and conditions, patient assessment, laboratory tests, chest radiographs, and trauma.

**RTT 212 Critical Respiratory Care 5/0/5**  
(Prerequisites: RTT 112, RTT 113) Provides students with knowledge on all phases of adult critical care and continuous mechanical ventilation. Topics include: mechanical ventilation history, adult critical care, continuous mechanical ventilation, ventilator implementation, ventilation monitoring, ventilator weaning, and ventilator discontinuance.

**RTT 213 Mechanical Ventilation Equipment and Airway Care 2/7/5**  
(Prerequisites: RTT 112, RTT 113; Pre/Corequisite: RTT 212) Provides instruction in the theory, set-up, operation, and maintenance of mechanical ventilators and equipment used to establish and maintain both adult and pediatric airways and emergency airway disorders. Topics include: ventilator operation, ventilator maintenance, emergency airway disorders, adult airway establishment and maintenance, pediatric airway establishment and maintenance, fiber optic bronchoscopy, thoracentesis, chest tube maintenance, arterial blood gas sampling, and noninvasive ventilatory support.

**RTT 214 Advanced Critical Care Monitoring 2/0/2**  
(Prerequisites: RTT 112, RTT 113, RTT 193) Provides a study of advanced critical care techniques for hemodynamic and noninvasive monitoring. Topics include: arterial pressure monitoring, central venous catheters, pulmonary artery catheters, cardiac output measurement, and noninvasive monitoring techniques.

**RTT 215 Pulmonary Function Testing 1/1/1**  
(Prerequisite: RTT 193) Provides knowledge regarding normal and abnormal pulmonary functions. Emphasizes performance, interpretation, and evaluation of various pulmonary function studies. Topics include: pulmonary function testing, pulmonary function interpretation, pulmonary function evaluation, blood gas analysis, and Polysomnography.

**RTT 216 Pediatric and Neonatal Respiratory Care 3/0/3**  
(Prerequisites: RTT 193, RTT 212, RTT 213) Provides concepts on the processes of growth and development related to respiratory care from the fetus to the adolescent. Relates physiologic function to respiratory care assessment. Topics include: fetal growth and development, neonatal growth and development, fetal assessment, neonatal assessment, neonatal respiratory care, neonatal pathology, pediatric pathology, adolescent assessment, and adolescent respiratory care.

**RTT 217 Advanced Respiratory Care Seminar 5/0/5**  
(Prerequisites: RTT 212, RTT 213). Review of respiratory therapy as it pertains to the national credential examinations administered by the NBRC. Emphasizes decision making and problem solving as they relate to clinical respiratory care. Topics include: medical ethics, basic computer literacy, CRTT exam preparation, and RRT exam preparation.

**RTT 218 Clinical Practice III 0/8/2**  
(Pre/Corequisite: RTT 210) Continues development of proficiency levels in skills introduced in Clinical Practices I and II. In addition, intermittent positive pressure breathing, chest physiotherapy, and airway care are introduced. Case presentations are required to integrate clinical and classroom theory. Topics include: intermittent positive pressure breathing, chest physiotherapy, airway care, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, and patient assessment.

**RTT 219 Clinical Practice IV 0/8/2**  
(Pre/Corequisite: RTT 218) Continues development of proficiency levels in skills introduced in Clinical Practices I, II, and III. In addition, the student is introduced to critical respiratory care. Case presentations are required to integrate clinical and classroom theory. Topics include: intermittent positive pressure breathing, chest physiotherapy, airway care, medical gas therapy, oxygen therapy, aerosol therapy, incentive spirometry, patient assessment, and respiratory care of the critical care patient.

**RTT 220 Clinical Practice V 0/16/5**  
(Pre/Corequisites: RTT 212, RTT 213, RTT 218) Continues development of skills required in the intensive care of the respiratory patient. Case presentations are required to integrate clinical and classroom theory. Topics include: basic respiratory care of critical care patients, airway management, ventilator monitoring, arterial blood collection, blood gas analysis, and EKG.

