

# Associate Degrees

West Georgia Technical College offers two-year associate degree programs: Associate of Science (AS), Associate Degree in Nursing (ADN), and Associate of Applied Science (AAS). These programs have been authorized by the Technical College System of Georgia.

## Associate Degree Testing Requirement

Students finishing associate degree programs must complete a general education competency assessment (ETS Proficiency Profile) during either the last semester or the next-to-last semester prior to graduation. The assessment includes items that measure four core skills areas: critical thinking, writing, reading, and mathematics. Unless otherwise provided for in an individual program, no minimum score or level of achievement is required for graduation. The general education assessment is administered during the fall and spring semesters on all campuses and for online programs to accommodate all graduating students.

## Associate Degree General Education Requirement

The general education core at West Georgia Technical College is based on the rationale that the successful associate degree graduate must be more than a highly trained technician. The graduate must be competent in the use of oral and written communication and have a level of mathematical proficiency that includes the ability to read and understand mathematical information, solve mathematical problems, and make decisions based on sound data. In addition, the associate degree graduate must have an understanding of the social and psychological self and a familiarity with and appreciation for humanities and the fine arts. In keeping with the College's established general education student learning outcomes, general education courses in the associate degree programs at WGTC link the student's technical skills with an ability to communicate effectively, demonstrate computational skills, think critically and creatively, be informationally literate, and exhibit ethical behavior and a respect for diversity.

Associate of Science (AS) degree programs require a **minimum of 40 credit hours of general education courses**; each AS degree notes these specific requirements. The Associate Degree Nursing (ADN) and all Associate of Applied Science (AAS) degree programs require a **minimum of 15 credit hours\*\* of general education courses** using the curriculum structure below (**all course prerequisites must be met**):

### Area I: Language Arts/Communications (minimum of 3 credit hours)

Courses that address Language Arts/Communications learning outcomes:

	<b>Program Course</b>	<b>Credits</b>
	<i>General Core Courses</i>	
_____	ENGL 1101      Composition & Rhetoric	3
_____	ENGL 1102      Literature & Composition	3
_____	SPAN 1101      Introduction to Spanish Language and Culture I	3
_____	SPAN 1102      Introduction to Spanish Language and Culture II	3
_____	SPCH 1101      Public Speaking	3

*Successful completion of ENGL 1101 is required as 3 of the minimum credit hours.*

**Area II: Social/Behavioral Sciences (minimum of 3 credit hours)**

Courses that address Social Sciences/Behavioral Sciences learning outcomes:

	<b>Program Course</b>	<b>Credits</b>
	<i>General Core Courses</i>	
_____	ECON 1101 Principles of Economics	3
_____	ECON 2105 Macroeconomics	3
_____	ECON 2106 Microeconomics	3
_____	HIST 1111 World History I	3
_____	HIST 1112 World History II	3
_____	HIST 2111 U.S. History I	3
_____	HIST 2112 U.S. History II	3
_____	POLS 1101 American Government	3
_____	POLS 2401 Global Issues	3
_____	PSYC 1101 Introductory Psychology	3
_____	SOCI 1101 Introduction to Sociology	3

**Area III: Natural Sciences/Mathematics (minimum of 3 credit hours)**

Courses that address Natural Sciences/Mathematics learning outcomes:

	<b>Program Course</b>	<b>Credits</b>
	<i>General Core Courses</i>	
_____	BIOL 1111 Biology I	3
_____	BIOL 1111L Biology I Lab	1
_____	BIOL 1112 Biology II	3
_____	BIOL 1112L Biology II Lab	1
_____	CHEM 1211 Chemistry I	3
_____	CHEM 1211L Chemistry I Lab	1
_____	CHEM 1212 Chemistry II	3
_____	CHEM 1212L Chemistry II Lab	1
_____	CHEM 1151 Survey of Inorganic Chemistry	3
_____	CHEM 1151L Survey of Inorganic Chemistry Lab	1
_____	CHEM 1152 Survey of Organic Chemistry	3
_____	CHEM 1152L Survey of Organic Chemistry Lab	1
_____	MATH 1101 Mathematical Modeling	3
_____	MATH 1103 Quantitative Skills and Reasoning	3

<i>(continued)</i>			
_____	MATH 1111	College Algebra	3
_____	MATH 1112	College Trigonometry	3
_____	MATH 1113	Precalculus	3
_____	MATH 1127	Introduction to Statistics	3
_____	MATH 1131	Calculus	4
_____	MATH 1132	Calculus II	4
_____	PHYS 1111	Introductory Physics I	3
_____	PHYS 1111L	Introductory Physics I Lab	1
_____	PHYS 1112	Introductory Physics II	3
_____	PHYS 1112L	Introductory Physics II Lab	1

*Successful completion of MATH 1101 or MATH 1111 is required as 3 of the minimum credit hours.*

#### **Area IV Humanities/Fine Arts (minimum of 3 credit hours)**

Courses that address Humanities/Fine Arts learning outcomes:

<b>Program Course</b>		<b>Credits</b>
<i>General Core Courses</i>		
_____	ARTS 1101 Art Appreciation	3
_____	ENGL 2130 American Literature	3
_____	ENGL 2110 World Literature	3
_____	ENGL 2310 English Literature from the Beginnings to 1700	3
_____	HUMN 1101 Introduction to Humanities	3
_____	MUSC 1101 Music Appreciation	3
_____	THEA 1101 Theater Appreciation	3

*\*\*To meet the minimum required 15 credit hours, the additional 3 credit hours may be selected from Areas I, II, III, or IV.*

**Some degree programs have additional requirements that students must meet in order to be considered for admission and program completion. Please consult individual program descriptions and academic advisors for further information.**

## Diploma Programs

West Georgia Technical College offers diploma programs in various occupational fields. The Technical College System of Georgia governs these programs by standards that provide uniform requirements for all technical institutes. Satisfactory completion of course work carries diploma credit. Diploma credit is transferable to other technical colleges within the statewide system.

## Certificate Programs

West Georgia Technical College offers technical certificate programs in various occupational fields. The Technical College System of Georgia governs these programs by standards that provide uniform requirements for all technical colleges. Satisfactory completion of course work carries certificate credit. Certificate credit is transferable to other technical colleges within the statewide system.

### The following designations are used for academic programs:

- AS Degree – Associate of Science Degree
- AAS Degree – Associate of Applied Science Degree
- TCC or Certificate – Technical Certificate of Credit

## Academic Programs

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# School of Business and Public Services

## Accounting

Accounting AAS Degree (AC13)  
Accounting Diploma (AC12)  
Computerized Accounting Specialist Certificate (CAY1)  
Office Accounting Specialist Certificate (OA31)  
Payroll Accounting Specialist Certificate (PA61)  
Tax Preparation Specialist Certificate (TPS1)

## Business Management

Business Management AAS Degree (MD13)  
Business Management Diploma (MD12)  
Hospitality Operations Associate TCC (HP31)  
Human Resource Management Specialist Certificate (HRMI)  
Service Sector Management Specialist Certificate (SSM1)

## Business Technology

Business Healthcare Technology Degree (BHT3)  
Business Healthcare Technology Diploma (BHT2)  
Healthcare Billing and Reimbursement Assistant Certificate (HBA1)  
Business Technology Degree (BA23)  
Business Technology Diploma (BA22)  
Administrative Support Assistant Certificate (AS21)  
Medical Billing Clerk Certificate (MB21)  
Microsoft Excel Application User Certificate (ME51)  
Microsoft Office Applications Professional Certificate (MF41)  
Microsoft Word Application Professional Certificate (MWA1)  
Technical Specialist Certificate (TC31)

## Computer Information Systems

Computer Programming AAS Degree (CP23)  
Computer Support Specialist AAS Degree (CS23)  
Networking Specialist AAS Degree (NS13)  
Computer Support Specialist Diploma (CS14)  
Networking Specialist Diploma (NS14)  
Animation and Game Design Specialist Certificate (AAG1)  
Game Development Certificate Specialist (GDS1)  
Help Desk Specialist Certificate (HD41)  
PC Repair and Network Technician Certificate (PR21)

## Cosmetology, Barbering, and Esthetician

Barber II (BI31)  
Cosmetology Diploma (CO12)  
Esthetician Certificate (CE11)  
Shampoo Technician Certificate (ST11)

## Criminal Justice

AS Degree in Criminal Justice (AJ13)  
Criminal Justice Technology AAS Degree (CJT3)  
Criminal Justice Technology Diploma (CJT2)  
Crime Scene Fundamentals Certificate (CZ31)  
Criminal Justice Fundamentals Certificate (CJ71)

## Culinary Arts

Culinary Arts AAS Degree (CA43)  
Culinary Arts Diploma (CA44)  
Baking and Pastry Specialist Certificate (BA51)  
Catering Specialist Certificate (CS61)  
Food Production Worker I Certificate (FPW1)  
Prep Cook Certificate (PC51)  
Restaurant Operations Certificate (RPS1)

## Early Childhood Care and Education

Early Childhood Care and Education AAS Degree (EC13)  
Early Childhood Care and Education Diploma (ECC2)  
Child Development Specialist Certificate (CD61)  
Early Childhood Care and Education Basics Certificate (EC31)  
Infant and Toddler Child Care Specialist Certificate (IC31)

## General Business

AS Degree in General Business (AF23)

## Marketing Management

Marketing Management AAS Degree (MM13)  
Marketing Management Diploma (MM12)  
Small Business Marketing Manager Certificate (SB41)

# Accounting

## Accounting AAS Degree (ACI3)

The Accounting associate degree program is a sequence of courses that prepares students for a variety of careers in accounting in today's technology-driven workplaces. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement.

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### Career Opportunities

*Graduates may find employment as accounting clerks, bookkeepers, junior accountants, payroll clerks, tax preparers or cost accountants. The accounting field continues to provide endless opportunities for professional employment and growth. Strong accounting skills increase a student's employment marketability and earnings potential.*

**Credit Required for Graduation: Minimum of 67 credit hours**

### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Accounting associate degree program requires an additional 3 credit hours in any area, for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours; must include ECON 1101, ECON 2105, or ECON 2106)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 6 hours from Area I, II, III, or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ ACCT 1100	Financial Accounting I	4
_____ ACCT 1105	Financial Accounting II	4
_____ ACCT 1115	Computerized Accounting	3
_____ ACCT 1125	Individual Tax Accounting	3
_____ ACCT 1130	Payroll Accounting	3

	<i>(continued)</i>		
_____	ACCT 2000	Managerial Accounting	3
_____	ACCT 2145	Personal Finance	3
_____	BUSN 1410	Spreadsheet Concepts and Applications	4
_____	BUSN 1440	Document Production	4
	*Prerequisite is BUSN 1100 or the ability to key at least 30 words per minute. See Admissions Office for testing.		
_____	COMP 1000	Introduction to Computers	3
	<i>Electives (Select 15 credits from the list below)</i>		
_____	ACCT 2110	Accounting Simulation	3
_____	ACCT 2115	Bookkeeper Certificate Review	3
_____	ACCT 2120	Business Tax	3
_____	ACCT 2140	Legal Environment of Business	3
_____	XXXX xxxx	Elective	3
_____	XXXX xxxx	Elective	3
_____	XXXX xxxx	Elective	3

## Accounting Diploma (AC12)

The Accounting diploma program prepares students for a variety of entry-level positions in accounting in today's technology-driven workplaces. Learning opportunities develop academic, technical and professional knowledge and skills required for job acquisition, retention and advancement.

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### Career Opportunities

Graduates may find employment as bookkeepers or accounting clerks in the areas of accounts receivable or accounts payable.

### Credit Required for Graduation: Minimum of 42 credit hours

#### Curriculum

Program Course		Credits
<i>Basic Skills Courses</i>		
_____ EMPL 1000	Interpersonal Relations and Professional Development	2
_____ ENGL 1010	Fundamentals of English I	3
_____ MATH 1011	Business Mathematics	3
_____ -or- _____ MATH 1012	Foundations of Mathematics	(3)
<i>Occupational Courses</i>		
_____ ACCT 1100	Financial Accounting I	4
_____ ACCT 1105	Financial Accounting II	4
_____ ACCT 1115	Computerized Accounting	3
_____ ACCT 1125	Individual Tax Accounting	3
_____ ACCT 1130	Payroll Accounting	3
_____ BUSN 1410	Spreadsheet Applications	4
_____ BUSN 1440	Document Production	4
_____ *Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing. _____ COMP 1000	Introduction to Computers	3
<i>Occupational Electives (6 credits from the list below)</i>		
_____ ACCT 2000	Managerial Accounting	3
_____ ACCT 2110	Accounting Simulation	3
_____ ACCT 2115	Bookkeeper Certification Review	3
_____ ACCT 2120	Business Tax Accounting	3
_____ ACCT 2140	Legal Environment of Business	3
_____ ACCT 2145	Personal Finance	3



# Computerized Accounting Specialist Certificate (CAYI)

The Computerized Accounting Specialist certificate program provides students with skills needed to perform a variety of accounting applications using accounting software and practical accounting procedures. Topics include principles of accounting, computerized accounting, spreadsheet fundamentals and basic computers.

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

## **Career Opportunities**

*Graduates may be employed as entry-level accounting assistants.*

**Credit Required for Completion: Minimum of 21 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ACCT 1100	Financial Accounting I	4
_____	ACCT 1105	Financial Accounting II	4
_____	ACCT 1115	Computerized Accounting	3
_____	BUSN 1410	Spreadsheet Concepts and Applications	4
_____	COMP 1000	Introduction to Computers	3
_____	ACCT xxxx	Accounting Elective	3

## Office Accounting Specialist Certificate (OA31)

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

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### **Career Opportunities**

*Graduates may be employed as entry-level accounting assistants.*

### **Credit Required for Completion: Minimum of 14 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ACCT 1100	Financial Accounting I	4
_____	ACCT 1105	Financial Accounting II	4
_____	ACCT 1115	Computerized Accounting	3
_____	COMP 1000	Introduction to Computers	3

## Payroll Accounting Specialist Certificate (PA61)

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

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### **Career Opportunities**

*Graduates may be employed as entry-level payroll and timekeeping clerks.*

**Credit required for Completion: Minimum 17 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credit</b>
	<i>Occupational Courses</i>		
_____	ACCT 1100	Financial Accounting I	4
_____	COMP 1000	Introduction to Computers	3
_____	ACCT 1105	Financial Accounting II	4
_____	ACCT 1115	Computerized Accounting	3
_____	ACCT 1130	Payroll Accounting	3

## Tax Preparation Specialist Certificate (TPSI)

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

**NOTE:** Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### **Career Opportunities**

*Graduates may be employed as entry-level tax preparers in a variety of state and local government, educational services, healthcare, and accounting services industries.*

**Credit Required for Completion: Minimum of 16 credit hours**

### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____	ACCT 1100      Financial Accounting I	4
_____	ACCT 1125      Individual Tax Accounting	3
_____	ACCT 2120      Business Tax Accounting	3
_____	ACCT xxxx      Accounting Elective	3
_____	COMP 1000      Introduction to Computers	3

# Business Management

## Business Management AAS Degree (MD13)

The Business Management associate degree program is designed to prepare students for entry into management and supervisory occupations in a variety of businesses and industries. Learning opportunities will introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement in management.

### **Career Opportunities**

*Graduates may find employment as management and/or supervisor assistants or trainees or in related occupations.*

**Credit Required for Graduation: Minimum of 64 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours using the curriculum structure outlined in the beginning of this degree program section. **The Business Management associate degree program requires an additional 3 credit hours in any area, for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 6 hours from Area I, II, III, or IV

<b>Program Course</b>	<b>Credits</b>
<i>Occupational Courses</i>	
_____ ACCT 1100      Financial Accounting I	4
_____ COMP 1000      Introduction to Computers	3
_____ MGMT 1100      Principles of Management	3
_____ MGMT 1105      Organizational Behavior	3
_____ MGMT 1110      Employment Rules and Regulations	3
_____ MGMT 1115      Leadership	3
_____ MGMT 1120      Introduction to Business	3
_____ MGMT 1125      Business Ethics	3

*(listing continued on next page)*

_____	(continued) MGMT 2115	Human Resource Management	3
_____	MGMT 2125	Performance Management	3
_____	MGMT 2215	Team Project	3

**-and-**

**Choose one of the following specializations**

*Specific Occupational Courses (General Management Specialization – 12 credits)*

*Occupational Electives (12 credits from the list below)*

_____	MGMT 2120	Labor Management Relations	3
_____	MGMT 2130	Employee Training and Development	3
_____	MGMT 2140	Retail Management	3
_____	MGMT 2145	Business Plan Development	3
_____	MGMT 2205	Service Sector Management	3
_____	MGMT 2210	Project Management	3

*Specific Occupational Courses (Hospitality Operations Associate Specialization – 12 credits)*

_____	HRMT 1100	Introduction to Hotel, Restaurant, and Tourism Management	3
_____	HRMT 1160	Food and Beverage Management	3
_____	HRMT 1201	Hospitality Marketing	3
_____	XXXxxx	Occupational Elective	3

*Specific Occupational Courses (Human Resources Management Specialization – 12 credits)*

_____	MGMT 2120	Labor Management Relations	3
_____	MGMT 2130	Employee Training and Development	3
_____	MGMT 2205	Service Sector Management	3
_____	-or-	MGMT 2210 Project Management	(3)

*Occupational Electives (3 credits from the list below)*

_____	MGMT 2140	Retail Management	3
_____	MGMT 2200	Production/Operations Management	(3)

*Additional Specialization on next page.*

<i>Specific Occupational Courses (Service Sector Management Specialization – 12 credits)</i>			
_____	MGMT 2130	Employee Training and Development	3
_____	MGMT 2140	Retail Management	3
_____	MGMT 2205	Service Sector Management	3
<i>Occupational Electives (3 credits from the list below)</i>			
_____	MGMT 2120	Labor Management Relations	3
_____	MGMT 2210	Project Management	(3)

## Business Management Diploma (MD I2)

The Business Management diploma program is designed to prepare students for entry into management positions in a variety of businesses and industries. Learning opportunities will introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement in management.

### Career Opportunities

Graduates may find employment as management and/or supervisor assistants or trainees or in related occupations.

### Credit Required for Graduation: Minimum of 48 credit hours

#### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000      Interpersonal Relations and Professional Development	2
	-or-	
_____	PSYC 1010      Basic Psychology	(3)
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1011      Business Math	3
	-or-	
_____	MATH 1012      Foundations of Mathematics	(3)
 <b>NOTE:</b> Students are encouraged to complete the core courses first—before the bulk of their program courses—instead of waiting until closer to program completion.		
<i>Occupational Courses</i>		
_____	ACCT 1100      Financial Accounting I	4
_____	COMP 1000      Introduction to Computers	3
_____	MGMT 1100      Principles of Management	3
_____	MGMT 1105      Organizational Behavior	3
_____	MGMT 1110      Employment Rules and Regulations	3
_____	MGMT 1115      Leadership	3
_____	MGMT 1120      Introduction to Business	3
_____	MGMT 1125      Business Ethics	3
_____	MGMT 2115      Human Resource Management	3
_____	MGMT 2125      Performance Management	3
_____	MGMT 2215      Team Project	3

*Occupational Electives appear on next page.*



*Occupational Electives (6 credits from the list below)*

_____	MGMT 2130	Employee Training and Development	3
_____	MGMT 2140	Retail Management	3
_____	MGMT 2210	Project Management	3

# Hospitality Operations Associate TCC (HP31)

The Hospitality Operations Associate program prepares students for employment in a variety of positions in today's Hotel/Restaurant/Tourism fields. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of Hotel/Restaurant/Tourism.

## **Career Opportunities**

*Graduates may find entry-level employment in a wide variety of operational areas of hotel, resort, restaurant, or other hospitality industries.*

## **Credit Required for Completion: Minimum of 12 credit hours (180 contact)**

### **Curriculum**

Program Course	Credits
_____ HRTM 1100    Intro to Hotel, Restaurant, & Tourism Management	3
_____ HRTM 1160    Food and Beverage Management	3
_____ HRTM 1201    Hospitality Marketing	3
<i>Occupational Electives (3 credits from the list below)</i>	
_____ XXXX xxxx    Any related course may be used to fulfill this requirement	3

# Human Resource Management Specialist Certificate (HRMI)

The Human Resource Management Specialist certificate program prepares individuals to perform human resources functions in the HR Department in most companies. Learning opportunities will introduce, develop and reinforce students' knowledge, skills and attitudes required for job acquisition, retention and advancement in management.

## Career Opportunities

Graduates may be seek entry-level employment performing human resources functions, including recruitment, hiring, and training of new employees; benefits administration; and labor relations in a variety of businesses and industries.

## Credit Required for Completion: Minimum of 18 credit hours

### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	MGMT 1105      Organizational Behavior	3
_____	MGMT 1110      Employment Rules and Regulations	3
	-or-	
_____	MGMT 2120      Labor Management Relations	(3)
	-or-	
_____	MKTG 1130      Business Regulations and Compliance	(3)
_____	MGMT 2115      Human Resource Management	3
_____	MGMT 2125      Performance Management	3
_____	MGMT 2130      Employee Training and Development	3
_____	XXXX xxxx      Occupational Elective	3

# Service Sector Management Specialist Certificate (SSMI)

The Service Sector Management Specialist certificate program prepares individuals to become supervisors in business and service related companies. Learning opportunities will introduce, develop, and reinforce students' knowledge, skills, and attitudes required for job acquisition, retention, and advancement in management.

## **Career Opportunities**

*Graduates will be better prepared to function as managers in a service sector environment.*

## **Credit Required for Completion: Minimum of 18 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	MGMT 1100	Principles of Management	3
_____	MGMT 2125	Performance Management	3
_____	MGMT 2130	Employee Training and Development	3
_____	MGMT 2140	Retail Management	3
	-or-		
_____	MGMT 2210	Project Management	(3)
_____	MGMT 2205	Service Sector Management	3

# Business Technology

## Business Healthcare Technology Degree (BHT3)

The Business Healthcare Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Healthcare 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 software and technology. Students are also introduced to accounting fundamentals, electronic communications, internet research, electronic file management, and healthcare regulation and compliance. The program includes instruction in effective communication skills and terminology that encompasses office management and executive assistant qualification 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.

**NOTE:** The Business Healthcare Technology program uses a combination of lecture and lab classes. The office tasks help students apply theory to practical situations. Job samples give students responsibility for planning, coordinating, controlling and completing activities used in offices and businesses. Many Business Healthcare Technology students have found that by selecting electives carefully, they were able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### *Career Opportunities*

*Graduates may find employment as business administrative assistants, medical administrative assistants, or related administrative support positions within a variety of healthcare facilities.*

### **Credit Required for Completion: Minimum of 70 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Business Healthcare Technology associate degree program requires an additional 3 credit hours in Area I, for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 6 hours; must include ENGL 1101 and SPCH 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ ACCT 1100	Financial Accounting I	4
_____ ALHS 1011	Structure and Function of the Human Body	5
_____ ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____ BUSN 1000	Computers in Healthcare	3
_____ -or- COMP 1000	Introduction to Computers	(3)
_____ -or- HIMT 1150	Computer Applications in Healthcare	(3)
_____ BUSN 1015	Introduction to Healthcare Reimbursement	3
_____ BUSN 1440	Document Production	4
	*Prerequisite is BUSN 1100 or the ability to key at least 30 words per minute. See Admissions Office for testing.	
_____ BUSN 2190	Business Document Proofreading and Editing	3
_____ BUSN 2340	Medical Administrative Procedures	4
_____ BUSN 2350	Electronic Health Records	3
_____ -or- HIMT 1250	Health Record Content and Structure	(3)
_____ BUSN 2370	Healthcare Coding	3
_____ MAST 1120	Human Diseases	3

**-and-**

**Choose one of the following specializations**

<i>Specific Occupational Courses (<b>Practice Management Specialization – 15 credits</b>)</i>		
_____ BUSN 2440	Healthcare Leadership and Professional Effectiveness	3
_____ BUSN 2800	Practice Management Fundamentals	3
_____ BUSN 2810	Healthcare Compliance	3
_____ BUSN 2820	Healthcare Practice Law and Ethics	3
_____ BUSN 2830	Healthcare Delivery Systems	3
<i>Specific Occupational Courses (<b>Compliance and Reimbursement Specialization – 15 credits</b>)</i>		
_____ BUSN 2400	Healthcare Procedural Coding	3
_____ BUSN 2410	ICD Coding	3
_____ BUSN 2420	Advanced Medical Coding	3
_____ BUSN 2810	Healthcare Compliance	3
_____ BUSN 2850	Healthcare Record Auditing	3

*Specific Occupational Courses (**Health Informatics Specialization – 15 credits**)*  
*Occupational Electives (15 credits from the list below)*

_____	BUSN 2700	Introduction to Health Informatics	3
_____	BUSN 2720	Healthcare Information Systems	3
_____	BUSN 2750	Healthcare Technology Regulations	3
_____	CIST 1001	Computer Concepts	4
_____	CIST 1401	Computer Networking Fundamentals	4

*Specific Occupational Courses (**Business Healthcare Specialization – 15 credits**)*

_____	BUSN xxxx	Any BUSN credit course may be used to satisfy this elective requirement.	
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## Business Healthcare Technology Diploma (BHT2)

The Business Healthcare Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Healthcare 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 software and technology. Students are also introduced to accounting fundamentals, electronic communications, internet research, electronic file management, and healthcare regulation and compliance. The program includes instruction in effective communication skills and terminology that encompasses office management and executive assistant qualification 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.

**NOTE:** The Business Healthcare Technology program uses a combination of lecture and lab classes. The office tasks help students apply theory to practical situations. Job samples give students responsibility for planning, coordinating, controlling and completing activities used in offices and businesses. Many Business Healthcare Technology students have found that by selecting electives carefully, they were able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment as business administrative assistants, medical administrative assistants, or related administrative support positions within a variety of healthcare facilities.

### Credit Required for Graduation: Minimum of 48 credit hours

#### Curriculum

	Program Course	Credits
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
	-or-	
_____	PSYC 1010 Basic Psychology	(3)
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1011 Business Math	3
	-or-	
_____	MATH 1012 Foundations of Mathematics	(3)
	<i>Occupational Courses</i>	
_____	ACCT 1100 Financial Accounting I	4
_____	ALHS 1011 Structure and Function of the Human Body	5
_____	ALHS 1090 Medical Terminology for Allied Health Sciences	2

Continued on next page.



_____	BUSN 1000	Computers in Healthcare	3
	-or-		
_____	COMP 1000	Introduction to Computers	(3)
	-or-		
_____	HIMT 1150	Computer Applications in Healthcare	(3)
_____	BUSN 1015	Introduction to Healthcare Reimbursement	3
_____	BUSN 1440	Document Production	4
	*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.		
_____	BUSN 2190	Business Document Proofreading and Editing	3
_____	BUSN 2340	Medical Administrative Procedures	4
_____	BUSN 2350	Electronic Health Records	3
	-or-		
_____	HIMT 1250	Health Record Content and Structure	(3)
_____	BUSN 2370	Healthcare Coding	3
_____	MAST 1120	Human Diseases	3
	<i>Occupational Electives (7 credits)</i>		
_____	BUSN xxxx	Any BUSN credit course may be used to satisfy this elective requirement.	

## Healthcare Billing and Reimbursement Assistant Certificate (HBAI)

The Healthcare Billing and Reimbursement Assistant certificate program provides instruction in medical facility reimbursement and compliance regulations.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment as insurance billing assistants/clerks, front office assistants, or related administrative support positions within a variety of healthcare facilities.*

### **Credit Required for Completion: Minimum of 22 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	ALHS 1011     Structure and Function of the Human Body	5
_____	ALHS 1090     Medical Terminology for Allied Health Sciences	2
_____	BUSN 1000     Computers in Healthcare	3
	-or-	
_____	COMP 1000     Introduction to Computers	(3)
	-or-	
_____	HIMT 1150     Computer Applications in Healthcare	(3)
_____	BUSN 1015     Introduction to Healthcare Reimbursement	3
_____	BUSN 2350     Electronic Health Records	3
_____	BUSN 2370     Healthcare Coding	3
_____	MAST 1120     Human Diseases	3

## Business Technology Degree (BA23)

The Business Technology associate degree program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Technology 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 emphasizes the use of word processing, spreadsheet, and presentation 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 terminology that encompasses office management and executive assistant qualification and technology innovations for the office. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of business technology.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they were able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only in the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment opportunities as an executive administrative assistant, executive secretary or in a related field.*

### **Credit Required for Graduation: Minimum of 67 credit hours**

#### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Business Technology associate degree program requires an additional 3 credit hours in Area I, for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 6 hours; must include ENGL 1101 and SPCH 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____	ACCT 1100      Financial Accounting I	4
_____	BUSN 1190      Digital Technologies in Business	2
_____	BUSN 1240      Office Procedures	3
_____	BUSN 1300      Introduction to Business	3
_____	BUSN 1400      Word Processing Applications	4
_____	BUSN 1410      Spreadsheet Concepts and Applications	4
_____	BUSN 1420      Database Applications	4
_____	BUSN 1430      Desktop Publishing and Presentation Applications	4
_____	BUSN 1440      Document Production	4
	*Prerequisite is BUSN 1100 or the ability to key at least 30 words per minute. See Admissions Office for testing.	
_____	BUSN 2160      Electronic Mail Applications	2
_____	BUSN 2190      Business Document Proofreading and Editing	3
_____	BUSN 2210      Applied Office Procedures	3
_____	MGMT 1100      Principles of Management	3
_____	COMP 1000      Introduction to Computers	3
<i>Occupational Electives (3 credits)</i>		
_____	BUSN xxxx      Any BUSN credit course may be used to satisfy this elective requirement.	

## Business Technology Diploma (BA22)

The Business Technology diploma program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The Business Technology 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 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 that encompasses office management and executive assistant qualification and technology innovations for the office. Also provided are opportunities to upgrade present knowledge and skills or to retrain in the area of business technology.

**NOTE:** The Business Technology program uses a combination of lecture and lab classes. The office tasks help students apply theory to practical situations. Job samples give students responsibility for planning, coordinating, controlling and completing activities used in offices and businesses. Many Business Technology students have found that by selecting electives carefully, they were able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment as business administrative assistants, medical administrative assistants, or in a related field.

### Credit Required for Graduation: Minimum of 50 credit hours

#### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1011 Business Math	3
	-or-	
_____	MATH 1012 Foundations of Mathematics	(3)
<i>Occupational Courses</i>		
_____	ACCT 1100 Financial Accounting I	4
_____	BUSN 1400 Word Processing Applications	4
_____	BUSN 1440 Document Production	4
	*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.	
_____	BUSN 2190 Business Document Proofreading and Editing	3
_____	COMP 1000 Introduction to Computers	3

*Specializations appear on next page.*

**-and-**

**Choose one of the following specializations**

*Specific Occupational Courses (Business Administrative Assistant Specialization – 24 credits)*

_____	BUSN 1190	Digital Technologies in Business	2
_____	BUSN 1240	Office Procedures	3
_____	BUSN 1410	Spreadsheet Concepts and Applications	4
_____	BUSN 1430	Desktop Publishing and Presentation Applications	4
_____	BUSN 2160	Electronic Mail Applications	2
_____	BUSN 2210	Applied Office Procedures	3

*Occupational Electives (6 credits)*

_____	BUSN xxxx	Any BUSN credit course may be used to satisfy this elective requirement.	
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*Specific Occupational Courses (Medical Administrative Assistant Specialization – 26 credits)*

_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	BUSN 2340	Medical Administrative Procedures	4
_____	BUSN 2370	Healthcare Coding	3
_____	MAST 1120	Human Diseases	3

*Occupational Electives (9 credits)*

_____	BUSN xxxx	Any BUSN credit course may be used to satisfy this elective requirement.	
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# Administrative Support Assistant Certificate (AS21)

The Administrative Support Assistant certificate program prepares individuals to provide administrative support under the supervision of office managers, executive assistants, and other office personnel. Courses of study include introduction to computers, word processing, and office procedures.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment as administrative support assistants or in a related field.

### Credit Required for Completion: Minimum of 20 credit hours

#### Curriculum

Program Course	Credits
<i>Occupational Courses</i>	
_____ BUSN 1240    Office Procedures	3
_____ BUSN 1400    Word Processing Applications	4
_____ BUSN 1440    Document Production	4
*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.	
_____ COMP 1000    Introduction to Computers	3
<i>Occupational Electives (6 credits)</i>	
_____ BUSN xxxx    Any BUSN credit course may be used to satisfy this elective requirement.	

# Medical Billing Clerk Certificate (MB21)

The Medical Billing Clerk certificate program provides instruction in medical insurance and medical billing for reimbursement purposes.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment in providers' offices, hospitals, health insurance companies, home health agencies, and independent billing centers.

**Credit Required for Completion: Minimum of 22 credit hours**

### Curriculum

	Program Course		Credits
<i>Occupational Courses</i>			
_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	BUSN 1440	Document Production	4
	*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.		
_____	BUSN 2370	Healthcare Coding	3
_____	COMP 1000	Introduction to Computers	3
<i>Occupational Electives (5 credits)</i>			
_____	BUSN xxxx	Any BUSN credit course may be used to satisfy this elective requirement.	



# Microsoft Excel Application User Certificate (ME51)

The Microsoft Excel Application Professional certificate program prepares students to be end users of Microsoft Excel. The program emphasizes Microsoft Excel operations necessary for successful employment. It provides short-term training for students desiring to progress in their occupation.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

Graduate may find employment as administrative support assistants or in a related field.

### **Credit Required for Completion: Minimum of 13 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	BUSN 1410      Spreadsheet Concepts and Applications	4
_____	COMP 1000      Introduction to Computers	3
_____	MATH 1011      Business Math	3
	-or-	
_____	MATH 1012      Foundations of Mathematics	(3)
	<i>Occupational Electives (3 credits)</i>	
_____	BUSN xxxx      Any BUSN credit course may be used to satisfy this elective requirement.	

# Microsoft Office Applications Professional Certificate (MF4I)

The Microsoft Office Applications Professional certificate program provides students with the knowledge and skills to perform word processing, spreadsheet, database, and presentation applications in an office environment. It is designed to provide hands-on instruction for developing foundation skills for office assistant careers as well as to prepare students for Microsoft Certified Application Specialist (MCAS) certification.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

## **Career Opportunities**

*Graduates may find employment as administrative support assistants or in a related field.*

## **Credit Required for Completion: 22 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	BUSN 1400      Word Processing Applications	4
_____	BUSN 1410      Spreadsheet Concepts and Applications	4
_____	BUSN 1420      Database Applications	4
_____	BUSN 1430      Desktop Publishing and Presentation Applications	4
_____	COMP 1000      Introduction to Computers	3
	<i>Occupational Electives (3 credits)</i>	
_____	BUSN xxxx      Any BUSN credit course may be used to satisfy this elective requirement.	

# Microsoft Word Application Professional Certificate (MWA1)

The Microsoft Word Application Professional certificate program provides students with the knowledge and skills to perform word processing, spreadsheet, database, and presentation applications in an office environment. It is designed to provide hands-on instruction for developing foundational skills for office assistant careers.

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

## **Career Opportunities**

*Graduates may find employment as administrative support assistants or in a related field.*

## **Credit Required for Completion: Minimum of 14 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	BUSN 1400      Word Processing Applications	4
_____	BUSN 1440      Document Production	4
	*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.	
_____	COMP 1000      Introduction to Computers	3
	<i>Occupational Electives (3 credits)</i>	
_____	BUSN xxxx      Any BUSN credit course may be used to satisfy this elective requirement.	

# Technical Specialist Certificate (TC31)

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

**NOTE:** Many Business Technology students have found that by selecting electives carefully, they are able to obtain several technical certificates. Students should speak with their academic advisors regarding possibilities in relation to their specific needs.

Credits for BUSN 1190, BUSN 1400, BUSN 1410, BUSN 1420, BUSN 1430, BUSN 1440, BUSN 2160, BUSN 2350, and BUSN 2370 or courses requiring those courses as pre-requisites are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

## Career Opportunities

Graduates may find employment in entry-level positions in a variety of business and industry settings.

## Credit Required for Completion: Minimum of 36 credit hours

### Curriculum

- \_\_\_\_\_ General Core Courses (from Associate Degree Area Requirements: 24 credits)
- \_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)
- \_\_\_\_\_ Area II requirements (minimum 3 hours)
- \_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)
- \_\_\_\_\_ Area IV requirements (minimum 3 hours)
- \_\_\_\_\_ Additional 12 hours from Area I, II, III, or IV

Program Course		Credits
<i>Occupational Courses (12 credits)</i>		
_____ BUSN 1300	Introduction to Business	3
_____ BUSN 2190	Business Document Proofreading and Editing	3
_____ COMP 1000	Introduction to Computers	3
_____ MGMT 1100	Principles of Management	3

# Computer Information Systems

## Computer Programming AAS Degree (CP23)

The Computer Programming associate degree program consists of courses designed to provide students with an understanding of the concepts, principles, and techniques required in writing computer software. Those interested in a Computer Programming Associate of Applied Technology degree should be highly motivated individuals who are interested in becoming an Information Technology professional. Program graduates are to be competent in the general areas of English/humanities/fine arts, social/behavioral sciences, natural sciences/mathematics, as well as in the technical areas of SQL, XHTML, systems analysis and design, database management, networking concepts, and the programming languages PHP, Visual BASIC, Java, C++, and JavaScript.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment as entry-level computer programmers.*

**Credit Required for Completion: Minimum of 67 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ CIST 1001	Computer Concepts	4
_____ CIST 1130	Operating Systems and Concepts	4
_____ CIST 1220	Structured Query Language	4

	<i>(continued)</i>		
_____	CIST 1305	Program Design and Development	3
_____	CIST 1510	Web Development	3
_____	CIST 2120	Supporting Application Software	4
_____	CIST 2921	IT Analysis, Design, and Project Management	4
_____	COMP 1000	Introduction to Computers	3
_____	BUSN 1300	Introduction to Business	3
_____	-or-		
_____	MGMT 1120	Introduction to Business	3
	<b>-and-</b>		
	<i>Programming Language Courses (20 credits)</i>		
_____	CIST 2311	Visual Basic I	4
_____	CIST 2371	Java Programming I	4
_____	CIST 2381	Mobile Application Development	4
_____	CIST 2312	Visual Basic II	4
_____	CIST 2372	Java Programming II	4

## Computer Support Specialist AAS Degree (CS23)

The Computer Support 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. 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.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

Graduates may find employment in end-user support, systems integration, PC repair/installation, LAN hardware support, commercial software support, and computer hardware/software sales.

**Credit Required for Graduation: Minimum of 62 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ CIST 1001	Computer Concepts	4
_____ CIST 1122	Hardware Installation and Maintenance	4
_____ CIST 1130	Operating Systems Concepts	3
_____ CIST 1220	Structured Query Language (SQL)	4
_____ CIST 1305	Program Design and Development	3

*Continued on next page.*

	<i>Continued.</i>		
_____	CIST 140I	Computer Networking Fundamentals	4
_____	CIST 160I	Information Security Fundamentals	3
_____	CIST 2120	Supporting Application Software	4
_____	CIST 231I	Visual Basic I	4
	-or-		
_____	CIST 237I	Java Programming I	(4)
_____	CIST 292I	IT Analysis, Design, and Project Management	4
_____	COMP 1000	Introduction to Computers	3
	<i>Occupational Electives (7 credits)</i>		
_____	CIST xxxx	Any CIST credit course may be used to satisfy this elective requirement.	



## Networking Specialist AAS Degree (NSI3)

The Networking 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. 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.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment in network installation and maintenance, networking administration, network operating systems support, and hardware repair/maintenance.*

### **Credit Required for Graduation: Minimum of 66 credit hours**

#### **Networking Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

- General Core Courses*
- \_\_\_\_\_ Area I requirements (minimum 3 hours must include ENGL 1101)
- \_\_\_\_\_ Area II requirements (minimum 3 hours)
- \_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)
- \_\_\_\_\_ Area IV requirements (minimum 3 hours)
- \_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ CIST 1001	Computer Concepts	4
_____ CIST 1122	Hardware Installation and Maintenance	4
_____ CIST 1130	Operating Systems Concepts	3
_____ CIST 1305	Program Design and Development	3
_____ CIST 1401	Computer Networking Fundamentals	4

*Continued on next page.*

<i>Continued.</i>			
_____	CIST 1601	Information Security Fundamentals	3
_____	CIST 2311	Visual Basic I	4
-or-			
_____	CIST 2371	Java Programming I	(4)
_____	COMP 1000	Introduction to Computers	3

*Occupational Electives (7 credits)*

\_\_\_\_\_ CIST xxxx Any CIST credit course may be used to satisfy this elective requirement.

**-and-**

**The following specialization**

*Specific Occupational Courses (Microsoft Specialization – 16 credits)*

_____	CIST 2411	Microsoft Client	4
_____	CIST 2412	Microsoft Server Directory Services	4
_____	CIST 2413	Microsoft Server Infrastructure	4
_____	CIST 2414	Microsoft Server Administrator	4

# Computer Support Specialist Diploma (CSI4)

The Computer Support Specialist diploma program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment in end-user support, systems integration, PC repair/installation, LAN hardware support, commercial software support, and computer hardware/software sales.