**RTT 222 Clinical Practice VI 0/32/10**  
(Prerequisite: RTT 219) Provides students with an opportunity for in-depth application and reinforcement of adult intensive care. In addition, students are provided an opportunity for application and reinforcement of pediatric and neonatal intensive care, advanced diagnostics, and rehabilitation/home care. Topics include: mechanical ventilation initiation, patient stabilization, critical care monitoring, hemodynamic measurement, hemodynamic evaluation, bronchial hygiene, weaning mechanics, extubation, arterial line sampling, advanced diagnostics, pediatric/ neonatal respiratory care, and rehabilitation/home care.

**RTT 227 Rehabilitation and Home Care 1/1/1**  
(Pre/Corequisite: RTT 112) Provides an overview of the concepts, procedures, and equipment used in rehabilitation and in the delivery of long-term care to persons with chronic pulmonary disorders. Topics include: cardiopulmonary rehabilitation/home care concepts, cardiopulmonary rehabilitation/ home care procedures, and cardiopulmonary rehabilitation/home care equipment.

**RTT 301 Introduction to Polysomnography 4/0/4**

An overview of the field of Polysomnography including: job responsibilities, credentialing, medical ethics and patient confidentiality. Normal and abnormal sleep disorders, interpreting the physiologic functions of the nervous, respiratory and cardiovascular systems. Emphasis is on basic sleep science, physiology, monitoring, electrical safety, diagnosis and treatment of sleep disorders, and neurophysiology of sleep.

**RTT 302 Polysomnography I 4/2/5**

(Corequisite: RTT 310) Basic discussion of recording sleep apnea montage. Emphasis on equipment, principles of operation, associated activity related to normal and abnormal stages of sleep, placement and calibration of the following: electroencephalography (EEG), electroculography (EOG), electrocardiography (ECG), electromyography (EMG), pulse oximetry (SpO<sub>2</sub>), inductive plethysmography and airflow thermocouple electrodes.

**RTT 303 Polysomnography II 3/4/5**

(Prerequisites: RTT 301, RTT 302, RTT 310; Corequisite: RTT 311) Presentation and discussion of psychomotor practices related to interpretation of polysomnograms of adult and pediatric clients. Emphasis on CPAP/BiPAP titration, artifact recognition and troubleshooting of sleep monitor results, maintenance of Polysomnography equipment and ancillary equipment. Includes digital data acquisition and parasomnias.

**RTT 310 Clinical Practice I 0/8/2**

(Corequisites: RTT 301, RTT 302) Introduces students to the clinical setting in a sleep laboratory or a sleep center. Consists of departmental orientation, policies and procedures, individual body mechanics and client transfers. Emphasis is on monitoring and working with polysomnographic equipment and monitoring sleep study clients, monitoring EEG, ECG, EOG, EMG, and SpO<sub>2</sub>, inductive plethysmography and airflow thermocouple electrodes and equipment.

**RTT 311 Clinical Practice II 0/8/2**

(Prerequisites: RTT 301, RTT 302, RTT 310; Corequisite: RTT 303) Provides student with clinical practice related to scoring and interpreting polysomnograms of adult and pediatric clients. Emphasis on CPAP/BiPAP titration, artifact recognition and troubleshooting of sleep montage results, maintenance of Polysomnography equipment and ancillary equipment.

**SCT 100 Introduction to Microcomputers 1/4/3**

(Prerequisite: Provisional admission) Introduces the fundamental concepts and operations necessary to use microcomputers. Emphasis is placed on basic functions and familiarity with computer use. Topics include: computer terminology, introduction to the Windows environment, introduction to networking, introduction to word processing, introduction to spreadsheets, and introduction to databases.

**SOC 1101 Introduction to Sociology 5/0/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing) Explores the sociological analysis of society, its culture, and structure. Sociology is presented as a science with emphasis placed on its methodology and theoretical foundations. Topics include: basic sociological concepts, socialization, social interaction and culture, social groups and institutions, deviance and social control, social stratification, and social change.

**SPC 1101 Public Speaking 5/0/5**

(Prerequisite: ASSET score of 41 Reading and 42 Writing or COMPASS score of 79 Reading and 62 Writing) Introduces the fundamentals of oral communication. Topics include: selection and organization of materials, preparation and delivery of individual and group presentations, and analysis of ideas presented by others.