### Credit Required for Graduation: Minimum of 55 credit hours

#### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____	CIST 1001 Computer Concepts	4
_____	CIST 1122 Hardware Installation and Maintenance	4
_____	CIST 1130 Operating Systems Concepts	3
_____	CIST 1220 Structured Query Language (SQL)	4
_____	CIST 1305 Program Design and Development	3
_____	CIST 1401 Computer Networking Fundamentals	4
_____	CIST 1601 Information Security Fundamentals	3
_____	CIST 2120 Supporting Application Software	4
_____	CIST 2311 Visual Basic I	4
_____	-or-	
_____	CIST 2371 Java Programming I	(4)
_____	CIST 2921 IT Analysis, Design, and Project Management	4
_____	COMP 1000 Introduction to Computers	3
<i>Occupational Electives (7 credits)</i>		
_____	CIST xxxx Any CIST credit course may be used to satisfy this elective requirement.	

# Networking Specialist Diploma (NSI4)

The Networking Specialist diploma program is designed to provide students with an understanding of the concepts, principles, and techniques required in computer information processing.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### Career Opportunities

Graduates may find employment in network installation and maintenance, network administration, network operating systems support, and hardware repair/maintenance.

**Credit Required for Graduation: Minimum of 54 credit hours**

### Curriculum

Program Course	Credits
<i>Basic Skills Courses</i>	
_____ EMPL 1000      Interpersonal Relations and Professional Development	2
_____ ENGL 1010      Fundamentals of English I	3
_____ MATH 1012      Foundations of Mathematics	3
<i>Occupational Courses</i>	
_____ CIST 1001      Computer Concepts	4
_____ CIST 1122      Hardware Installation and Maintenance	4
_____ CIST 1130      Operating Systems Concepts	3
_____ CIST 1305      Program Design and Development	3
_____ CIST 1401      Computer Networking Fundamentals	4
_____ CIST 1601      Information Security Fundamentals	3
_____ CIST 2311      Visual Basic I	4
_____ -or-	
_____ CIST 2371      Java Programming I	(4)
_____ COMP 1000      Introduction to Computers	3
<i>Occupational Electives (2 credits)</i>	
_____ CIST xxxx      Any CIST credit course may be used to satisfy this elective requirement.	

**-and-**

**The following specialization**

<i>Specific Occupational Courses (Microsoft Specialization – 16 credits)</i>		
_____	CIST 2411	Microsoft Client 4
_____	CIST 2412	Windows Server Directory Services 4
_____	CIST 2413	Microsoft Server Infrastructure 4
_____	CIST 2414	Microsoft Server Administrator 4

## Animation and Game Design Specialist Certificate (AAGI)

The Animation and Game Design Specialist certificate program is designed to prepare students to work in a variety of areas in the game development industry, including animation and interfaces. The emphasis on 2D and 3D animation and 3D graphics for gaming prepares students to work in simulation development, model fantasy characters for games, develop gaming interfaces, and work on interactive media projects.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment as entry-level video game developers or video game designers.*

**Credit Required for Completion: Minimum of 14 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CIST 2710	2D Computer Animation	3
_____	CIST 2730	Introduction to 3D Animation	4
_____	CIST 2733	3D Graphics for Gaming I	4
_____	CIST 2759	Mathematics for Game Developers	3

# Game Development Certificate Specialist (GDSI)

The Game Development Specialist certificate program is designed to prepare students to work as entry-level game developers. The student will be able to design and implement a game. Emphasis will be placed on development for the PC platform.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

## **Career Opportunities**

*Graduates may find employment as entry-level programmers, video game developers, or video game designers.*

**Credit Required for Completion: Minimum of 16 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CIST 2730	Introduction to 3D Animation	4
_____	CIST 2750	Game Design	3
_____	CIST 2751	Game Development I	3
_____	CIST 2752	Game Development II	3
_____	CIST 2759	Mathematics for Game Developers	3

# Help Desk Specialist Certificate (HD41)

The Help Desk Specialist certificate program teaches how to maintain and troubleshoot computer hardware and software and be a support person to handle calls from customers.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

### **Career Opportunities**

*Graduates may find employment as entry-level installation and maintenance technicians, hardware repair/maintenance technicians, and help desk technicians.*

**Credit Required for Completion: Minimum of 25 credit hours**

### **Curriculum**

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ CIST 1001	Computer Concepts	4
_____ CIST 1122	Hardware Installation and Maintenance	4
_____ CIST 1130	Operating Systems Concepts	3
_____ CIST 1401	Computer Networking Fundamentals	4
_____ CIST 2130	Desktop Support Concepts	3
_____ COMP 1000	Introduction to Computers	3
<i>Occupational Electives (4 credits from the list below)</i>		
_____ CIST 2120	Supporting Application Software	4
_____ CIST 2411	Microsoft Client	4
_____ CIST 2414	Microsoft Server Administrator	4



# PC Repair and Network Technician Certificate (PR21)

The PC Repair and Network Technician certificate program prepares the student with the skills needed to perform personal computer troubleshooting and repair.

**NOTE:** Program courses in Computer Information Systems require strong aptitudes for math, problem solving, critical thinking, listening, teamwork, and written direction.

Credits for CIST courses are awarded only for courses that have been completed within the last seven years. Any courses completed over seven years ago may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current software certification.

## **Career Opportunities**

*Graduates may find employment in entry-level installation and maintenance and hardware repair/maintenance occupations.*

**Credit Required for Completion: Minimum of 18 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>General Core Courses</i>		
_____	CIST 1001	Computer Concepts	4
_____	CIST 1122	Hardware Installation and Maintenance	4
_____	CIST 1130	Operating Systems Concepts	3
_____	CIST 1401	Computer Networking Fundamentals	4
_____	COMP 1000	Introduction to Computers	3

# Cosmetology, Barbering, and Esthetician

## Barber II (BI3I)

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 II certificate and is employable as a barber, salon/shop manager, or a salon/shop owner.

**NOTE:** In compliance with GA Code §43-10-8 (2015), anyone applying on or after July 1, 2015, for a certificate of registration with the Georgia State Board of Cosmetology and Barbers must meet the following new requirement:

- Pass the board approved examinations, both written and practical, **within a 24-month period** after having obtained the required credit hours.

Applicants for a certificate of registration who have not tested within the 24-month period will be required by the board to **repeat all of the required credit hours** before retaking the exam. Applicants who fail to pass the written or the practical examination will receive a written statement from the board or the board's designee, stating the manner in which the applicant was deficient. WGTC students required to retest under the new board guidelines must contact an instructor to arrange to retake the required courses, including practicums and topics related to state board preparation.

According to the Georgia State Board of Cosmetology and Barbers, a person may be denied the opportunity to take the licensing examination and/or may be denied a license if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### Career Opportunities

Graduates may be employable as barbers, salon/shop managers, or salon/shop owners.

### Credit Required for Graduation: Minimum of 36 credit hours

#### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	BARB 1000 Introduction to Barber/Styling Implements	3
_____	BARB 1010 Science: Sterilization, Sanitation, and Bacteriology	3
_____	BARB 1022 Haircutting and Shampooing I	3
_____	BARB 1024 Haircutting and Shampooing II	3
_____	BARB 1030 Haircutting /Basic Styling	3
_____	BARB 1040 Shaving	3
_____	BARB 1050 Science Anatomy and Physiology	3

Continued on next page.

_____	BARB 1082	Advanced Haircutting and Styling I	3
_____	BARB 1084	Advanced Haircutting and Styling II	3
_____	BARB 1090	Structure of Skin, Scalp, Hair, and Facial Treatments	3
_____	BARB 1100	Barber/Styling Practicum and Internship	3
_____	BARB 1110	Shop Management/Ownership	3

## Cosmetology Diploma (CO12)

The Cosmetology diploma program is a sequence of courses that prepares students for careers in the field of cosmetology. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in safety, sanitation, state laws, rules, and regulations, chemistry, anatomy and physiology, skin, hair, and nail diseases and disorders, hair treatments and manipulations, hair shaping, hair styling, artificial hair, braiding/intertwining hair, chemical reformation and application, skin and nail care, hair coloring, hair lightening, reception, sales, management, math, reading, writing, interpersonal relations development, computer skills, employability skills, and work ethics. The curriculum meets state licensing requirements of the Georgia State Board of Cosmetology and Barbers.

**NOTE:** In compliance with GA Code §43-10-8 (2015), anyone applying on or after July 1, 2015, for a certificate of registration with the Georgia State Board of Cosmetology and Barbers must meet the following new requirement:

- Pass the board approved examinations, both written and practical, **within a 24-month period** after having obtained the required credit hours.

Applicants for a certificate of registration who have not tested within the 24-month period will be required by the board to **repeat all of the required credit hours** before retaking the exam. Applicants who fail to pass the written or the practical examination will receive a written statement from the board or the board's designee, stating the manner in which the applicant was deficient. WGTC students required to retest under the new board guidelines must contact an instructor to arrange to retake the required courses, including practicums and topics related to state board preparation.

According to the Georgia State Board of Cosmetology and Barbers, a person may be denied the opportunity to take the licensing examination and/or may be denied a license if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### Career Opportunities

Graduates are employable as cosmetology salespersons, cosmetologists, salon managers, or salon owners, or in related employment.

### Credit Required for Graduation: Minimum of 55 credit hours

#### Curriculum

	Program Course		Credits
	<i>Basic Skills Courses</i>		
_____	EMPL 1000	Interpersonal Relations and Professional Development	2
_____	ENGL 1010	Fundamentals of English I	3
_____	MATH 1012	Foundations of Mathematics	3
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	COSM 1000	Introduction to Cosmetology Theory	4
_____	COSM 1010	Chemical Texture Services	3
	<i>(continued on next page)</i>		

	<i>(continued)</i>		
_____	COSM 1020	Hair Care and Treatment	3
_____	COSM 1030	Haircutting	3
_____	COSM 1040	Styling	3
_____	COSM 1050	Hair Color	3
_____	COSM 1060	Fundamentals of Skin Care	3
_____	COSM 1070	Nail Care and Advanced Techniques	3
_____	COSM 1080	Physical Hair Services Practicum I	3
_____	COSM 1090	Hair Services Practicum II	3
_____	COSM 1100	Hair Services Practicum III	3
_____	COSM 1110	Hair Services Practicum IV	3
_____	COSM 1115	Hair Services Practicum V	2
_____	COSM 1120	Salon Management	3
_____	COSM 1125	Skin and Nail Care Practicum	2

## Esthetician Certificate (CE I I)

The Esthetician certificate 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 Barbers 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 dermatologists' offices.

### NOTE:

In compliance with GA Code §43-10-8 (2015), anyone applying on or after July 1, 2015, for a certificate of registration with the Georgia State Board of Cosmetology and Barbers must meet the following new requirement:

- Pass the board approved examinations, both written and practical, **within a 24-month period** after having obtained the required credit hours.

Applicants for a certificate of registration who have not tested within the 24-month period will be required by the board to **repeat all of the required credit hours** before retaking the exam. Applicants who fail to pass the written or the practical examination will receive a written statement from the board or the board's designee, stating the manner in which the applicant was deficient. WGTC students required to retest under the new board guidelines must contact an instructor to arrange to retake the required courses, including practicums and topics related to state board preparation.

According to the Georgia State Board of Cosmetology and Barbers, a person may be denied the opportunity to take the licensing examination and/or may be denied a license if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### Career Opportunities

Graduate may find employment as estheticians in a variety of settings, including beauty salons, spas, health clubs, cosmetics stores, as well as plastic surgeons' and dermatologists' offices.

### Credit Required for Completion: Minimum of 33 credit hours

#### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	COSM 1120 Salon Management	3
_____	ESTH 1000 Introduction to Esthetics	3
_____	ESTH 1010 Anatomy and Physiology of the Skin	3
_____	ESTH 1020 Skin Care Procedures	4
_____	ESTH 1030 Electricity and Facial Treatments with Machines	5
_____	ESTH 1040 Advanced Skin Care	3
_____	ESTH 1050 Color Theory and Makeup	4
_____	ESTH 1060 Esthetics Practicum I	4
_____	ESTH 1070 Esthetics Practicum II	4

## Shampoo Technician Certificate (STII)

The Shampoo Technician certificate program introduces courses that prepare students for careers in the field of cosmetology as shampoo technicians. Learning opportunities develop academic and professional knowledge required for job acquisition, retention, and advancement. The program emphasizes specialized training for safety, sanitation, state laws, rules and regulations, chemistry, anatomy and physiology, skin, hair, hair treatments and manipulations, hair styling, artificial hair, braiding/intertwining hair, reception sales, management, employability skills, and work ethics.

### NOTE:

In compliance with GA Code §43-10-8 (2015), anyone applying on or after July 1, 2015, for a certificate of registration with the Georgia State Board of Cosmetology and Barbers must meet the following new requirement:

- Pass the board approved examinations, both written and practical, **within a 24-month period** after having obtained the required credit hours.

Applicants for a certificate of registration who have not tested within the 24-month period will be required by the board to **repeat all of the required credit hours** before retaking the exam. Applicants who fail to pass the written or the practical examination will receive a written statement from the board or the board's designee, stating the manner in which the applicant was deficient. WGTC students required to retest under the new board guidelines must contact an instructor to arrange to retake the required courses, including practicums and topics related to state board preparation.

According to the Georgia State Board of Cosmetology and Barbers, a person may be denied the opportunity to take the licensing examination and/or may be denied a license if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### Career Opportunities

Graduates are employable as cosmetology salespersons, salon managers, or salon owners.

### Credit Required for Completion: Minimum of 13 credit hours

#### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	COSM 1000 Introduction to Cosmetology Theory	4
_____	COSM 1020 Hair Care and Treatment	3
_____	COSM 1040 Styling	3
_____	COSM 1120 Salon Management	3

# Criminal Justice

## AS Degree in Criminal Justice (AJ13)

The Associate of Science Degree in Criminal Justice provides a solid foundation in general education and criminal justice that prepares students for entry-level employment in a variety of law enforcement fields or for continued education toward a baccalaureate degree. The sequence of courses in the areas of criminal investigation and procedure, criminology, juvenile delinquency, and law enforcement allows students to gain a deeper understanding of criminal behavior and the law enforcement system. Graduates may pursue additional educational opportunities at senior institutions or pursue entry level positions in fields related to law enforcement, security (private or public), loss prevention, court administration, social services, or in a variety of fields that require a dedication to duty and a commitment to public safety.

**NOTE:** This degree will transfer to specific institutions within the University System of Georgia with which WGTC has articulation agreements. For further information about the terms of these agreements, as well as transferability of general education courses and occupational programs to other Georgia colleges and universities, please refer to the WGTC web page, *Articulation Agreements*, <http://www.westgatech.edu/registration/articulation.htm>. Please consult an academic advisor for requirements specific to each institution.

### **Career Opportunities**

*Graduates may pursue additional education opportunities at senior institutions or pursue entry level positions in fields related to law enforcement, security (private or public), loss prevention, court administration, social services, or in a variety of fields that require a dedication to duty and a commitment to public safety.*

**Credit Required for Graduation: Minimum of 62 credit hours**

### **Curriculum**

The Associate of Science in Criminal Justice degree requires a minimum of 47 credit hours of general education courses as specified below (**all course prerequisites must be met**).

<b>General Core Courses</b>		<b>Credits</b>
<b>Area I</b> Language Arts/Communication Requirement (minimum 12 hours)		
_____ ENGL 1101	Composition and Rhetoric	3
_____ ENGL 1102	Literature and Composition	3
_____ SPCH 1101	Public Speaking	3
_____ SPAN 1101	Introduction to Spanish Language and Culture I	3
-or-		
_____ SPAN 1102	Introduction to Spanish Language and Culture II	(3)
<b>Area II</b> Social/Behavioral Sciences Requirement (minimum 15 hours)		
_____ HIST 1111	World History I	3
-or-		
_____ HIST 1112	World History II	(3)



<b>Area II - continued</b>			
_____	HIST 2111	US History I	3
	-or-		
_____	HIST 2112	US History II	(3)
_____	POLS 1101	American Government	3
_____	PSYC 1101	Introductory Psychology	3
_____	SOCI 1101	Introduction to Sociology	3
<b>Area III Natural Sciences/Mathematics Requirement (minimum 14 hours)</b>			
_____	MATH 1111	College Algebra	3
_____	MATH 1127	Introduction to Statistics	3
<b>-and-</b>			
one of the three lab science sequences below (4 courses, 8 credits, total):			
_____	BIOL 1111	Biology I	3
_____	BIOL 1111L	Biology I Lab	1
_____	BIOL 1112	Biology II	3
_____	BIOL 1112L	Biology II Lab	1
	-or-		
_____	CHEM 1151	Survey of Inorganic Chemistry	(3)
_____	CHEM 1151L	Survey of Inorganic Chemistry Lab	(1)
_____	CHEM 1152	Survey of Organic Chemistry and Biochemistry	(3)
_____	CHEM 1152L	Survey of Organic Chemistry and Biochemistry Lab	(1)
	-or-		
_____	PHYS 1111	Introductory Physics I	(3)
_____	PHYS 1111L	Introductory Physics I Lab	(1)
_____	PHYS 1112	Introductory Physics II	(3)
_____	PHYS 1112L	Introductory Physics II Lab	(1)
<b>Area IV Humanities/Fine Arts Requirement (minimum 6 hours)</b>			
_____	ENGL 2130	American Literature	3
	-or-		
_____	HUMN 1101	Introduction to Humanities	(3)
<b>-and-</b>			
_____	ARTS 1101	Art Appreciation	3
	-or-		
_____	MUSC 1101	Music Appreciation	(3)
	-or-		
_____	THEA 1101	Theater Appreciation	(3)

Program courses appear on next page.

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses (minimum 15-18 credits, dependent upon accepting institution)</i>		
_____	CRJU 1010 Introduction to Criminal Justice	3
_____	CRJU 1040 Principles of Law Enforcement	3
_____	CRJU 2050 Introduction to Criminal Procedure	3
_____	CRJU 2060 Criminology	3
_____	CRJU 2070 Juvenile Justice <i>(required for UWG transfer only)</i>	3
	-or-	
_____	CRJU 1030 Corrections <i>(required for CSU transfer only)</i>	(3)
_____	CRJU 1068 Criminal Law <i>(required for CSU transfer only)</i>	(3)

## Criminal Justice Technology AAS Degree (CJT3)

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. Completion of the Criminal Justice Technology associate degree does not ensure certification of officer status in Georgia. Students must seek such certification from the Peace Officer Standards and Training (P.O.S.T.) Council.

**NOTE:** Prospective students need to know that they will be required to meet all applicable employment requirements, including satisfactory background and criminal checks, in order to qualify for some internships and to gain employment in most law enforcement settings. A felony and/or aggravated misdemeanor conviction may bar students from completing the program. A felony and/or aggravated misdemeanor conviction also may preclude the student from obtaining employment in the Criminal Justice profession.

### **Career Opportunities**

*Graduates who are current practitioners will benefit through enhancement of career potential. Entry-level opportunities include corrections, security, investigation, police and sheriff's patrol, administration, and other enforcement areas.*

### **Credit Required for Graduation: Minimum of 60 credit hours**

#### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

*Program courses appear on next page.*

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____	COMP 1000 Introduction to Computers	3
_____	CRJU 1010 Introduction to Criminal Justice	3
_____	CRJU 1030 Corrections	3
_____	CRJU 1040 Principles of Law Enforcement	3
_____	CRJU 1068 Criminal Law for Criminal Justice	3
_____	CRJU 1400 Ethics and Cultural Perspectives for Criminal Justice	3
_____	CRJU 2020 Constitutional Law for Criminal Justice	3
_____	CRJU 2050 Criminal Procedure	3
_____	CRJU 2070 Juvenile Justice	3
_____	CRJU 2090 Criminal Justice Practicum	3
_____	-or- CRJU 2100 Criminal Justice Internship/Externship	(3)
<i>Occupational Electives (15 credits from the list below)</i>		
_____	CRJU 1021 Private Security	3
_____	CRJU 1043 Probation and Parole	3
_____	CRJU 1062 Methods of Criminal Investigation	3
_____	CRJU 1063 Crime Scene Processing	3
_____	CRJU 1065 Community-Oriented Policing	3
_____	CRJU 1072 Introduction to Forensic Science	3
_____	CRJU 1075 Report Writing	3
_____	CRJU 2060 Criminology	3

## Criminal Justice Technology Diploma (CJT2)

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. Completion of the Criminal Justice Technology diploma does not ensure certification of officer status in Georgia. Students must seek such certification from the Peace Officer Standards and Training (P.O.S.T.) Council.

**NOTE:** Prospective students should know that they will be required to meet all applicable employment requirements, including satisfactory background and criminal checks, in order to qualify for some internships and to gain employment in most law enforcement settings. A felony and/or aggravated misdemeanor conviction may bar students from completing the program. A felony and/or aggravated misdemeanor conviction also may preclude students from obtaining employment in the criminal justice profession.

### Career Opportunities

Graduates are employable in a variety of occupations, including correctional officers, private detectives and investigators, security guards, and police and sheriff's patrol officers.

### Credit Required for Graduation: Minimum of 48 credit hours

#### Curriculum

Program Course		Credits
<i>Basic Skills Courses</i>		
_____ PSYC 1010	Basic Psychology	3
_____ ENGL 1010	Fundamentals of English I	3
_____ MATH 1012	Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____ COMP 1000	Introduction to Computers	3
_____ CRJU 1010	Introduction to Criminal Justice	3
_____ CRJU 1030	Corrections	3
_____ CRJU 1040	Principles of Law Enforcement	3
_____ CRJU 1068	Criminal Law for Criminal Justice	3
_____ CRJU 1400	Ethics and Cultural Perspectives for Criminal Justice	3
_____ CRJU 2020	Constitutional Law for Criminal Justice	3
_____ CRJU 2050	Criminal Procedure	3
_____ CRJU 2070	Juvenile Justice	3

(listing continued on next page)

	<i>(continued)</i>		
_____	CRJU 2090	Criminal Justice Practicum	3
	-or-		
_____	CRJU 2100	Criminal Justice Internship/Externship	(3)
	<i>Occupational Electives (9 credits from the list below)</i>		
_____	CRJU 1021	Private Security	3
_____	CRJU 1043	Probation and Parole	3
_____	CRJU 1062	Methods of Criminal Investigation	3
_____	CRJU 1063	Crime Scene Processing	3
_____	CRJU 1075	Report Writing	3
_____	CRJU 2060	Criminology	3

## Crime Scene Fundamentals Certificate (CZ31)

The Crime Scene Fundamentals certificate program begins to introduce students to various careers in the rapidly growing field of forensic science. Students will gain introductory exposure to knowledge and skills that may encourage further academic preparation in careers in forensic technology in areas such as crime scene investigation, death investigation, laboratory technology, evidence technology, forensic computer science, and general forensic science or criminal justice fields.

### **Career Opportunities**

*Graduates will gain introductory exposure to knowledge and skills that may encourage preparation and departmental advancement in the areas of forensic technology or criminal justice.*

### **Credit Required for Completion: Minimum of 12 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	CRJU 1010 Introduction to Criminal Justice	3
_____	CRJU 1062 Methods of Criminal Investigation	3
_____	CRJU 1063 Crime Scene Processing	3

## Criminal Justice Fundamentals Certificate (CJ71)

The Criminal Justice Fundamentals certificate 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. Completion of the Criminal Justice Specialist certificate program may permit students to pursue entry-level opportunities in the criminal justice field. Completion of this certificate program does not ensure certification of officer status in Georgia. Students must seek such certification through the Peace Officer Standards and Training (P.O.S.T.) Council.

### **Career Opportunities**

*Graduates qualify for entry-level employment that can lead to on-the-job training for certification as peace officers and may pursue positions with state, local, or federal agencies.*

**Credit Required for Completion: Minimum of 12 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	CRJU 1010	Introduction to Criminal Justice	3
_____	CRJU 1030	Corrections	3
_____	CRJU 1040	Principles of Law Enforcement	3



# Culinary Arts

## Culinary Arts AAS Degree (CA43)

The Culinary Arts associate degree program is a sequence of courses that prepares students for the culinary profession. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of culinary theory and practical application necessary for successful employment.

### **Career Opportunities**

*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.*

### **Credit Required for Graduation: Minimum of 65 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	CUUL 1000 Fundamentals of Culinary Arts	4
_____	CUUL 1110 Culinary Safety and Sanitation	2
_____	CUUL 1120 Principles of Cooking	6
_____	CUUL 1129 Fundamentals of Restaurant Operations	4
_____	CUUL 1220 Baking Principles	5
_____	CUUL 1320 Garde Manger	4
_____	CUUL 1370 Culinary Nutrition and Menu Development	3
	<i>(continued on next page)</i>	

	<i>(continued)</i>		
_____	CUUL 2130	Culinary Practicum	6
	-or-		
_____	CUUL 2140	Advanced Baking and International Cuisine	(6)
_____	CUUL 2160	Contemporary Cuisine	4
_____	CUUL 2190	Principles of Culinary Leadership	3
	-or-		
_____	MGMT 1115	Leadership	(3)
	<i>Occupational Electives (6 credits from the list below)</i>		
_____	CUUL 1400	Basic Nutrition	3
_____	CUUL 1420	Marketing & Customer Services	3
_____	CUUL 1450	Food Service Manager and Training I	3
_____	CUUL 1460	Food Service Manager and Training II	3

## Culinary Arts Diploma (CA44)

The Culinary Arts diploma program is a sequence of courses that prepares students for the culinary profession. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of culinary theory and practical application necessary for successful employment.

### Career Opportunities

Graduates will be prepared to pursue diverse opportunities in the culinary field as cooks, bakers, or caterers/culinary managers.

### Credit Required for Graduation: Minimum of 52 credit hours

#### Curriculum

	Program Course	Credits
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	CUUL 1000 Fundamentals of Culinary Arts	4
_____	CUUL 1110 Culinary Safety and Sanitation	2
_____	CUUL 1120 Principles of Cooking	6
_____	CUUL 1129 Fundamentals of Restaurant Operations	4
_____	CUUL 1220 Baking Principles	5
_____	CUUL 1320 Garde Manger	4
_____	CUUL 1370 Culinary Nutrition and Menu Development	3
_____	CUUL 2130 Culinary Practicum and Leadership	6
_____	-or-	
_____	CUUL 2140 Advanced Baking and International Cuisine	(6)
_____	CUUL 2160 Contemporary Cuisine	4
_____	CUUL 2190 Principles of Culinary Leadership	3
_____	-or-	
_____	MGMT 1115 Leadership	(3)

# Baking and Pastry Specialist Certificate (BA51)

The Baking and Pastry Specialist certificate program is designed to provide advanced skills for employment in the food service industry as bakery or pastry shop workers, commercial bakers, and pastry chefs.

## **Career Opportunities**

*Graduates may find employment as bake shop assistants, pastry shop employees, or working pastry chefs.*

## **Credit Required for Completion: Minimum of 25 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	MATH 1012      Foundations of Mathematics	3
_____	CUUL 1110      Culinary Safety and Sanitation	2
_____	CUUL 1120      Principles of Cooking	6
_____	CUUL 1220      Baking Principles	5
_____	CUUL 1370      Culinary Nutrition and Menu Development	3
_____	CUUL 2250      Advanced Baking Principles	6

# Catering Specialist Certificate (CS61)

The Catering Specialist certificate program is a sequence of courses that prepares students for the catering profession. Learning opportunities develop occupational and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of culinary theory and practical application necessary for successful employment.

### Career Opportunities

Graduates may find employment as a catering specialist with restaurants, resorts, event planners, or a variety of companies providing catering services.

### Credit Required for Completion: Minimum of 25 credit hours

#### Curriculum

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CUUL 1110	Culinary Safety and Sanitation	2
_____	CUUL 1120	Principles of Cooking	6
_____	CUUL 1129	Fundamentals of Restaurant Operations	4
_____	CUUL 1220	Baking Principles	5
_____	CUUL 1320	Garde Manger	4
_____	CUUL 2160	Contemporary Cuisine	4

# Food Production Worker I Certificate (FPWI)

The Food Production Worker I certificate program is designed to provide basic entry-level skills for employment in the food service industry as prep cooks and banquet/service prep workers.

## **Career Opportunities**

*Graduates may pursue diverse entry-level opportunities in the food service industry as prep cooks and banquet/service prep workers.*

**Credit Required for Completion: Minimum of 16 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CUUL 1000	Fundamentals of Culinary Arts	4
_____	CUUL 1110	Culinary Safety and Sanitation	2
_____	CUUL 1120	Principles of Cooking	6
_____	CUUL 1129	Fundamentals of Restaurant Operations	4

## Prep Cook Certificate (PC51)

The Prep Cook certificate program provides skills for entry into the food services preparation area as a prep cook. Topics include food services history, safety and sanitation, purchasing and food control, nutrition and menu development and design, along with the principles of cooking.

### **Career Opportunities**

*Graduates may pursue diverse entry-level opportunities in the food services preparation area as prep cooks.*

**Credit Required for Completion: Minimum of 12 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CUUL 1000	Fundamentals of Culinary Arts	4
_____	CUUL 1110	Culinary Safety and Sanitation	2
_____	CUUL 1120	Principles of Cooking	6

# Restaurant Operations Certificate (RPSI)

The Restaurant Operations Specialist certificate program is a sequence of courses that prepare students for the culinary profession. Learning opportunities develop occupational and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of culinary theory and practical application necessary for successful employment.

## **Career Opportunities**

*Graduates may find entry-level employment as front-of-the-house or gourmet supervisors in a variety of food and beverage operations.*

## **Credit Required for Completion: Minimum of 11 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CUUL 1129	Fundamentals of Restaurant Operations	4
_____	CUUL 2160	Contemporary Cuisine	4
_____	CUUL 2190	Principles of Culinary Leadership	3



# Early Childhood Care and Education

## Early Childhood Care and Education AAS Degree (EC13)

The Early Childhood Care and Education associate degree program is a sequence of courses designed to prepare students for a variety of careers in the field of early childhood education. The program emphasizes a combination of early childhood care and education theory and practical application as well as general core competencies necessary for successful employment.

**NOTE:** To be employed in a child care center licensed by the Georgia Department of Early Care and Learning, an individual must first complete a comprehensive background check with evidence of a satisfactory determination of the following: National fingerprint-based criminal history check; Georgia Child Abuse Registry; National Sex Offender Registry; and, a State fingerprint-based criminal history records check and State child abuse registry for every U.S. territory, tribal land, or state in which the person has resided in the past five (5) years. Students must have a comprehensive background check with evidence of a satisfactory determination from the above list in order to complete program requirements. The cost of these record checks are at the student's expense and must be completed before participation in a practicum or internship whether completing practicum or internship at a licensed Georgia child care center, private child care or public school.

### **Career Opportunities**

*Graduates have qualifications to be employed in early care and education settings. Graduates may find employment as paraprofessionals in public schools; preschool teachers in Head Start, Early Head Start, or private schools; private household childcare workers; or self-employed childcare providers. (Bright from the Start recognizes this degree as equivalent to or greater than a CDA for employment.)*

**Credit Required for Graduation: Minimum of 72 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Early Childhood Care and Education associate degree program requires an additional 3 credit hours in Area I for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 6 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____	COMP 1000 Introduction to Computers	3
_____	ECCE 1101 Introduction to Early Childhood Care and Education	3
_____	ECCE 1103 Child Growth and Development	3
_____	ECCE 1105 Health, Safety and Nutrition	3
_____	ECCE 1112 Curriculum and Assessment	3
_____	ECCE 1113 Creative Activities for Children	3
_____	ECCE 1121 Early Childhood Care and Education Practicum	3
_____	ECCE 2115 Language and Literacy	3
_____	ECCE 2116 Math and Science	3
_____	ECCE 2201 Exceptionalities	3
_____	ECCE 2202 Social Issues and Family Involvement	3
_____	ECCE 2203 Guidance and Classroom Management	3
_____	ECCE 2240 Early Childhood Care and Education Internship	12

**-and-**

**Choose one of the following specializations**

*Specific Occupational Courses (**Paraprofessional Specialization – 6 credits**)*

_____	ECCE 2310 Paraprofessional Methods and Materials	3
_____	ECCE 2312 Paraprofessional Roles and Practices	3

*Specific Occupational Courses (**Program Administration – 6 credits**)*

_____	ECCE 2320 Program Administration and Facility Management	3
_____	ECCE 2322 Personnel Management	3

*Specific Occupational Courses (**Infant/Toddler Development – 6 credits**)*

_____	ECCE 2330 Infant/Toddler Development	3
_____	ECCE 2332 Infant/Toddler Group Care and Curriculum	3

## Early Childhood Care and Education Diploma (ECC2)

The Early Childhood Care and Education diploma program is a sequence of courses designed to prepare students for a variety of careers in the field of early childhood education. The program emphasizes a combination of early childhood care and education theory and practical application, as well as limited basic skills competencies necessary for successful employment.

**NOTE:** To be employed in a child care center licensed by the Georgia Department of Early Care and Learning, an individual must first complete a comprehensive background check with evidence of a satisfactory determination of the following: National fingerprint-based criminal history check; Georgia Child Abuse Registry; National Sex Offender Registry; and, a State fingerprint-based criminal history records check and State child abuse registry for every U.S. territory, tribal land, or state in which the person has resided in the past five (5) years. Students must have a comprehensive background check with evidence of a satisfactory determination from the above list in order to complete program requirements. The cost of these record checks are at the student's expense and must be completed before participation in a practicum or internship whether completing practicum or internship at a licensed Georgia child care center, private child care or public school.

### Career Opportunities

Graduates have qualifications to be employed in early care and education settings. Graduates may find employment as private preschool teachers, household childcare workers, self-employed childcare providers, or Head Start assistants. (Bright from the Start recognizes this degree as equivalent to or greater than a CDA for employment.)

### Credit Required for Graduation: Minimum of 53 credit hours

#### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
	-or-	
_____	PSYC 1010 Basic Psychology	(3)
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____	COMP 1000 Introduction to Computers	3
_____	ECCE 1101 Introduction to Early Childhood Care and Education	3
_____	ECCE 1103 Child Growth and Development	3
_____	ECCE 1105 Health, Safety and Nutrition	3
_____	ECCE 1112 Curriculum and Assessment	3
_____	ECCE 1113 Creative Activities for Children	3
_____	ECCE 1121 Early Childhood Care and Education Practicum	3

*Continued on next page.*

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_____ ECCE 2115	Language and Literacy	3
_____ ECCE 2116	Math and Science	3
_____ ECCE 2202	Social Issues and Family Involvement	3
_____ ECCE 2203	Guidance and Classroom Management	3
_____ ECCE 2240	Early Childhood Care and Education Internship	12

## Child Development Specialist Certificate (CD61)

The Early Childhood Care and Education Child Development Specialist certificate program is a sequence of courses designed to prepare students for a variety of careers in the field of early childhood education. The program emphasizes the basics needed for a career in early childhood, but this TCC also includes more content about planning curriculum and working in the field. In addition, the student may complete a practicum and work in a childcare program. Graduates have qualifications to be employed in early care and education settings, including childcare centers and Head Start.

**NOTE:** To be employed in a child care center licensed by the Georgia Department of Early Care and Learning, an individual must first complete a comprehensive background check with evidence of a satisfactory determination of the following: National fingerprint-based criminal history check; Georgia Child Abuse Registry; National Sex Offender Registry; and, a State fingerprint-based criminal history records check and State child abuse registry for every U.S. territory, tribal land, or state in which the person has resided in the past five (5) years. Students must have a comprehensive background check with evidence of a satisfactory determination from the above list in order to complete program requirements. The cost of these record checks are at the student's expense and must be completed before participation in a practicum or internship whether completing practicum or internship at a licensed Georgia child care center, private child care or public school.

### Career Opportunities

Graduates may find employment in early care and education settings including childcare centers and Georgia Pre-K programs. Bright from the Start (BFTS), the regulatory agency in Georgia, requires the basic knowledge included in this TCC for a person to be a lead teacher in a childcare center and family day care center. (Bright from the Start recognizes this certificate as equivalent to a CDA for employment.)

### Credit Required for Completion: Minimum of 14 credit hours

#### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	ECCE 1101 Introduction to Early Childhood Care and Education	3
_____	ECCE 1103 Child Growth and Development	3
_____	ECCE 1105 Health, Safety and Nutrition	3
_____	ECCE 1112 Curriculum and Assessment	3
_____	ECCE 1121 Early Childhood Care and Education Practicum	3
	-or-	
_____	EMPL 1000 Interpersonal Relations and Professional Development	(2)

# Early Childhood Care and Education Basics Certificate (EC31)

The Early Childhood Care and Education (ECCE) Basics certificate program includes three basic Early Childhood Care and Education courses that are needed for entry-level workers. The program provides an introductory course to the ECCE field; a child growth and development course; and a health, safety, and nutrition course.

**NOTE:** To be employed in a child care center licensed by the Georgia Department of Early Care and Learning, an individual must first complete a comprehensive background check with evidence of a satisfactory determination of the following: National fingerprint-based criminal history check; Georgia Child Abuse Registry; National Sex Offender Registry; and, a State fingerprint-based criminal history records check and State child abuse registry for every U.S. territory, tribal land, or state in which the person has resided in the past five (5) years. Students must have a comprehensive background check with evidence of a satisfactory determination from the above list in order to complete program requirements. The cost of these record checks are at the student's expense and must be completed before participation in a practicum or internship whether completing practicum or internship at a licensed Georgia child care center, private child care or public school.

## **Career Opportunities**

Graduates may find employment in early care and education settings including childcare centers and Georgia Pre-K programs. Bright from the Start (BFTS), the regulatory agency in Georgia, requires the basic knowledge included in this TCC for a person to be a lead teacher in a childcare center and family day care center. (Bright from the Start recognizes this certificate as equivalent to a CDA for employment.)

**Credit Required for Completion: Minimum of 9 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ECCE 1101	Introduction to Early Childhood Care and Education	3
_____	ECCE 1103	Child Growth and Development	3
_____	ECCE 1105	Health, Safety and Nutrition	3

# Infant and Toddler Child Care Specialist Certificate (IC31)

The Early Childhood Care and Education Infant/Toddler Child Care Specialist certificate program is a sequence of courses designed to prepare students with the basics needed for working with infants and toddlers. The program provides an intense look at understanding and learning activities and proper care needed for infants and toddlers.

**NOTE:** To be employed in a child care center licensed by the Georgia Department of Early Care and Learning, an individual must first complete a comprehensive background check with evidence of a satisfactory determination of the following: National fingerprint-based criminal history check; Georgia Child Abuse Registry; National Sex Offender Registry; and, a State fingerprint-based criminal history records check and State child abuse registry for every U.S. territory, tribal land, or state in which the person has resided in the past five (5) years. Students must have a comprehensive background check with evidence of a satisfactory determination from the above list in order to complete program requirements. The cost of these record checks are at the student's expense and must be completed before participation in a practicum or internship whether completing practicum or internship at a licensed Georgia child care center, private child care or public school.

### **Career Opportunities**

Graduates may find employment in early care and education settings including childcare centers and Georgia Pre-K programs. Bright from the Start (BFTS), the regulatory agency in Georgia, requires the basic knowledge included in this TCC for a person to be a lead teacher in a childcare center and family day care center. (Bright from the Start recognizes this certificate as equivalent to a CDA for employment.)

**Credit Required for Completion: Minimum of 15 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ECCE 1101	Introduction to Early Childhood Care and Education	3
_____	ECCE 1103	Child Growth and Development	3
_____	ECCE 1105	Health, Safety and Nutrition	3
_____	ECCE 2330	Infant/Toddler Development	3
_____	ECCE 2332	Infant/Toddler Group Care and Curriculum	3

# General Business

## AS Degree in General Business (AF23)

The Associate of Science in General Business degree program provides an introductory foundation to core aspects of the business environment while also preparing students for continued study in the field of business. The program develops skills through course work in communication, social/behavioral sciences, natural sciences and mathematics, and the humanities, as well as through course work in the business disciplines. Graduates may pursue additional education opportunities at senior institutions or pursue a variety of entry-level positions in the broad career field of business.

**NOTE:** This degree will transfer to specific institutions within the University System of Georgia with which WGTC has articulation agreements. For further information about the terms of this agreement, as well as transferability of general education courses and occupational programs to other Georgia colleges and universities, please refer to the WGTC web page, *Articulation Agreements*, <http://www.westgatech.edu/registration/articulation.htm>. Please consult an academic advisor for requirements specific to each institution.

Credits for ACCT courses other than ACCT 2140 and 2145 are awarded only if the courses have been completed within the last seven years. Courses over seven years old may be recommended by the program chair and approved by the Dean of the School of Business/Public Services if the student presents recent, documented, in-field experience or current accounting certification.