**SUR 101 Introduction to Surgical Technology 5/2/6**

(Prerequisites: Program admission; Corequisite: SUR 109) Provides an overview of the surgical technology profession and develops the fundamental concepts and principles necessary to successfully participate on a surgical team. Topics include: orientation to surgical technology, asepsis and the surgical environment, basic instrumentation and equipment, principles of the sterilization process, and application of sterilization principles.

**SUR 102 Principles of Surgical Technology 4/3/5**

(Prerequisites: SUR 101, SUR 108, SUR 109, and PSY 1010 (diploma), or PSY 191 (degree), BIO 197 (degree)) Provides continued study of surgical team participation by introducing wound management and technological sciences for the operating room. Topics include: incisions and exposure, hemostasis, wound healing, surgical dressings, catheters, and drains, tissue approximation, electricity, physics, robotics, minimal invasive surgery, and outpatient surgical procedures.

**SUR 108 Surgical Microbiology 3/0/3**

(Prerequisites: Program admission; AHS 104, AHS 109, BIO 2113, SCT 100, and ENG 1010 and MAT 1012 (diploma); or ENG 1101 and MAT 1111 (degree); Corequisites: SUR 101, and PSY 1010 (diploma), or PSY 1101 (degree) ) Introduces the fundamentals of surgical microbiology. Topics include: historical development of microbiology, cell structure and theory, microbial function, human and pathogen relationships, infectious process, bloodborne and airborne pathogens, defense microorganisms, infection control, and principles of microbial control and destruction.

**SUR 109 Surgical Patient Care 2/2/3**

(Prerequisites: Program admission: MAT 1012 or MAT 1111; PSY 1010 or PSY 1101; SCT 100, ENG 1010 or ENG 1101, ENG 1102 or HUM 1101; SOC 1101; AHS 109; AHS 104; AHS 1011 or BIO 2113 and BIO 2114; SPC 1101; Corequisites: SUR 101, SUR 108, AHS 104) Introduces a complex diversity of surgical patients. Topics include: Biophysiological diversities and needs, preoperative routine, intraoperative patient care, postoperative patient care, and health and wellness.

**SUR 110 Surgical Pharmacology 2/2/3**

(Prerequisites: SUR 101, SUR 108, SUR 109, and PSY 1010 (diploma), or PSY 1101 (degree) Corequisites: SUR 101, SUR 102, SUR 109)) Introduces the fundamentals of intraoperative pharmacology, and emphasizes concepts of anesthesia administration. Topics include: weights and measurements, drug conversions, interpretation of drug orders, legal aspects of drug administration, intraoperative pharmacologic agents, and anesthesia fundamentals.

**SUR 112 Introductory Surgical Practicum 0/21/7**

(Prerequisites: Program admission: AHS 1011, BIO 2113 and SUR 101 (taken no longer than 6 months prior to enrollment in SUR 112); Pre/Corequisite: SUR 102) Orients students to the clinical environment and provides experience with basic skills necessary to the surgical technologist. Topics include: scrubbing; gowning; gloving; and draping; assistance with patient care; processing of instruments and supplies; maintenance of a sterile field; basic instrumentation; and environmental sanitation.

**SUR 203 Surgical Procedures I 5/2/6**

(Prerequisite: SUR 102, SUR 109, SUR 110, SUR 112; Corequisite: SUR 213) Continues introduction to surgical procedures, incisions, wound closure, operative pathology, and common complications as applied to general and specialty surgery. Topics include: general surgery and special techniques, obstetrical and gynecological surgery, gastrointestinal surgery, genitourinary surgery, head and neck surgery, and plastic and reconstructive surgery.

**SUR 204 Surgical Procedure II 5/2/6**

(Prerequisite: SUR 203, SUR 213; Corequisite: SUR 214) Continues development of student knowledge and skills applicable to specialty surgery areas. Topics include: ophthalmic surgery, orthopedic surgery, thoracic surgery, vascular surgery, cardiovascular surgery, and neurosurgery.

**SUR 213 Specialty Surgical Practicum 0/24/8**

(Prerequisite: SUR 102, SUR 109, SUR 110, SUR 112, SUR 203) Continues development of surgical team participation through clinical experience. Emphasis is placed on observation/participation in routine procedures and procedures for general and specialty surgery. Topics include: participation in and/or observation of general surgery, gastrointestinal surgery, obstetrical and gynecological surgery, genitourinary surgery, head and neck surgery, and plastic and reconstructive surgery.