### **Career Opportunities**

*Graduates will have the necessary skills to find entry-level employment in business, local and state government, health care facilities, hotels, real estate, banking, restaurants, not-for-profit organizations, insurance, and sales.*

**Credit Required for Graduation: Minimum of 67 credit hours**

### **Curriculum**

The Associate of Science in General Business degree requires a minimum of 44 credit hours of general education courses as specified below **(all course prerequisites must be met)**.

<b>General Core Courses</b>		<b>Credits</b>
<b>Area I</b> Language Arts/Communication Requirement (minimum 12 hours)		
_____ ENGL 1101	Composition and Rhetoric	3
_____ ENGL 1102	Literature and Composition	3
_____ SPCH 1101	Public Speaking	3
_____ SPAN 1101	Introduction to Spanish Language and Culture I	3
_____ -or-		
_____ SPAN 1102	Introduction to Spanish Language and Culture II	(3)
<b>Area II</b> Social/Behavioral Sciences Requirement (minimum 12 hours)		
_____ HIST 1111	World History I	3
_____ -or-		
_____ HIST 1112	World History II	(3)

*(continued on next page)*



	<i>(continued)</i>		
_____	HIST 2111	US History I	3
	-or-		
_____	HIST 2112	US History II	(3)
_____	POLS 1101	American Government	3
_____	PSYC 1101	Introductory Psychology	3
	-or-		
_____	SOCI 1101	Introduction to Sociology	(3)
	<b>Area III</b>	Natural Sciences/Mathematics Requirement (minimum 14 hours)	
_____	MATH 1111	College Algebra	3
_____	MATH 1127	Introduction to Statistics	3
	<b>-and-</b>		
	one of the three lab science sequences below (4 courses, 8 credits, total):		
_____	BIOL 1111	Biology I	3
_____	BIOL 1111L	Biology I Lab	1
_____	BIOL 1112	Biology II	3
_____	BIOL 1112L	Biology II Lab	1
	-or-		
_____	CHEM 1151	Survey of Inorganic Chemistry	(3)
_____	CHEM 1151L	Survey of Inorganic Chemistry Lab	(1)
_____	CHEM 1152	Survey of Organic Chemistry and Biochemistry	(3)
_____	CHEM 1152L	Survey of Organic Chemistry and Biochemistry Lab	(1)
	-or-		
_____	PHYS 1111	Introductory Physics I	(3)
_____	PHYS 1111L	Introductory Physics I Lab	(1)
_____	PHYS 1112	Introductory Physics II	(3)
_____	PHYS 1112L	Introductory Physics II Lab	(1)
	<b>Area IV</b>	Humanities/Fine Arts Requirement (minimum 6 hours)	
_____	ENGL 2130	American Literature	(3)
	-or-		
_____	HUMN 1101	Introduction to Humanities	(3)
	<b>-and-</b>		
_____	ARTS 1101	Art Appreciation	3
	-or-		
_____	MUSC 1101	Music Appreciation	(3)
	-or-		
_____	THEA 1101	Theater Appreciation	(3)

Program courses appear on next page.

<b>Program Courses</b>		<b>Credits</b>
<i>Occupational Courses (23 credits)</i>		
_____	ACCT 1100      Financial Accounting I	4
_____	ACCT 1105      Financial Accounting II	4
_____	ACCT 2000      Managerial Accounting	3
_____	ACCT 2140      Legal Environment of Business <i>(required for CSU transfer only)</i>	3
	-or-	
_____	MGMT 2160      Legal and Ethical Environment of Business <i>(required for UWG transfer only)</i>	(3)
_____	CIST 2128      Comprehensive Spreadsheet Techniques <i>(required for CSU transfer only)</i>	3
	-or-	
_____	COMP 1000      Introduction to Computers <i>(required for UWG transfer only)</i>	(3)
_____	ECON 2105      Macroeconomics	3
_____	ECON 2106      Microeconomics	3

# Marketing Management

## Marketing Management AAS Degree (MMI3)

The Marketing Management associate degree program is designed to prepare students for employment in a variety of positions in today's marketing and management fields. 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 area of marketing.

### Career Opportunities

Graduates may find employment as buyers, advertising managers, retail store managers, tellers, general merchandise salespersons, merchandise displayers, department managers, or any of many other marketing related jobs. Any of the above employment opportunities should provide the graduate experience to assist in opening his or her own business.

**Credit Required for Graduation: Minimum of 66 credit hours**

### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Marketing Management associate degree program requires an additional 3 credit hours in any area for a total of 18 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### General Core Courses

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 6 hours from Area I, II, III, or IV

Program Course		Credits
<i>Occupational Courses</i>		
_____ ACCT 1100	Financial Accounting I	4
_____ BUSN 1190	Digital Technologies in Business	2
_____ -or- _____ BUSN 1430	Desktop Publishing and Presentation Applications	(4)
_____ COMP 1000	Introduction to Computers	3
_____ MGMT 1100	Principles of Management	3
_____ MKTG 1100	Principles of Marketing	3
_____ MKTG 1130	Business Regulations and Compliance	3

	<i>(continued)</i>		
_____	MKTG 1160	Professional Selling	3
_____	MKTG 1190	Integrated Marketing Communications	3
_____	MKTG 2090	Marketing Research	3
	<i>Marketing Electives (6 credits from the list below)</i>		
_____	MKTG 2000	Global Marketing	3
_____	MKTG 2290	Marketing Internship/Practicum	3
_____	MKTG 2300	Marketing Management	3
	<i>Occupational Electives (3 credits from the list below)</i>		
_____	BUSN 1300	Introduction to Business	3
_____	BUSN 2170	Web Page Design	2
_____	MKTG 1270	Visual Merchandising	3
_____	MKTG 2010	Small Business Management	3

**-and-**

**Choose one of the following specializations**

	<i>Specific Occupational Courses (Entrepreneurship Specialization – 12 credits)</i>		
_____	MKTG 1210	Services Marketing	3
	<i>-or-</i>		
_____	MKTG 2070	Buying and Merchandising	(3)
_____	MKTG 2010	Small Business Management	3
_____	MKTG 2210	Entrepreneurship	6
	<i>Specific Occupational Courses (E-Business Specialization – 11 credits)</i>		
_____	MKTG 1210	Services Marketing	3
	<i>-or-</i>		
_____	MKTG 2070	Buying and Merchandising	(3)
_____	BUSN 2170	Web Page Design	2
_____	MKTG 2210	Entrepreneurship	6
	<i>Specific Occupational Courses (Sports Marketing – 12 credits)</i>		
_____	MKTG 1280	Introduction to Sports and Recreation Management	3
_____	MKTG 2080	Regulations and Compliance in Sports	3
_____	MKTG 2180	Principles of Sports Marketing	3
_____	MKTG 2280	Sports Management	3

*(Listing continued on next page.)*

<i>Specific Occupational Courses (Social Media Marketing – 12 credits)</i>			
_____	MKTG 1370	Consumer Behavior	3
_____	MKTG 2500	Exploring Social Media	3
_____	MKTG 2550	Analyzing Social Media	3
_____	MKTG xxxx	Marketing Elective	3

## Marketing Management Diploma (MMI2)

The Marketing Management diploma program is designed to prepare students for employment in a variety of positions in today's marketing and management fields. 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 area of marketing.

### Career Opportunities

Graduates may find employment as display managers, buyers, advertising managers, retail store managers, tellers, apparel trimmings sales representatives, fashion accessories salespersons, general merchandise salespersons, merchandise displayers, department managers, or many other marketing related jobs. Any of the above career opportunities may also provide graduates experience to assist in opening their own businesses.

### Credit Required for Graduation: Minimum of 42 credit hours

	Program Course	Credits
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
	-or-	
_____	PSYC 1010 Basic Psychology	(3)
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1011 Business Math	3
	-or-	
_____	MATH 1012 Foundations of Mathematics	(3)
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	MKTG 1100 Principles of Marketing	3
_____	MKTG 1130 Business Regulations and Compliance	3
_____	MKTG 1160 Professional Selling	3
_____	MKTG 1190 Integrated Marketing Communications	3
_____	MKTG 2090 Marketing Research	3
_____	MKTG 2290 Marketing Internship/Practicum	3
	-or-	
_____	MKTG 2300 Marketing Management	(3)
	<i>Occupational Electives (3 credits from the list below)</i>	
_____	BUSN 1300 Introduction to Business	3
_____	BUSN 2170 Web Page Design	2
_____	MKTG 1270 Visual Merchandising	3
_____	MKTG 2010 Small Business Management	3
	<i>(continued on next page)</i>	

-and-

**Choose one of the following specializations**

<i>Specific Occupational Courses (Entrepreneurship Specialization – 11 credits)</i>			
_____	MKTG 1210	Services Marketing	3
-or-			
_____	MKTG 2070	Buying and Merchandising	(3)
_____	MKTG 2010	Small Business Management	3
_____	MKTG 2210	Entrepreneurship	6
<i>Specific Occupational Courses (E-Business Specialization – 11 credits)</i>			
_____	BUSN 2170	Web Page Design	2
_____	MKTG 1210	Services Marketing	3
-or-			
_____	MKTG 2070	Buying and Merchandising	(3)
_____	MKTG 2210	Entrepreneurship	6
<i>Specific Occupational Courses (Sports Marketing – 12 credits)</i>			
_____	MKTG 1280	Introduction to Sports and Recreation	3
_____	MKTG 2080	Regulations and Compliance in Sports	3
_____	MKTG 2180	Principles of Sports Marketing	3
_____	MKTG 2280	Sports Management	3
<i>Specific Occupational Courses (Social Media Marketing – 12 credits)</i>			
_____	MKTG 1370	Consumer Behavior	3
_____	MKTG 2500	Exploring Social Media	3
_____	MKTG 2550	Analyzing Social Media	3
_____	MKTG xxxx	Marketing Elective	3

## Small Business Marketing Manager Certificate (SB41)

The Small Business Marketing Manager certificate program prepares individuals to develop and manage independent small businesses. Included are courses in marketing, management, selling, promotion, and business regulations.

### **Career Opportunities**

*Graduates may form and manage their own new enterprises in a wide variety of business sectors.*

**Credit Required for Completion: Minimum of 15 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	MKTG 1100 Principles of Marketing	3
_____	MKTG 1130 Business Regulations and Compliance	3
_____	MKTG 1160 Professional Selling	3
_____	MKTG 1190 Integrated Marketing Communications	3
_____	MKTG 2010 Small Business Management	3



# School of Health Sciences

## **Clinical Laboratory Technology**

Clinical Laboratory Technology AAS Degree (CLT3)  
Phlebotomy Technician Certificate (PT21)

## **Dental Assisting**

Dental Assisting Advanced Certificate (AD21)  
Dental Assisting Basic Certificate (BDA1)

## **Dental Hygiene**

Dental Hygiene AAS Degree (DH13)

## **Electrocardiography Technology**

Electrocardiography Technology Certificate (ET81)

## **Emergency Medical Services**

Advanced Emergency Medical Technician Certificate (EMH1)  
Emergency Medical Technician Certificate (EMJ1)

## **Fire Science Technology**

Fire Science Technology AAS Degree (FS13)  
Fire Science Technology Diploma (FST2)

## **Health Services**

Health Information Management Technology Degree (HI13)  
Healthcare Assistant Certificate (HA21)  
Healthcare Science Certificate (HS21)

## **Medical Assisting**

Medical Assisting Diploma (MA22)  
Medical Coding Certificate (MC41)

## **Pharmacy Technology**

Pharmacy Assistant Certificate (PB71)

## **Radiologic Technology**

Radiologic Technology AAS Degree (RT23)  
Computed Tomography Specialist Certificate (CT91)  
Mammography Certificate (MA11)

## **Surgical Technology**

Surgical Technology Diploma (ST12)

# Clinical Laboratory Technology

## Clinical Laboratory Technology AAS Degree (CLT3)

Clinical Laboratory Technology associate degree program prepares students to perform clinical laboratory procedures under the supervision of a qualified pathologist and/or clinical laboratory scientist. Classroom training is integrated with clinical experiences under the medical direction of cooperating hospitals. Graduation from this program allows students to take a national certification examination, which is necessary for clinical employment. The Clinical Laboratory Technology program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences, 5600 N. River Road, Suite 720, Rosemont, IL 60018; 773.714.8880; www.nacls.org.

### **Career Opportunities**

*Graduates are most often employed in hospital laboratories, reference laboratories, government and private research laboratories, physicians' offices and clinics, crime labs, home health care agencies, safety and health research laboratories, and as sales representatives for laboratory equipment and supplies.*

### **Competitive Selection Process**

#### **Clinical Laboratory Technology Preparatory/Core Courses**

The annual competitive selection deadline is February 1. To be eligible for the Clinical Laboratory Technology program selection, the student must complete the following requirements by the applicable deadline.

The student must complete the following courses with a minimum grade of C: BIOL 2113/BIOL 2113L, BIOL 2114/BIOL 2114L, CHEM 1211/CHEM 1211L or CHEM 1151/CHEM 1151L, ENGL 1101, and MATH 1101 or MATH 1111.

### **Clinical Laboratory Technology Competitive Selection**

**Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method. Additional information is also available on the CLT program web page.**

Students ranked with the highest overall scores for required course completion will be selected for program admission.

### **Clinical Laboratory Technology Occupational and Clinical Courses**

Students selected for admission to the Clinical Laboratory Technology program will complete the occupational and clinical program courses in a prescribed sequence as a cohort. A class is admitted each summer semester.

**Credit Required for Graduation: Minimum of 73 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Clinical Laboratory Technology associate degree program requires an additional 4 credit hours in Area III, for a total of 19 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

*General Core Courses*

- \_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)
- \_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)
- \_\_\_\_\_ Area III requirements (minimum 7 hours; must include MATH 1101 **or** MATH 1111, CHEM 1211/CHEM 1211L **or** CHEM 1151/CHEM 1151L)
- \_\_\_\_\_ Area IV requirements (minimum 3 hours)
- \_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Course</b>	<b>Credits</b>
<i>Occupational Courses</i>	
_____ BIOL 2113      Anatomy and Physiology I	3
_____ BIOL 2113L      Anatomy and Physiology Lab I	1
_____ BIOL 2114      Anatomy and Physiology II	3
_____ BIOL 2114L      Anatomy and Physiology Lab II	1
_____ CLBT 1010      Introduction to Clinical Laboratory Technology	2
_____ CLBT 1030      Urinalysis/Body Fluids	2
_____ CLBT 1040      Hematology/Coagulation	5
_____ CLBT 1050      Serology/Immunology	3
_____ CLBT 1060      Immunohematology	4
_____ CLBT 1070      Clinical Chemistry	4
_____ CLBT 1080      Microbiology	5
_____ CLBT 2090      Clinical Urinalysis, Serology and Preanalytic Specimen Process Practicum	3
_____ CLBT 2100      Clinical Immunohematology Practicum	4
_____ CLBT 2110      Clinical Hematology/Coagulation Practicum	4
_____ CLBT 2120      Clinical Microbiology Practicum	4
_____ CLBT 2130      Clinical Chemistry Practicum	4
_____ CLBT 2200      CLT Certification Review	2

# Phlebotomy Technician Certificate (PT21)

The Phlebotomy Technician certificate program educates students to collect blood and process blood and body fluids. Phlebotomy technicians typically work in concert with clinical laboratory personnel and other healthcare providers in hospitals or other healthcare facilities. Topics covered include human anatomy, anatomical terminology, venipuncture, and clinical practice.

## **Career Opportunities**

*Graduates may find employment as phlebotomy technicians in various medical facilities or related areas.*

## **Credit Required for Completion: Minimum of 24 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1040	Introduction to Health Care	3
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	COMP 1000	Introduction to Computers	3
_____	ENGL 1010	Fundamentals of English I	3
_____	PHLT 1030	Introduction to Venipuncture	3
_____	PHLT 1050	Clinical Practice	5

# Dental Assisting

## Advanced Dental Assisting Certificate (AD21)

The Advanced Dental Assisting certificate program prepares students for employment in a variety of positions in today's dental offices. The program provides learning opportunities that 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 in the area of dental assisting.

### **Career Opportunities**

*Graduates may be employed as chairside assistants in general dentistry, pediatric dentistry, orthodontics, endodontics, oral surgery, periodontics, and prosthodontics. Other career opportunities include insurance coordinators, infection control coordinators, appointment control coordinators, dental office assistants, and dental hygiene assistants. Graduates of the Advanced Dental Assisting Certificate may be invited to participate in the Georgia Dental Association's Expanded Duties Certificate Courses IV, V, and VI based on attendance and academic performance.*

**Credit Required for Completion: Minimum of 14 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	DENA 1350     Dental Assisting II: Dental Specialties and EFDA Skills	7
_____	DENA 1390     Dental Radiology	4
_____	DENA 1400     Dental Practice Management	2
_____	DENA 1460     Dental Practicum I	1

## Basic Dental Assisting Certificate (BDA I)

The Basic Dental Assisting certificate program prepares students for employment in a variety of positions in today's dental offices. The program provides learning opportunities that introduce academic and occupational knowledge, skills, and attitudes required for job acquisition and retention.

### **Career Opportunities**

*Graduates may be employed as chairside assistants in general dentistry and pediatric dentistry. Other career opportunities include infection control coordinators and dental hygiene assistants.*

**Credit Required for Completion: Minimum of 14 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	DENA 1050	Microbiology and Infection Control	3
_____	DENA 1080	Dental Anatomy	5
_____	DENA 1340	Dental Assisting I: General Chairside	6

# Dental Hygiene

## Dental Hygiene AAS Degree (DH13)

The Dental Hygiene associate degree program is a sequence of courses that prepares students for positions in the dental profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. Registered dental hygienists work in a variety of professional settings. The public is most familiar with dental hygienists in the private dental office, where they perform numerous critical services designed to detect and prevent diseases of the mouth. These include oral prophylaxis; examining the head, neck, and oral areas for signs of disease; educating patients about oral hygiene; taking or developing radiographs; and applying fluoride or sealants. In this setting, registered dental hygienists play a vital role in protecting the oral health of the American public. The Dental Hygiene Program is accredited by the Commission on Dental Accreditation of the American Dental Association, 211 East Chicago Ave., Chicago, IL 60611-2678; 312.440.7494; www.ada.org. This accreditation enables graduates to take any regional or state board in the nation.

### **Career Opportunities**

*Most dental hygienists work as part of a dental team in private dental practices. Other employment opportunities exist in Health Management Organizations, hospitals, military bases, and community clinics. Further career choices include working for dental supply companies, dental product or pharmaceutical companies, various government agencies or insurance companies. Many dental hygienists continue their education and complete advanced degrees that will allow them to teach dental hygiene or dental assisting, or become dental practice consultants, researchers, editors, dentists or professional writers.*

### **Transfer of Credit for Dental Hygiene**

Due to the nature of dental hygiene, the admissions requirements and transfer of credit policy for the program require testing a student's level of knowledge when a transfer of any dental hygiene course is considered. According to West Georgia Technical College's policy, if a DHYG course request for transfer credit is received for a course completed with a grade of C or above from another accredited college, a student must take an equivalency examination and in some situations, such as Dental Materials and Radiology, a laboratory competency examination. The didactic and laboratory competency grade must be an 80 or above to consider the transfer of credit. The time limitations for considering these credits are the same as for science courses; the course must have been within the previous seven years. Clinical and preclinical courses will not be considered for transfer due to the uniqueness of each dental hygiene program.

### **Competitive Selection Process**

#### **Dental Hygiene Preparatory/Core Courses**

The annual deadline is June 1. To be eligible for the Dental Hygiene program selection, the student must complete the following requirements by the applicable deadline. The student:

- Must complete the following courses with a minimum grade of C: BIOL 2113/BIOL 2113L, BIOL 2114/BIOL 2114L, ENGL 1101, and MATH 1101 or MATH 1111.
- Must complete CHEM 1211/CHEM with a minimum grade of C prior to entering the program, but the grade for this course is not calculated in the GPA for the competitive selection process. The student must complete BIOL 2117/BIOL2117L with a minimum grade of C prior to entering the program or during the first semester of the Dental Hygiene program.

### Dental Hygiene Competitive Selection

In addition to completion of the core courses listed above, the Dental Hygiene program requires students in competitive selection to complete the Psychological Service Bureau (PSB) Health Occupations Aptitude Examination, Edition 3. **Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method, including bonus points. Additional information is also available on the DH program web page.**

Students ranked with the highest overall scores for required course completion and PSM exam will be selected for program admission.

### Dental Hygiene Occupational and Clinical Courses

Students selected for admission to the Dental Hygiene program will complete the occupational and clinical program courses in a prescribed sequence as a cohort. A class is admitted each fall semester.

### Credit Required for Graduation: Minimum of 83 credit hours

#### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. **The Dental Hygiene associate degree program requires an additional 3 credit hours in Area I, an additional 3 credit hours in Area II, and an additional 4 hours in Area III, for a total of 22 credit hours.** All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### General Core Courses

\_\_\_\_\_ Area I requirements (minimum 6 hours; must include ENGL 1101 and SPCH 1101)

\_\_\_\_\_ Area II requirements (minimum 6 hours; must include PSYC 1101 and SOCI 1101)

\_\_\_\_\_ Area III requirements (minimum 7 hours; must include MATH 1101 or MATH 1111 and CHEM 1211/  
CHEM 1211L)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	BIOL 2113      Anatomy and Physiology I	3
_____	BIOL 2113L      Anatomy and Physiology Lab I	1
_____	BIOL 2114      Anatomy and Physiology II	3
_____	BIOL 2114L      Anatomy and Physiology Lab II	1
_____	BIOL 2117      Introductory Microbiology	3
_____	BIOL 2117L      Introductory Microbiology Lab	1
_____	DHYG 1000      Tooth Anatomy and Root Morphology	2
_____	DHYG 1010      Oral Embryology and Histology	1



	<i>(continued)</i>		
_____	DHYG 1020	Head and Neck Anatomy	2
_____	DHYG 1030	Dental Materials	2
_____	DHYG 1040	Preclinical Dental Hygiene Lecture	2
_____	DHYG 1050	Preclinical Dental Hygiene Lab	2
_____	DHYG 1070	Radiology Lecture	2
_____	DHYG 1090	Radiology Lab	1
_____	DHYG 1110	Clinical Dental Hygiene I Lecture	2
_____	DHYG 1111	Clinical Dental Hygiene I Lab	3
_____	DHYG 1206	Pharmacology and Pain Control	3
_____	DHYG 2010	Clinical Dental Hygiene II Lecture	2
_____	DHYG 2020	Clinical Dental Hygiene II Lab	2
_____	DHYG 2050	General and Oral Pathology/Pathophysiology	3
_____	DHYG 2070	Community Dental Health	3
_____	DHYG 2080	Clinical Dental Hygiene III Lecture	2
_____	DHYG 2090	Clinical Dental Hygiene III Lab	4
_____	DHYG 2110	Biochemistry and Nutrition Fundamentals for the Dental Hygienist	2
_____	DHYG 2130	Clinical Dental Hygiene IV Lecture	2
_____	DHYG 2140	Clinical Dental Hygiene IV Lab	4
_____	DHYG 2200	Periodontology	3

# Emergency Medical Services

## Advanced Emergency Medical Technician Certificate (EMHI)

Successful completion of the Advanced Emergency Medical Technician certificate program allows the graduate to take the National Registry of Emergency Medical Technicians AEMT certification examination and apply for Georgia licensure as an AEMT.

### **Career Opportunities**

*Graduates may find employment with ambulance services, fire departments, volunteer rescue squads, or with companies that are training designated employees to provide emergency care.*

**Credit Required for Completion: Minimum of 10 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	EMSP 1510	Advanced Concepts for the AEMT	3
_____	EMSP 1520	Advanced Patient Care for the AEMT	3
_____	EMSP 1530	Clinical Applications for the AEMT	1
_____	EMSP 1540	Clinical and Practical Applications for the AEMT	3

# Emergency Medical Technician Certificate (EMJI)

Successful completion of the Emergency Medical Technician certificate program allows the graduate to take the National Registry of Emergency Medical Technicians EMT certification examination and apply for Georgia licensure as an EMT.

## **Career Opportunities**

*Graduates may find employment with ambulance services, fire departments, volunteer rescue squads, or with companies that are training designated employees to provide emergency care.*

## **Credit Required for Completion: Minimum of 16 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	EMSP 1110 Introduction to the EMT Profession	3
_____	EMSP 1120 EMT Assessment/Airway Management and Pharmacology	3
_____	EMSP 1130 Medical Emergencies for the EMT	3
_____	EMSP 1140 Special Patient Populations	3
_____	EMSP 1150 Shock and Trauma for the EMT	3
_____	EMSP 1160 Clinical and Practical Applications for the EMT	1

# Fire Science Technology

## Fire Science Technology AAS Degree (FSI3)

The Fire Science associate degree program is a sequence of courses designed to prepare fire service personnel at all levels to become better officers and leaders. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain and upgrade present knowledge and skills.

### **Career Opportunities**

*Graduates may find employment as firefighters, leaders, and officers in the fire service industry.*

### **Credit Required for Graduation: Minimum of 62 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

<b>Program Course</b>	<b>Credits</b>
<i>Occupational Courses</i>	
_____ COMP 1000      Introduction to Computers	3
_____ FRSC 1100      Introduction to the Fire Service	3
_____ FRSC 1110      Fire Administration – Supervision and Leadership	3
_____ FRSC 1121      Firefighting Strategy and Tactics	3
_____ FRSC 1132      Fire Service Instructor	4
_____ FRSC 1141      Hazardous Materials Operations	4
_____ FRSC 1151      Fire Prevention and Inspection	4
_____ FRSC 1161      Fire Service Safety and Loss Control	3
_____ FRSC 2100      Fire Administration Management	3

*(continued)*

_____	FRSC 2110	Fire Service Hydraulics	3
_____	FRSC 2120	Fire Protection Systems	3
_____	FRSC 2130	Fire Service Building Construction	3
_____	FRSC 2141	Incident Command	4
_____	FRSC 2170	Fire and Arson Investigation	4

## Fire Science Technology Diploma (FST2)

The Fire Science diploma program is a sequence of courses designed to prepare fire service personnel at all levels to become better officers and leaders. The program provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain and upgrade present knowledge and skills.

### **Career Opportunities**

*Graduates may find employment as firefighters, leaders, and officers in the fire service industry.*

### **Credit Required for Graduation: Minimum of 55 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	-or- PSYC 1010 Basic Psychology	(3)
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	FRSC 1100 Introduction to the Fire Science Service	3
_____	FRSC 1110 Fire Administration – Supervision and Leadership	3
_____	FRSC 1121 Firefighting Strategy and Tactics	3
_____	FRSC 1132 Fire Service Instructor	4
_____	FRSC 1141 Hazardous Materials Operations	4
_____	FRSC 1151 Fire Prevention and Inspection	4
_____	FRSC 1161 Fire Service Safety and Loss Control	3
_____	FRSC 2100 Fire Administration Management	3
_____	FRSC 2110 Fire Service Hydraulics	3
_____	FRSC 2120 Fire Protection Systems	3
_____	FRSC 2130 Fire Service Building Construction	3
_____	FRSC 2141 Incident Command	4
_____	FRSC 2170 Fire and Arson Investigation	4

# Health Services

## Health Information Management Technology Degree (HIT3)

The Health Information Management Technology associate degree program is a sequence of courses designed to provide students with the technical knowledge and skills necessary to process, maintain, analyze, and report health information data according to legal, accreditation, licensure, and certification standards for reimbursement, facility planning, marketing, risk management, utilization management, quality assessment, and research. Program graduates will develop leadership skills necessary to serve in a functional supervisory role in various components of the health information system. The Health Information Management Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 233 N. Michigan Ave, 21st Floor, Chicago, IL 60601-5800; Phone 312.233.1100; www.cahiim.org.

### Career Opportunities

Graduates are prepared for professional positions in hospitals, physicians' offices, state and federal health care agencies, clinics, managed care organizations, behavioral health facilities, consulting and law firms, ambulatory care facilities, information system vendors, insurance companies, and long-term care facilities.

### Credit Required for Graduation: Minimum of 66 credit hours

#### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### General Core Courses

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	ALHS 1090 Medical Terminology for Allied Health Sciences	2
_____	BIOL 2113 Anatomy and Physiology I	3
_____	BIOL 2113L Anatomy and Physiology Lab I	1
_____	BIOL 2114 Anatomy and Physiology II	3
_____	BIOL 2114L Anatomy and Physiology Lab II	1
_____	HIMT 1100 Introduction to Health Information Technology	3

	<i>(continued)</i>		
_____	HIMT 1150	Computer Applications in Healthcare	3
_____	HIMT 1200	Legal Aspects of Healthcare	3
_____	HIMT 1250	Health Record Content and Structure	2
_____	HIMT 1350	Pharmacotherapy	2
_____	HIMT 1400	Coding and Classification – ICD Basic	4
_____	HIMT 1410	Coding and Classification – ICD Advanced	3
_____	HIMT 2150	Healthcare Statistics	3
_____	HIMT 2200	Performance Improvement	3
_____	HIMT 2300	Healthcare Management	3
_____	HIMT 2400	Coding and Classification System – CPT/HCPCS	3
_____	HIMT 2410	Revenue Cycle Management	3
_____	HIMT 2460	Health Information Technology Practicum	3
_____	MAST 1120	Human Diseases	3



# Healthcare Assistant Certificate (HA21)

The Healthcare Assistant certificate program provides academic foundations at the diploma level in communications, mathematics, and human relations, as well as technical fundamentals. Program graduates are trained in the underlying fundamentals of healthcare delivery and are well prepared for employment and subsequent upward mobility.

**NOTE:** Students wishing to apply to a diploma level Health Services program after completing the Healthcare Assistant certificate must consult the appropriate section of this catalog that explains the specific requirements for the individual program. Not all courses listed for the Healthcare Assistant certificate will be required for diploma programs. Each program description outlines the preparatory/core course requirements and competitive selection process eligibility criteria explicit to that program.

### Career Opportunities

Graduates with any of these specializations may find employment in a variety of entry-level health care positions in nursing homes, home health agencies, medical offices, and hospitals.

**Credit Required for Completion: Minimum of 30 credit hours**

### Curriculum

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses (9 credits)</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	PSYC 1010      Basic Psychology	3
	<i>Occupational Courses (13 credits)</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1040      Introduction to Health Care	3
_____	ALHS 1090      Medical Terminology for Allied Health Sciences	2
_____	COMP 1000      Introduction to Computers	3
	<b>-and-</b>	
	<i>Specific Occupational Courses (Nurse Aide Specialization - 8 additional credits)</i>	
_____	ALHS 1060      Diet and Nutrition for Allied Health Sciences	2
_____	NAST 1100      Nurse Aide Fundamentals	6

\*A student who completes NAST 1100 is eligible to sit for the National Nurse Aide Assessment Program written/oral and skills competency exam and, if successful, may become a Certified Nurse Aide.

## Healthcare Science Certificate (HS21)

The Healthcare Science certificate program provides academic foundations at the degree level in communications, mathematics, and human relations, as well as technical fundamentals. Program graduates are trained in the underlying fundamentals of healthcare delivery and are well prepared for employment and subsequent upward mobility.

**NOTE:** Students wishing to apply to a degree-level Health Services program after completing the Healthcare Science certificate must consult the appropriate section of this catalog that explains the specific requirements for the individual program. Not all courses listed for the Healthcare Science certificate will be required for degree programs. Each program description outlines the preparatory/core course requirements and competitive selection process eligibility criteria explicit to that program.

### Career Opportunities

Graduates may find employment in a variety of entry-level health care positions in nursing homes, home health agencies, medical offices, and hospitals.

**Credit Required for Completion: Minimum of 37 credit hours**

### Curriculum

	Program Course	Credits
	<i>General Core Courses (12 credits)</i>	
_____	ENGL 1101      Composition and Rhetoric	3
_____	MATH 1101      Mathematical Modeling	3
_____	-or-	
_____	MATH 1111      College Algebra	(3)
_____	PSYC 1101      Introductory Psychology	3
_____	Area IV Requirement	3
	<i>Occupational Courses (12 credits from the list below)</i>	
_____	BIOL 1111      Biology I	3
_____	BIOL 1111L      Biology I Lab	1
_____	BIOL 1112      Biology II	3
_____	BIOL 1112L      Biology II Lab	1
_____	BIOL 2113      Anatomy and Physiology I	3
_____	BIOL 2113L      Anatomy and Physiology Lab I	1
_____	BIOL 2114      Anatomy and Physiology II	3
_____	BIOL 2114L      Anatomy and Physiology Lab II	1
_____	BIOL 2117      Introductory Microbiology	3
_____	BIOL 2117L      Introductory Microbiology Lab	1
_____	CHEM 1151      Survey of Inorganic Chemistry	3

	<i>(continued)</i>		
_____	CHEM 1151L	Survey of Inorganic Chemistry	1
_____	CHEM 1152	Survey of Organic Chemistry and Biochemistry	3
_____	CHEM 1152L	Survey of Organic Chemistry and Biochemistry Lab	1
_____	CHEM 1211	Chemistry I	3
_____	CHEM 1211L	Chemistry Lab I	1
_____	CHEM 1212	Chemistry II	3
_____	CHEM 1212L	Chemistry Lab II	1
_____	COMP 1000	Introduction to Computers	3
_____	PHYS 1111	Introductory Physics I	3
_____	PHYS 1111L	Introductory Physics Lab I	1
_____	PHYS 1112	Introductory Physics II	3
_____	PHYS 1112L	Introductory Physics Lab II	1

**-and-**

**The following specialization**

	<i>Specific Occupational Courses (Nurse Aide Specialization – 13 credits)</i>		
_____	ALHS 1040	Introduction to Health Care	3
_____	ALHS 1060	Diet and Nutrition for Allied Health Sciences	2
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	NAST 1100	Nurse Aide Fundamentals	6

\*A student who completes NAST 1100 is eligible to sit for the National Nurse Aide Assessment Program written/oral and skills competency exam and, if successful, may become a Certified Nurse Aide.

# Medical Assisting

## Medical Assisting Diploma (MA22)

The Medical Assisting diploma program prepares students for employment in a variety of positions in today's medical offices. The program provides learning opportunities which 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 area of medical assisting. The Medical Assisting program at West Georgia Technical College is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 25400 US Highway 19 North, Suite 158, Clearwater, FL 33763; phone 727.210.2350 ([www.caahep.org](http://www.caahep.org)), upon the recommendation of the Medical Assisting Education Review Board (MAERB), 20 N. Wacker Drive, Suite 1575, Chicago, IL 60606; phone 800.228.2262.

**NOTE:** According to the American Association of Medical Assistants (AAMA), a person may be denied the opportunity to take the certification examination and/or may be denied certification to practice Medical Assisting if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### **Career Opportunities**

*Graduates have many choices for future employment, including private physicians' offices, clinics, emergency care facilities, hospitals, and other health care organizations. Positions include medical assistant, transcriptionist, receptionist, insurance clerk, office manager, EKG technician, lab assistant (phlebotomist), and private duty care. The field is presently experiencing rapid expansion, and the trend is expected to continue in the foreseeable future.*

### **Competitive Selection Process**

#### **Medical Assisting Preparatory/Core courses**

The annual deadline is June 1 for the Murphy Campus and September 1 for the LaGrange Campus. To be eligible for the Medical Assisting program selection, the student must complete the following requirements by the applicable deadline.

The student must complete the following courses with a minimum grade of C – ALHS 1011, ALHS 1090, ENGL 1010, and MATH 1012.

#### **Medical Assisting Competitive Selection**

In addition to completion of the core courses listed above, the Medical Assisting program requires students in competitive selection to complete the Psychological Service Bureau (PSB) Health Occupations Aptitude Examination, Edition 3. **Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method. Additional information is also available on the MA program web page.**

Students ranked with the highest overall scores for required course completion and PSB exam will be selected for program admission.

#### **Medical Assisting Occupational and Clinical Courses**

Students selected for admission to the Medical Assisting program will complete the occupational and clinical program courses in a prescribed sequence as a cohort. A class is admitted each fall semester at the Murphy Campus and each spring semester at the LaGrange Campus.

**Credit Required for Graduation: Minimum of 54 credit hours**

**Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	PSYC 1010      Basic Psychology	3
	<i>Occupational Courses</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1090      Medical Terminology for Allied Health Sciences	2
_____	COMP 1000      Introduction to Computers	3
_____	MAST 1010      Legal and Ethical Concerns in the Medical Office	2
_____	MAST 1030      Pharmacology in the Medical Office	4
_____	MAST 1060      Medical Office Procedures	4
_____	MAST 1080      Medical Assisting Skills I	4
_____	MAST 1090      Medical Assisting Skills II	4
_____	MAST 1100      Medical Insurance Management	2
_____	MAST 1110      Administrative Practice Management	3
_____	MAST 1120      Human Diseases	3
_____	MAST 1170      Medical Assisting Externship	6
_____	MAST 1180      Medical Assisting Seminar	3

# Medical Coding Certificate (MC41)

The Medical Coding certificate program provides a basic short-term academic credential with potential for future program credit. The curriculum provides advanced training in coding skills for persons wanting to progress in their occupations or who want to prepare for full-time or part-time employment in the medical field. The Medical Coding Technical Certificate of Credit program provides basic training in anatomy and physiology, medical terminology, and medical procedural and physicians' procedural coding skills.

### Career Opportunities

Graduates of this program may find employment as medical coders in a medical office.

### Credit Required for Completion: Minimum of 24 credit hours

#### Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1090      Medical Terminology for Allied Health Sciences	2
_____	BUSN 1440      Document Production	4
	*Prerequisite is BUSN 1100 or ability to key at least 30 words per minute. See Admissions Office for testing.	
_____	ENGL 1010      Fundamentals of English I	3
_____	MAST 1120      Human Diseases	3
_____	MAST 1510      Medical Billing and Coding I	2
_____	MAST 1520      Medical Billing and Coding II	3
_____	MAST 1530      Medical Procedural Coding	2

# Pharmacy Technology

## Pharmacy Assistant Certificate (PB71)

The Pharmacy Assistant certificate program is designed to provide students with short term training to prepare them for entry-level employment in a variety of settings such as hospitals, retail pharmacies, nursing homes, medical clinics, etc. Students will receive didactic instruction and laboratory training in anatomy and physiology; fundamental concepts; and principles of receiving, storing and dispensing medication.

### **Career Opportunities**

*Graduates may find entry-level employment in hospitals, retail pharmacies, nursing homes, and medical clinics.*

### **Credit Required for Completion: Minimum of 35 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	COMP 1000	Introduction to Computers	3
_____	MATH 1012	Foundations of Mathematics	3
_____	PHAR 1000	Pharmaceutical Calculations	4
_____	PHAR 1010	Pharmacy Technology Fundamentals	5
_____	PHAR 1020	Principles of Dispensing Medicines	4
_____	PHAR 1040	Pharmacology	4
_____	PHAR 1055	Pharmacy Assistant Practicum	5

# Radiologic Technology

## Radiologic Technology AAS Degree (RT23)

The Radiologic Technology associate degree program is a sequence of courses that prepares students for positions in radiology departments and related businesses and industries. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of didactic and clinical instruction necessary for successful employment. Program graduates receive an associate of applied science degree, have the qualifications of a radiographer, and are eligible to sit for a national certification examination for radiographers.

The Radiologic Technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (20 N. Wacker Dr. Suite 2850, Chicago, IL 60606-3182; phone 312.704.5300; www.jrcert.org).

Students will have the opportunity to learn about all applications of diagnostic imaging, including routine radiography and fluoroscopy, trauma radiography, surgical and mobile radiography, pediatric radiography, as well as sub-specialty modalities such as computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, nuclear medicine, and radiation therapy.

In order to receive a wide variety of experience, students will receive clinical assignments in a number of clinical environments. Travel will be required to all clinical sites.

### **Career Opportunities**

*Graduates may obtain employment as radiographers in the diagnostic field of radiology.*

### **Competitive Selection Process**

#### **Radiologic Technology Preparatory/Core Courses**

The annual deadline is June 1. To be eligible for the Radiologic Technology program selection, the student must complete the following requirements by the applicable deadline. The student:

- Must complete the following courses with a minimum grade of C: BIOL 2113/BIOL 2113L, BIOL 2114/BIOL 2114L, ENGL 1101, MATH 1101 or MATH 1111, and PSYC 1101.
- Must complete ALHS 1090 with a minimum grade of C no later than the first semester of the program.

#### **Radiologic Technology Competitive Selection**

In addition to completion of the core courses listed above, the Radiologic Technology program requires students in competitive selection to complete the Psychological Service Bureau (PSB) Health Occupations Aptitude Examination, Edition 3. **Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method. Additional information is also available on the RT program web page.**

Students ranked with the highest overall scores for required course completion and PSB exam will be selected for program admission.



## Radiologic Technology Occupational and Clinical Courses

Students selected for admission to each Radiologic Technology program will complete the occupational and clinical program courses as a cohort. A class is admitted each fall semester.