**SUR 214 Advanced Specialty Surgical Practicum 0/24/8**

(Pre/Corequisites: SUR 203, SUR 204, SUR 213) Provides opportunity for students to complete all required Surgical Technology procedures through active participation in surgery in the clinical setting. Topics include: primary scrub on specialty surgical procedures; participation as a surgical team conducting ophthalmic, orthopedic, thoracic, vascular, cardiovascular, and neurosurgery procedures; independent case preparation and implementation of intraoperative skills; and demonstration of employability skills

**SUR 224 Seminar in Surgical Technology 3/0/3**

(Prerequisites: SUR 203 and SUR 213; Corequisites: SUR 204 and SUR 214) Prepares students for entry into careers as surgical technologists and enables them to effectively review for the national certification examination. The Program Assessment Examination is administered prior to completion of this course. Topics include: professional credentialing, certification review, and test-taking skills.

**WLD 100 Introduction to Welding Technology 4/4/6**

(Prerequisite: Provisional admission) Provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include: industrial safety practices; hand tool and power machine operations; measurement; laboratory procedures; introduction to codes and standards; welding career potentials and certification eligibility; basic electricity and power sources; and metals characteristics, preparation, and testing procedures.

**WLD 101 Oxyfuel Cutting 2/6/4**

(Pre/Corequisite: WLD 100) Introduces fundamental principles, safety practices, equipment, and techniques necessary for metal heating and oxyfuel cutting. Topics include: metal heating and cutting principles, safety procedures, use of oxyfuel cutting torch and flame cutting apparatus, metal heating and cutting techniques, cutting with manual and automatic cutting machines, and oxyfuel pipe cutting.

**WLD 102 Oxyacetylene Welding 1/2/1**

(Pre/Corequisite: WLD 100) Introduces the fundamental theory, safety practices, equipment and techniques necessary to perform basic oxyacetylene welding operations. Topics include: welding theory; safety procedures and practices; proper use of gas cylinders, regulators, torches, tips and other oxyacetylene welding apparatus; welding without filler rods; running beads with filler rods; joint design and making butt, lap, and open butt joints; and brazing and soldering.

**WLD 103 Blueprint Reading I 1/4/3**

(Pre/Corequisite: WLD 100) Introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. Topics include: basic lines, sketches, basic views, notes and specifications, dimensions, structural shapes, isometrics, sectional views, joint design, and detail and assembly prints.

**WLD 104 Shielded Metal Arc Welding I 3/7/6**

(Pre/Corequisite: WLD 100) Introduces the fundamental theory,

safety practices, equipment, and techniques required for shielded metal arc welding (SMAW) in the flat position. Qualification tests, flat position, are used in the evaluation of student progress toward making industrial standard welds. Topics include: SMAW safety and health practices; SMAW theory; basic electrical principles; introduction to SMAW machines; equipment set up; identification and selections of low hydrogen, mild steel, and other common electrodes; joint design; selection and preparation of materials; and production of beads and joints in the flat position.

**WLD 105 Shielded Metal Arc Welding II 3/7/6**

(Prerequisite: WLD 104) Introduces the major theory, safety practices, and techniques for SMAW in the horizontal position. Qualification tests and horizontal positions are used in the evaluation of student progress toward making industrial standard welds. Topics include: SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes to produce specification welds; horizontal joints; and uses of low hydrogen, mild steel, and other common electrodes in horizontal position welding.

**WLD 106 Shielded Metal Arc Welding III 3/7/6**

(Prerequisite: WLD 104) Introduces the major theory, safety practices, and techniques for SMAW in the vertical position. Qualification tests and vertical positions are used in the evaluation of student progress toward making industrial standard welds. Topics include: SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes to produce specification welds; and uses of low hydrogen, mild steel, and other common electrodes in vertical position welding.

**WLD 107 Shielded Metal Arc Welding IV 3/7/6**

(Prerequisite: WLD 104) Introduces the major theory, safety practices, and techniques for SMAW in the overhead position. Qualification tests and overhead positions are used in the evaluation of student progress toward making industrial standard welds. Topics include: SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes to produce specification welds; and uses of low hydrogen, mild steel, and other common electrodes in overhead position welding.