**Credit Required for Graduation: Minimum of 77 credit hours**

### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### General Core Courses

- \_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)
- \_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)
- \_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)
- \_\_\_\_\_ Area IV requirements (minimum 3 hours)
- \_\_\_\_\_ Additional 3 hours from Area I, II, III or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ ALHS 1090	Medical Terminology for Allied Health Services	2
_____ BIOL 2113	Anatomy and Physiology I	3
_____ BIOL 2113L	Anatomy and Physiology Lab I	1
_____ BIOL 2114	Anatomy and Physiology II	3
_____ BIOL 2114L	Anatomy and Physiology Lab II	1
_____ RADT 1010	Introduction to Radiology	4
_____ RADT 1030	Radiographic Procedures I	3
_____ RADT 1060	Radiographic Procedures II	3
_____ RADT 1065	Radiologic Science	2
_____ RADT 1075	Radiologic Imaging	4
_____ RADT 1085	Radiologic Equipment	3
_____ RADT 1200	Principles of Radiation Biology and Protection	2
_____ RADT 1320	Clinical Radiography I	4
_____ RADT 1330	Clinical Radiography II	7

<i>(continued)</i>			
_____	RADT 2090	Radiographic Procedures III	2
_____	RADT 2260	Radiologic Technology Review	3
_____	RADT 2340	Clinical Radiography III	6
_____	RADT 2360	Clinical Radiography IV	9

## Computed Tomography Specialist Certificate (CT91)

The Computed Tomography (CT) certificate program provides educational opportunities to the post-graduate registered Radiologic Technologist, registered Radiation Therapist and registered Nuclear Medicine Technologist in good standing. It provides students with the knowledge needed to perform CT exams, and to sit for the Post-Primary Computed Tomography Certification Examination. The academic component is designed to meet competency requirements of the American Registry of Radiologic Technologists (ARRT) exam in Computed Tomography, as well as providing for continuing educational requirements.

**NOTE:** Additional admissions requirements apply to this program and must be completed by the June 1 application deadline. Seats are limited and students will be admitted on a space-available basis, in the order that they complete both the regular college application process and the following additional requirements.

- Applicant must be certified in radiography, nuclear medicine, or radiation therapy by the American Registry of Radiologic Technologists (ARRT). A copy of the front and back of the ARRT certification card must be submitted. Applicants who are recent graduates of an accredited radiologic technology program may request a waiver of this requirement but must submit a copy of their ARRT certification card prior to start of the program.
- Applicant must hold a current CPR Certification by the American Heart Association for Healthcare Providers. This certificate must remain current through the duration of the program. A copy of the front and back of the certification must be submitted with the Admissions Application. Online CPR certification or recertification will not be accepted.

### **Career Opportunities**

*Upon ARRT certification, graduates may find employment as computed tomography specialists in healthcare facilities.*

**Credit Required for Completion: Minimum of 21 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	RADT 2201	Introduction to Computed Tomography	2
_____	RADT 2210	Computed Tomography Physics and Instrumentation	5
_____	RADT 2220	Computed Tomography Procedures I	3
_____	RADT 2230	Computed Tomography Procedures II	3
_____	RADT 2250	Computed Tomography Clinical I	4
_____	RADT 2265	Computed Tomography Clinical II	4

# Mammography Certificate (MA I I)

The Mammography certificate program prepares postgraduate registered radiographers to sit for the national certification examination in mammography offered by the American Registry of Radiologic Technologists (ARRT). The Program meets MQSA initial education requirements for mammographers and continuing education.

**NOTE:** Additional admissions requirements apply to this program, including current ARRT certification. Please see the Admissions section of this catalog for further information on requirements that must be completed by the September 1 application deadline.

**NOTE:** Additional admissions requirements apply to this program and must be completed by the September 1 application deadline. Seats are limited and students will be admitted on a space-available basis, in the order that they complete both the regular college application process and the following additional requirements.

- Applicant must be certified in radiography, nuclear medicine, or radiation therapy by the American Registry of Radiologic Technologists (ARRT). A copy of the front and back of the ARRT certification card must be submitted. Applicants who are recent graduates of an accredited radiologic technology program may request a waiver of this requirement but must submit a copy of their ARRT certification card prior to start of the program.
- Applicant must hold a current CPR Certification by the American Heart Association for Healthcare Providers. This certificate must remain current through the duration of the program. A copy of the front and back of the certification must be submitted with the Admissions Application. Online CPR certification or recertification will not be accepted.

## Career Opportunities

*Upon ARRT certification, graduates may expect to obtain employment as certified mammographers in a hospital, clinic, or physician's office.*

## Credit Required for Completion: Minimum of 12 credit hours

### Curriculum

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	RADT 2520 Mammographic Anatomy, Physics, and Positioning	6
_____	RADT 2530 Clinical Mammography	6

# Surgical Technology

## Surgical Technology Diploma (ST12)

The Surgical Technology diploma program prepares students for employment in a variety of positions in the surgical field. The program provides learning opportunities that introduce, develop, and reinforce academic and technical 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 surgical technology.

**NOTE:** Once students have completed the selection process and have been accepted into the Surgical Technology program, they will be required to purchase all textbooks for the program during their first semester. (Information regarding costs can be found on the West Georgia Technical College website.)

### **Career Opportunities**

*Graduates may find employment as surgical technologists in hospitals, operating rooms, physicians' offices, emergency rooms, ambulatory/day surgery centers, central supply and management roles.*

### **Competitive Selection Process**

#### **Surgical Technology Preparatory/Core courses**

The annual competitive selection deadline is June 1. To be eligible for the Surgical Technology program selection, the student must complete the following requirements by the applicable deadline.

The student must complete the following courses with a minimum grade of C: ALHS 1011, ALHS 1090, ENGL 1010, MATH 1012, and PSYC 1010.

### **Surgical Technology Competitive Selection**

In addition to completion of the core courses listed above, the Surgical Technology program requires students in competitive selection to complete the Psychological Service Bureau (PSB) Health Occupations Aptitude Examination, Edition 3. **Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method. Additional information is also available on the ST program web page.**

Students ranked with the highest overall scores for required course completion and PSB Exam will be selected for program admission.

### **Surgical Technology Occupational and Clinical Courses**

Students selected for admission to the Surgical Technology program will complete the occupational and clinical program courses in a prescribed sequence as a cohort. A class is admitted beginning each fall semester.

**Credit Required for Graduation: Minimum of 57 credit hours**

## Curriculum

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	PSYC 1010      Basic Psychology	3
	<i>Occupational Courses</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1090      Medical Terminology for Allied Health Sciences	2
_____	SURG 1010      Introduction to Surgical Technology	8
_____	SURG 1020      Principles of Surgical Technology	7
_____	SURG 1080      Surgical Microbiology	2
_____	SURG 1100      Surgical Pharmacology	2
_____	SURG 2030      Surgical Procedures I	4
_____	SURG 2040      Surgical Procedures II	4
_____	SURG 2110      Surgical Technology Clinical I	3
_____	SURG 2120      Surgical Technology Clinical II	3
_____	SURG 2130      Surgical Technology Clinical III	3
_____	SURG 2140      Surgical Technology Clinical IV	3
_____	SURG 2240      Seminar in Surgical Technology	2

# School of Nursing

## **Practical Nursing and Related Programs**

Practical Nursing Diploma (PN12)

Nurse Aide Certificate (CN21)

Patient Care Assistant Certificate (PC21)

## **Registered Nursing**

Registered Nursing - Associate Degree in Nursing (NU43)

# Practical Nursing

## Practical Nursing Diploma (PNI2)

The Practical Nursing diploma program is designed to prepare students to write the NCLEX-PN for licensure as practical nurses. The program prepares graduates to give competent nursing care. This is done through a selected number of academic and occupational courses providing a variety of techniques and materials necessary to assist the student in acquiring the needed knowledge and skills to give competent care. A variety of clinical experiences is planned so that theory and practice are integrated under the guidance of the clinical instructor.

A student must complete the entire program sequentially and pass the National Council Licensure Examination (NCLEX) to become licensed. According to the Georgia Board of LPN rules, as well as other state boards of nursing, a person may be denied the opportunity to take the licensure examination and/or may be denied licensure if the person has been convicted of a felony or any crime violating federal or state controlled substance laws or other grounds as specified by law.

### **Career Opportunities**

*Graduates may find employment as licensed practical nurses in hospitals, physicians' offices, long-term care, rehabilitation therapy, clinics, and HMOs, or in related employment.*

### **Competitive Selection Process**

#### **Practical Nursing Preparatory/Core Courses**

The Coweta Campus will admit once a year in the fall semester. The Coweta Campus competitive selection deadline will be June 1. The LaGrange Campus will admit once a year in the spring semester. The LaGrange Campus competitive selection deadline will be September 1. The Murphy Campus will admit once a year in the summer semester. The Murphy Campus competitive selection deadline will be February 1. To be eligible for Practical Nursing program selection, the student must complete the following requirements by the applicable deadline.

The student must complete the following courses with a minimum grade of C: ALHS 1011, ALHS 1060, ENGL 1010, MATH 1012, and PSYC 1010.

#### **Practical Nursing Competitive Selection**

In addition to completion of the core courses listed above, the Practical Nursing program requires students in competitive selection to complete the Psychological Service Bureau (PSB) Health Occupations Aptitude Examination, Edition 3. **Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method. Additional information is also available on the PN program web page.**

Students ranked with the highest overall scores for required course completion and PSB Exam will be selected for program admission.

#### **Practical Nursing Occupational and Clinical Courses**

Students selected for admission to the Practical Nursing program will complete the occupational and clinical program courses in a prescribed sequence as a cohort.



**Credit Required for Graduation: Minimum of 57 credit hours**

**Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	PSYC 1010      Basic Psychology	3
	<i>Occupational Courses</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1060      Diet and Nutrition for Allied Health Sciences	2
_____	PNSG 2010      Introduction to Pharmacology and Clinical Calculations	2
_____	PNSG 2030      Nursing Fundamentals	6
_____	PNSG 2035      Nursing Fundamentals Clinical	2
_____	PNSG 2210      Medical-Surgical Nursing I	4
_____	PNSG 2220      Medical-Surgical Nursing II	4
_____	PNSG 2230      Medical-Surgical Nursing III	4
_____	PNSG 2240      Medical-Surgical Nursing IV	4
_____	PNSG 2250      Maternity Nursing	3
_____	PNSG 2255      Maternity Nursing Clinical	1
_____	PNSG 2310      Medical-Surgical Nursing Clinical I	2
_____	PNSG 2320      Medical-Surgical Nursing Clinical II	2
_____	PNSG 2330      Medical-Surgical Nursing Clinical III	2
_____	PNSG 2340      Medical-Surgical Nursing Clinical IV	2
_____	PNSG 2410      Nursing Leadership	1
_____	PNSG 2415      Nursing Leadership Clinical	2

## Nurse Aide Certificate (CN21)

The Nurse Aide certificate program prepares students with classroom training and practice as well as the clinical experiences necessary to care for patients in various settings including general medical and surgical hospitals, nursing care facilities, community care facilities for the elderly, and home health care services. Students who successfully complete the Nurse Aide Technical Certificate of Credit may be eligible to sit for the National Nurse Aide Assessment program (NNAAP), which determines competency to become enrolled in the State nurse aide registry.

### **Career Opportunities**

*Graduates may find employment as nurse aides in hospitals, nursing care facilities, home health care services, and community care.*

### **Credit Required for Completion: Minimum of 13 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	ALHS 1040 Introduction to Health Care	3
_____	ALHS 1060 Diet and Nutrition for Allied Health Sciences	2
_____	ALHS 1090 Medical Terminology for Allied Health Sciences	2
_____	NAST 1100 Nurse Aide Fundamentals	6

\*A student who completes NAST 1100 is eligible to sit for the National Nurse Aide Assessment Program written/oral and skills competency exam and, if successful, may become a Certified Nurse Aide.

## Patient Care Assistant Certificate (PC21)

The Patient Care Assistant certificate program prepares students with rigorous classroom training and practice as well as the clinical experiences to perform a full range of patient care duties or services under nursing or medical direction. This includes taking vital signs, obtaining lab specimens, assisting with activities of daily living, observing and charting patient information, and reporting appropriate information to supervisors. It may also include providing various outreach services to clients within the community. Students who successfully complete the Patient Care Assistant Technical Certificate of Credit may be eligible to sit for the National Nurse Aide Assessment program (NNAAP), which determines competency to become enrolled in the State nurse aide registry.

### **Career Opportunities**

*Graduates may find entry-level employment as patient care assistants in hospitals, nursing care facilities, home health care services, and community care.*

### **Credit Required for Completion: 23 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	ALHS 1011      Structure and Function of the Human Body	5
_____	ALHS 1040      Introduction to Health Care	3
_____	ALHS 1060      Diet and Nutrition for Allied Health Sciences	2
_____	ALHS 1090      Medical Terminology for Allied Health Sciences	2
_____	COMP 1000      Introduction to Computers	3
_____	EMPL 1000      Interpersonal Relations and Professional Development	2
_____	NAST 1100      Nurse Aide Fundamentals	6

\*A student who completes NAST 1100 is eligible to sit for the National Nurse Aide Assessment Program written/oral and skills competency exam and, if successful, may become a Certified Nurse Aide.

# Registered Nursing

## Associate Degree in Nursing (NU43)

The Registered Nursing (RN) associate degree program is designed to provide nursing courses that when successfully completed award graduates an Associate Degree in Nursing (ADN). Graduates are then eligible to apply to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Upon successful completion of the NCLEX-RN and licensure by the Georgia Board of Nursing, graduates are employable as registered nurses. The Nursing program is approved by the Georgia Board of Nursing, 237 Coliseum Drive, Macon, Georgia 31217-3858; phone 478.207.1640. The Nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 500, Atlanta, GA 30326; phone 404.975.5000.

**NOTE:** In 2010, the Institute of Medicine prepared a report on the future of nursing. One of the recommendations from the report is to increase the proportion of baccalaureate nurses to 80% by 2020. Graduates of associate degree programs are encouraged to enter a baccalaureate program within five years of graduation.

It is the position of the Organization for Associate Degree Nursing (OADN) (2013), in collaboration with other national nursing organizations, to support opportunities for academic progression. The ADN faculty at West Georgia Technical College are dedicated to providing our students and graduates every opportunity for academic progression through our Baccalaureate Bound initiative. We are committed to working with nursing and education leaders within our state to prepare a well-educated and diverse nursing workforce.

### **Career Opportunities**

*Graduates may find opportunities in a wide variety of settings, including, but not limited to, acute care in hospitals and long term care facilities, outpatient clinics, physicians' offices, home health care agencies, private or governmental industries, schools, and hospice programs.*

### **Competitive Selection Process**

#### **Registered Nursing Preparatory/Core Course**

The Murphy Campus will admit once a year in the fall semester. The Murphy Campus competitive selection deadline will be June 1. The Lagrange Campus will admit once a year in the spring semester. The Lagrange Campus competitive selection deadline will be September 1. The Coweta Campus will admit once a year in the summer semester. The Coweta Campus competitive selection deadline will be February 1. To be eligible for the Registered Nursing program selection, the student must complete the following requirements by the applicable deadline. The student:

- Must complete the following courses with a minimum grade of C: BIOL 2113/BIOL 2113L, BIOL 2114/BIOL 2114L, ENGL 1101, MATH 1111, and PSYC 1101.
- Must complete BIOL 2117/BIOL 2117L with a minimum grade of C prior to entry into the program, but grades for these two courses are not calculated in the GPA for the competitive selection process.

#### **Registered Nursing Competitive Selection**

In addition to completion of the core courses listed above, the Registered Nursing program requires students in competitive selection to complete the Test of Essential Academic Skills (TEAS) Exam.

**Please refer to the Admissions section of this catalog for details of the Competitive Selection Process applicant requirements and scoring method, including bonus points. Additional information is also available on the RN program web page.**

Students ranked with the highest overall scores for required course completion and TEAS exam will be selected for program admission.

### **Registered Nursing Occupational and Clinical Courses**

Students selected for admission to the Registered Nursing program will complete the occupational and clinical program courses in a prescribed sequence as a cohort. One nursing course is taken each semester for a total of six consecutive semesters.

### **Credit Required for Graduation: Minimum of 70 credit hours**

#### **Curriculum**

The Associate Degree in Nursing program requires a minimum of 15 credit hours\*\* of general education courses as specified below (**all course prerequisites must be met**):

- General Core Courses*
- \_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)
- \_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)
- \_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)
- \_\_\_\_\_ Area IV requirements (minimum 3 hours)
- \_\_\_\_\_ Additional 3 hours from Area I, II, III or IV

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ BIOL 2113	Anatomy and Physiology I	3
_____ BIOL 2113L	Anatomy and Physiology Lab I	1
_____ BIOL 2114	Anatomy and Physiology II	3
_____ BIOL 2114L	Anatomy and Physiology Lab II	1
_____ BIOL 2117	Introductory Microbiology	3
_____ BIOL 2117L	Introductory Microbiology Lab	1
_____ PSYC 2103	Human Development	3
_____ RNSG 1710	Introduction to Nursing Practice	7
_____ RNSG 1720	Adult Health I	7
_____ RNSG 1730	Adult Health II	6
_____ RNSG 2710	Parent Child Nursing	7
_____ RNSG 2720	Adult Health III	7
_____ RNSG 2730	Transitions to Professional Nursing	6

# School of Trade and Technology

## **Air Conditioning Technology**

Air Conditioning Technology Diploma (ACT2)  
Air Conditioning Electrical Technician Certificate (ACK1)  
Air Conditioning Repair Specialist Certificate (ACY1)  
Air Conditioning Technician Assistant Certificate (AZ31)  
Heating & Air Conditioning Installation Technician Certificate (HAA1)

## **Automotive Technology**

Automotive Technology Diploma (AT14)  
Automotive Chassis Technician Certificate (ASG1)  
Automotive Climate Control Technician Certificate (AH21)  
Automotive Electrical/Electronic Systems Technician Certificate (AE41)  
Automotive Engine Performance Technician Certificate (AE51)  
Automotive Engine Repair Technician Certificate (AE61)  
Automotive Transmission/Transaxle Technician Specialist Certificate (AA71)

## **Commercial Truck Driving**

Commercial Truck Driving Certificate (CT61)

## **Diesel Equipment Technology**

Diesel Equipment Technology Diploma (DET4)  
Diesel Electrical/Electronic System Technician Certificate (DE11)  
Diesel Engine Service Technician Certificate (DE21)  
Heavy Diesel Service Technician Certificate (HD31)

## **Drafting Technology**

Drafting Technology Diploma (DT12)  
Advanced CAD Technician Certificate (AC51)  
CAD Operator Certificate (CP41)  
Drafter's Assistant Certificate (DA31)

## **Electrical Construction and Maintenance**

Electrical Systems Technology Diploma (ES12)  
Commercial Wiring Certificate (CW31)  
Energy Industry Fundamentals Certificate (E111)  
Photovoltaic Systems Installation and Repair Technician Certificate (PS11)  
Residential Wiring Technician Certificate (RW21)

## **Electronics and Telecommunications**

Electronics Technology AAS Degree (ET13)  
Electronics Technology Diploma (ET14)  
Basic Electronics Assembler Certificate (BE41)  
Electronics Technician Certificate (ET21)

## **Engineering Technology**

Engineering Technology AAS Degree (ET33)  
Manufacturing Technology Certificate (MT31)

## **Industrial Systems Technology**

Electrical Control Systems Diploma (EC22)  
Industrial Mechanical Systems Diploma (IMS2)  
Industrial Systems Technology Diploma (IST4)  
Electrical Maintenance Technician Certificate (EM81)  
Industrial Electrician Certificate (IE41)  
Industrial Systems Fundamentals Certificate (IS61)  
Industrial Systems Mechanic Certificate (IS71)  
Programmable Control Technician Certificate (PC81)

## **Machine Tool Technology**

CNC Technology Diploma (CT12)  
Machine Tool Technology Diploma (MTT2)  
Basic Machining Operator Certificate (BMO1)  
Basic Machinist Certificate (BM31)  
CNC Specialist Certificate (CS51)  
Lathe Operator Certificate (LP11)  
Mill Operator Certificate (MP11)

## **Precision Manufacturing and Maintenance**

Precision Manufacturing and Maintenance AAS Degree (PMA3)  
Precision Manufacturing and Maintenance Diploma (PMA2)  
Industrial Machining Technician Certificate (IM61)  
Industrial Maintenance Technician Certificate (IM31)  
Manufacturing Maintenance Technician Certificate (MM71)  
Manufacturing Production Assistant Certificate (MP31)  
Manufacturing Systems Technician Certificate (MD71)  
Mechanical Maintenance Specialist Certificate (MM51)  
MOWR Manufacturing Maintenance Technician Certificate (MMM1)  
MOWR Manufacturing Production Assistant Certificate (MMP1)

## **Welding and Joining Technology**

Welding and Joining Technology Diploma (WAJ2)  
Advanced Shielded Metal Arc Welder Certificate (OSM1)  
Basic Shielded Metal Arc Welder Certificate (FS31)  
Gas Metal Arc Welder Certificate (GM31)  
Gas Tungsten Arc Welder Certificate (GTA1)  
MOWR Basic Shielded Metal Arc Welder Certificate (MB31)  
MOWR Gas Metal Arc Welder Certificate (MGMI)  
MOWR Gas Tungsten Arc Welder Certificate (MGT1)  
Pipe Welder Certificate (PW11)

# Air Conditioning Technology

## Air Conditioning Technology Diploma (ACT2)

The Air Conditioning Technology diploma program is a sequence of courses that prepares students for careers in the 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.