**WLD 108 Blueprint Reading II 1/4/3**

(Prerequisite: WLD 103) Emphasizes welding symbols and definitions through which the engineer or designer communicates with the welder. Welding symbols are considered an integral part of blueprint reading for the welder. Topics include: weld symbols and abbreviations; basic joints for weldment fabrications; fillet welds; groove welds; back or backing and melt-through welds; plug and slot welds; surfacing welds; flash welds and upset welds; and flange, spot projection and seam welds.

**WLD 109 Gas Metal Arc Welding (GMAW/MIG) 3/7/6**

(Prerequisite: WLD 100) Provides knowledge of theory, safety practices, equipment, and techniques required for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds. Topics include: GMAW safety and health practices; GMAW theory, machines and setup; wire specifications; joint design; shielding gases; and production of GMAW beads, bead patterns, and joints in all positions.

**WLD 110 Gas Tungsten Arc Welding (GMAW/TIG) 2/5/4**

(Prerequisite: WLD 100) Provides knowledge of theory, safety practices, equipment, and techniques required for successful gas tungsten arc welding. Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standard welds. Topics include: GTAW safety and health practices; metals weldable using GTAW; GTAW theory, machines, and setup; metal cleaning procedures; selection of filler rods; shielding gases; and production of GTAW beads, bead patterns, and joints in all positions.

**WLD 112 Preparation for Industrial Qualification 2/6/4**

(Prerequisites: WLD 101, WLD 105, WLD 106, WLD 107, WLD 108, WLD 109, WLD 110) Introduces industrial qualification methods, procedures, and requirements. Students are prepared to meet the qualification criteria of selected national welding codes and standards. Topics include: qualification test methods and procedures; codes and standards; fillet and groove weld test specimens; and national industrial student preparation for qualification and job entry.

**WLD 133 Metal Welding and Cutting Techniques 2/3/3**

(Prerequisite: Provisional admission) Provides instruction in the fundamental use of the electric arc welder and the oxyacetylene cutting outfit. Emphasis is placed on safe setup and use of equipment. Topics include: safety practices; arc welding equipment and setup; oxyfuel welding; flame cutting equipment and setup; and welding and cutting procedures.

**WLD 150 Advanced Gas Tungsten Arc Welding 2/8/5**

(Prerequisite: WLD 110) Provides knowledge of theory, safety practices, equipment, and techniques required for successful gas tungsten arc welding (GTAW). Qualification tests, all positions, are used in the evaluation of student progress toward making advanced level industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW weld positions; and advanced production of GTAW beads, bead patterns, and joints in all positions.

**WLD 153 Flux Cored Arc Welding 2/8/5**

(Prerequisite: WLD 100) Provides knowledge of theory, safety practices, equipment, and techniques required for successful flux cored arc welding (FCAW). Qualification tests, all positions, are used in the evaluation of student progress toward making industrial standards welds. Topics include: FCAW safety and health practices; FCAW theory; machine setup and operation; shielded gas selection; and FCAW joints in all positions.

**WLD 154 Plasma Cutting 4/3/5**

(Prerequisites: WLD 100, WLD 101) Presents practices common in the welding and metal fabrication industry. Topics include: metal fabrication safety and health practices and metal fabrication procedures.

**WLD 156 Ornamental Iron Works 5/0/5**

(Prerequisite: WLD 100) Provides an introduction to ornamental ironworks with emphasis on safety practices, equipment and ornamental ironwork techniques. Topics include: introduction to ornamental ironworks and safety practices; use of scroll machine, and use of bar twister.

**WLD 160 Half-time Internship 0/15/5**

(Prerequisite: Completion of two full quarters with a GPA of 3.0 or better) Provides additional skills application in an industrial setting through a cooperative agreement among industry, the Welding and Joining Technology program and the student to furnish employment in a variety of welding occupations. Emphasizes student opportunities to practice welding skills in a "hand on" situation and to work in an industrial environment under the supervision of a master welding technician. Supplements and complements the course taught in the Welding and Joining Technology program. Topics include: application of welding and joining skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

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