### **Career Opportunities**

*Graduates may find employment as air conditioning technicians.*

**Credit Required for Graduation: Minimum of 51 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	AIRC 1005 Refrigeration Fundamentals	4
_____	AIRC 1010 Refrigeration Principles and Practices	4
_____	AIRC 1020 Refrigeration Systems Components	4
_____	AIRC 1030 HVACR Electrical Fundamentals	4
_____	AIRC 1040 HVACR Electrical Motors	4
_____	AIRC 1050 HVACR Electrical Components and Controls	4
_____	AIRC 1060 Air Conditioning Systems Application and Installation	4
_____	AIRC 1070 Gas Heat	4
_____	AIRC 1080 Heat Pumps and Related Systems	4
_____	AIRC 1090 Troubleshooting Air Conditioning Systems	4

## **Air Conditioning Electrical Technician Certificate (ACKI)**

The Air Conditioning Electrical Technician certificate program prepares students in the air conditioning area of study to acquire competencies in electricity related to installation, service, and maintenance of electrical systems.

### **Career Opportunities**

*Graduates may find employment as service technician helpers, in plant maintenance, or in sales.*

**Credit Required for Completion: Minimum of 12 credit hours**

### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ AIRC 1030	HVACR Electrical Fundamentals	4
_____ AIRC 1040	HVACR Electrical Motors	4
_____ AIRC 1050	HVACR Electrical Components and Controls	4



## Air Conditioning Repair Specialist Certificate (ACYI)

The Air Conditioning Repair Specialist certificate program prepares students for positions in the maintenance and repair of air conditioning systems. A combination of theory and practical application provides for the necessary skills to support industry requirements.

### **Career Opportunities**

*Graduates may find entry-level employment as air conditioning repair persons or in related occupations.*

**Credit Required for Completion: Minimum of 20 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	AIRC 1005      HVACR Refrigeration Fundamentals	4
_____	AIRC 1030      HVACR Electrical Fundamentals	4
_____	AIRC 1040      HVACR Electrical Motors	4
_____	AIRC 1070      Gas Heat	4
_____	AIRC 1080      Heat Pump and Related Systems	4

## **Air Conditioning Technician Assistant Certificate (AZ3 I)**

The Air Conditioning Technician Assistant certificate program prepares students to hold positions as technician assistants in the HVACR field.

### **Career Opportunities**

*Graduates may find entry-level employment as service technician helpers, in plant maintenance, or in sales.*

### **Credit Required for Completion: Minimum of 12 credit hours**

#### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ AIRC 1005	Refrigeration Fundamentals	4
_____ AIRC 1010	Refrigeration Principles and Practices	4
_____ AIRC 1020	Refrigeration Systems Components	4

# Heating & Air Conditioning Installation Technician Certificate (HAAI)

The Air Conditioning Technician Assistant certificate program prepares students in the installation of heating and air conditioning systems. Emphasis is placed on the theory and practical application skills necessary for successful employment.

## **Career Opportunities**

*Graduates may find entry-level employment as HVACR technicians, in plant maintenance, or in sales.*

**Credit Required for Completion: Minimum of 12 credit hours**

## **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ AIRC 1010	Refrigeration Principles and Practices	4
_____ AIRC 1030	HVACR Electrical Fundamentals	4
_____ AIRC 1060	Air Conditioning Systems Application and Installation	4

# Automotive Technology

## Automotive Technology Diploma (AT14)

The Automotive Technology diploma program is a sequence of courses designed to prepare students for careers in the automotive service and repair profession. Learning opportunities enable students to 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.

**NOTE:** Employers in this field look for people with strong communication and analytical skills. Technicians need good reading, mathematics, and computer skills to study technical manuals and to keep abreast of new technology and learn new service and repair procedures and specifications.

### **Career Opportunities**

Graduates may find employment as automotive technicians qualified in the following service areas: engine performance, suspension and steering, brakes, electrical/electronic systems, and heating/air conditioning.

### **Credit Required for Graduation: Minimum of 55 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000      Interpersonal Relations and Professional Development	2
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	AUTT 1010      Automotive Technology Introduction	2
_____	AUTT 1020      Automotive Electrical Systems	7
_____	AUTT 1030      Automotive Brake Systems	4
_____	AUTT 1040      Automotive Engine Performance	7
_____	AUTT 1050      Automotive Suspension and Steering Systems	4
_____	AUTT 1060      Automotive Climate Control Systems	5
_____	AUTT 2010      Automotive Engine Repair	6
_____	AUTT 2020      Automotive Manual Drive Train and Axles	4
_____	AUTT 2030      Automotive Automatic Transmissions and Transaxles	5
_____	COMP 1000      Introduction to Computers	3

## Automotive Chassis Technician Certificate (ASGI)

The Automotive Chassis Technician Specialist certificate program provides students with skills needed to enter the automotive industry as an entry level chassis technician. Topics covered include shop safety; basic electrical/electronic theory and diagnosis; chassis components and types; steering system components and service; alignment theory and procedures; and brake system operation, diagnosis, and repair.

### **Career Opportunities**

*Graduates may find employment as automotive front-end technician apprentices, technician's helpers, suspension maintenance technicians, or general brake services technicians.*

**Credit Required for Completion: Minimum of 17 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	AUTT 1010	Introduction to Automotive Technology	2
_____	AUTT 1020	Automotive Electrical Systems	7
_____	AUTT 1030	Automotive Brake Systems	4
_____	AUTT 1050	Automotive Suspension and Steering Systems	4

## Automotive Climate Control Technician Certificate (AH21)

The Automotive Climate Control Technician certificate program provides students with skills for entering the automotive service industry as an entry-level climate control technician. Topics covered include basic shop safety; electrical/electronic theory and diagnosis; and the theory, operation, diagnosis, and servicing of automotive climate control systems.

### **Career Opportunities**

*Graduates may be employed as automotive air conditioning service technicians.*

### **Credit Required for Completion: Minimum of 14 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	AUTT 1010	Automotive Technology Introduction	2
_____	AUTT 1020	Automotive Electrical Systems	7
_____	AUTT 1060	Automotive Climate Control Systems	5

# Automotive Electrical/Electronic Systems Technician Certificate (AE4I)

The Automotive Electrical/Electronic Systems Technician certificate program provides students with the knowledge and skills necessary to diagnose, service, and repair basic electrical/electronic automotive systems as an entry level technician. Topics covered include automotive shop safety, electrical theory and circuit diagnosis, automotive batteries, starting and charging systems, instrumentation, lighting, and various vehicle accessories.

## **Career Opportunities**

*Graduates may find employment as automotive electrical diagnostic apprentices, technician's helpers, general electrical electronic troubleshooting technicians, and vehicle maintenance technicians.*

**Credit Required for Completion: Minimum of 9 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	AUTT 1010     Automotive Technology Introduction	2
_____	AUTT 1020     Automotive Electrical Systems	7

# Automotive Engine Performance Technician Certificate (AE5 I)

The Automotive Engine Performance Technician certificate program introduces students to the knowledge and skills they will need as entry-level automotive engine performance technicians. Topics covered include shop safety; electrical/electronics diagnosis; and diagnosis and service of fuel, ignition, emission, and electronic engine controls.

## **Career Opportunities**

*Graduates may find employment as automotive tune up technician apprentices, technician's helpers, general tune up service technicians, and vehicle maintenance technicians.*

**Credit Required for Completion: Minimum of 16 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	AUTT 1010     Automotive Technology Introduction	2
_____	AUTT 1020     Automotive Electrical Systems	7
_____	AUTT 1040     Automotive Engine Performance	7



## Automotive Engine Repair Technician Certificate (AE61)

The Automotive Engine Repair Technician certificate program provides the student with entry-level automotive engine repair skills. Topics include basic shop safety, basic electrical/electronic diagnosis, principles of engine operation, basic engine diagnosis, and basic engine repair procedures.

### **Career Opportunities**

Graduates may find entry-level employment as technician apprentices or technician's helpers with automotive repair and maintenance shops, automobile dealers, or retailers and wholesalers of automotive parts, accessories, and supplies.

**Credit Required for Completion: Minimum of 15 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	AUTT 1010 Automotive Technology Introduction	2
_____	AUTT 1020 Automotive Electrical Systems	7
_____	AUTT 2010 Automotive Engine Repair	6

# Automotive Transmission/Transaxle Technician Specialist Certificate (AA71)

The Automotive Transmission/Transaxle Tech Specialist certificate program provides students with the skills to enter the automotive industry as an entry-level transmission, transaxle, and drive line technician. Topics covered include shop safety, basic electrical/electronic theory and diagnosis, manual transmission/transaxle operation and diagnosis, automatic transmission/transaxle operation and diagnosis, axles operation and diagnosis, differentials operation and diagnosis, and 4WD/AWD systems operation and diagnosis.

## Career Opportunities

Graduates may find employment as automotive transmission/transaxle tech specialists or in related occupations.

**Credit Required for Completion: Minimum of 18 credit hours**

## Curriculum

Program Course		Credits
<i>Occupational Courses</i>		
_____	AUTT 1010 Automotive Technology Introduction	2
_____	AUTT 1020 Automotive Electrical Systems	7
_____	AUTT 2020 Automotive Manual Drive Train Axles	4
_____	AUTT 2030 Automotive Automatic Transmission and Transaxles	5

# Commercial Truck Driving

## Commercial Truck Driving Certificate (CT61)

The Commercial Truck Driving certificate program provides basic training in the principles and skills of commercial truck operations. The program is based on the definition of a truck driver as one who operates a commercial motor vehicle of all different sizes and descriptions on all types of roads. At the completion of the program, the student is administered the Georgia CDL Skills Exam.

**NOTE:** Applicants must be 18 years of age by program admission date. After COMPASS scores (and learning support scores if needed) are complete, students should have all the necessary paperwork completed and ready to turn in on the first day of class.

Prospective students should be advised that the Federal Motor Carriers Safety Administration (FMCSA) regulates commercial driver licensing and requires a Department of Transportation (DOT) physical and drug test and a certified unopened Motor Vehicle Report prior to the issuance of a commercial drivers license (CDL) or learners permit, which is required prior to beginning in-the-truck training. Further, random drug testing is required during the course of the Commercial Truck Driving program (FMCSA Regulations 382.305 and 391, subpart E). Students are responsible for the cost of all drug screenings and MVR.

### **Career Opportunities**

*Graduates may seek employment as Commercial Truck Drivers or related employment. Applicants must be 18 years of age for employment as an intrastate driver and 21 years of age for employment as an interstate driver. Program graduates who are under the age of 21 may drive a commercial truck only in Georgia; therefore, Career Opportunities may be limited until graduates reach the age of 21.*

**Credit Required for Completion: Minimum of 9 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	CTDL 1010	Fundamentals of Commercial Driving	3
_____	CTDL 1020	Combination Vehicle Basic Operation and Range Work	2
_____	CTDL 1030	Combination Vehicle Advanced Operations	4
	-or		
_____	CTDL 1040	Commercial Driving Internship	(4)

# Diesel Equipment Technology

## Diesel Equipment Technology Diploma (DET4)

The Diesel Equipment Technology diploma program is a sequence of courses designed to prepare students for careers in the diesel equipment service and repair profession. Learning opportunities enable students to develop academic, technical and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of truck, heavy equipment, marine systems, or emergency power generator repair theory and practical application necessary for successful employment depending on the specialization area a student chooses to complete.

### **Career Opportunities**

*Graduates may find employment as entry-level diesel equipment technicians.*

### **Credit Required for Completion: Minimum of 47 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000      Interpersonal Relations and Professional Development	2
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000      Introduction to Computers	3
_____	DIET 1000      Introduction to Diesel Technology, Tools, and Safety	3
_____	DIET 1010      Diesel Electrical and Electronics Systems	7
_____	DIET 1020      Preventive Maintenance	5
_____	DIET 1030      Diesel Engines	6
_____	DIET 1040      Diesel Truck and Heavy Equipment HVAC Systems	3
	<b>-and-</b>	
	<b>The following specialization (12 credits)</b>	
	<i>Special Occupational Courses (Heavy Equipment Specialization)</i>	
_____	DIET 2001      Heavy Equipment Hydraulics	6
_____	DIET 2011      Off road Drivelines	6

# Diesel Electrical/Electronic System Technician Certificate (DEII)

The Diesel Electrical and Electronic Systems Technician certificate program prepares students for entry level employment performing repairs on heavy trucks or diesel equipment. The topics covered include diesel shop safety, tools and equipment, diesel electrical/electronic systems, and diesel engines and support systems.

### **Career Opportunities**

*Graduates may find entry-level employment as diesel electrical/electronic systems technicians with a variety of companies that support the nation's transportation and logistics infrastructure.*

**Credit Required for Completion: Minimum of 10 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	DIET 1000	Introduction to Diesel Technology, Tools, and Safety	3
_____	DIET 1010	Diesel Electrical and Electronic Systems	7

# Diesel Engine Service Technician Certificate (DE21)

The Diesel Engine Service Technician certificate program prepares students to inspect, repair, or overhaul buses, trucks, and other vehicles with diesel engines. The topics presented include diesel shop safety and tool use, basic electrical and electronics theory, starting and charging systems, and electronic controls and accessory systems.

### **Career Opportunities**

*Graduates may find entry-level employment as diesel engine service technician technicians with auto repair shops, fleet operations, or local government operations servicing diesel vehicles.*

**Credit Required for Completion: Minimum of 16 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	DIET 1000 Introduction to Diesel Technology, Tools, and Safety	3
_____	DIET 1010 Diesel Electrical and Electronic Systems	7
_____	DIET 1030 Diesel Engines	6

# Heavy Diesel Service Technician Certificate (HD31)

The Heavy Diesel Service Technician certificate program provides training in theory, diagnosis, and repair of basic systems on diesel engines and diesel equipment. Program instruction includes shop safety, shop equipment, diesel engines and fuel systems, electrical and electronic systems, off road power trains, and heavy equipment hydraulics.

**NOTE:** Employers in this field look for applicants who have mechanical aptitude and strong problem solving skills. Technicians constantly receive updated technical manuals and instructions outlining changes in techniques and standards for repair. It is essential that technicians be able to read, interpret, and comprehend service manuals in order to keep abreast of engineering changes.

## **Career Opportunities**

*Graduates may find employment as entry-level diesel service technicians.*

**Credit Required for Completion: Minimum of 31 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	DIET 1000 Introduction to Diesel Technology, Tools, and Safety	3
_____	DIET 1010 Diesel Electrical and Electronic Systems	7
_____	DIET 1030 Diesel Engines	6
_____	DIET 1040 Diesel Truck and Heavy Equipment HVAC Systems	3
_____	-or-	
_____	DIET 1050 Diesel Equipment Technology Internship	(4)
_____	DIET 2001 Heavy Equipment Hydraulics	6
_____	DIET 2011 Off Road Drivelines	6

# Drafting Technology

## Drafting Technology Diploma (DT12)

The Drafting Technology diploma program prepares students for employment in a variety of positions in the drafting field, such as drafter, CAD operator, or civil drafting technician based on the specialization area a student chooses to complete. The program provides learning opportunities which introduce, develop, and reinforce academic and technical knowledge, skills and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or retrain in drafting practices and software. The Drafting program curriculum is certified by the American Design Drafting Association, 105 East Main Street, Newbern, TN 38059; phone 731.627.0802; www.adda.org.

### **Career Opportunities**

*Graduates may find employment as drafters or in various other occupations in the drafting/AutoCAD field.*

### **Credit Required for Graduation: Minimum of 46 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Basic Skills Courses</i>		
_____	EMPL 1000	Interpersonal Relations and Professional Development	2
_____	ENGL 1010	Fundamentals of English I	3
_____	MATH 1012	Foundations of Mathematics	3
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	DFTG 1015	Practical Mathematics for Drafting Technology	3
_____	DFTG 1101	CAD Fundamentals	4
_____	DFTG 1103	Multiview/Basic Dimensioning	4

**-and-**

#### **Choose one of the following specializations**

	<i>Specific Occupational Courses (<b>Mechanical Drafting Specialization – 24 credits</b>)</i>		
_____	DFTG 1105	3D Mechanical Modeling	4
_____	DFTG 1107	Advanced Dimensioning/Sectional Views	4
_____	DFTG 1109	Auxiliary Views/Surface Development	4
_____	DFTG 1111	Fasteners	4
_____	DFTG 1113	Assembly Drawings	4

*Occupational Electives appear on next page.*



<i>Occupational Electives (4 credits from the list below)</i>			
_____	DFTG 1127	Architectural 3D Modeling	4
_____	DFTG 2010	Engineering Graphics	4
_____	DFTG 2030	Advanced 3D Modeling Architectural	4
_____	DFTG 2110	Print Reading I	2
_____	DFTG 2120	Print Reading for Architecture	3
_____	DFTG 2210	Print Reading II	2
_____	DFTG 2500	Drafting Technology Exit Review	3

<i>Specific Occupational Courses (<b>Architectural Drafting Specialization – 24 credits</b>)</i>			
_____	DFTG 1125	Architectural Fundamentals	4
_____	DFTG 1127	Architectural 3D Modeling	4
_____	DFTG 1129	Residential Drawing I	4
_____	DFTG 1131	Residential Drawing II	4
_____	DFTG 1133	Commercial Drawing I	4

<i>Occupational Electives (select 4 credits from the list below)</i>			
_____	DFTG 2010	Engineering Graphics	4
_____	DFTG 2030	Advanced 3D Modeling Architectural	4
_____	DFTG 2110	Print Reading I	2
_____	DFTG 2120	Print Reading for Architecture	3
_____	DFTG 2210	Print Reading II	2
_____	DFTG 2500	Drafting Technology Exit Review	3

# Advanced CAD Technician Certificate (AC51)

The Advanced CAD Technician certificate program endows students with the prospect to continue on the career pathway toward advancement in the drafting profession. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in drafting practices and software.

## Career Opportunities

Graduates may find employment as specialized CAD technicians in engineering and related services firms or in manufacturing industries.

**Credit Required for Completion: Minimum of 31 credit hours**

## Curriculum

Program Course	Credits
<i>Occupational Courses</i>	
_____ COMP 1000     Introduction to Computers	3
_____ DFTG 1101     CAD Fundamentals	4
_____ DFTG 1103     Multiview/Basic Dimensioning	4

**-and-**

### Choose one of the following specializations

<i>Specific Occupational Courses (Mechanical Drafting Specialization – 20 credits)</i>	
_____ DFTG 1105     3D Mechanical Modeling	4
_____ DFTG 1107     Advanced Dimensioning/Sectional Views	4
_____ DFTG 1109     Auxiliary Views/Surface Development	4
_____ DFTG 1111     Fasteners	4
_____ DFTG 1113     Assembly Drawings	4
<i>Specific Occupational Courses (Architectural Drafting Specialization – 20 credits)</i>	
_____ DFTG 1125     Architectural Fundamentals	4
_____ DFTG 1127     Architectural 3D Modeling	4
_____ DFTG 1129     Residential Drawing I	4
_____ DFTG 1131     Residential Drawing II	4
_____ DFTG 1133     Commercial Drawing I	4

# CAD Operator Certificate (CP41)

The CAD Operator certificate program endows students with the prospect to continue on the career pathway toward advancement in the drafting profession. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in drafting practices and software.

## **Career Opportunities**

Graduates may find employment as specialized CAD operators in manufacturing environment or in related drafting positions such as land surveyors, mechanical drafters, or detailers for construction companies.

## **Credit Required for Completion: Minimum of 20 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	DFTG 1101	CAD Fundamentals	4
_____	DFTG 1103	Multiview/Basic Dimensioning	4

**-and-**

### **Choose one of the following specializations**

	<i>Specific Occupational Courses (<b>Mechanical Drafting Specialization – 12 credits</b>)</i>		
_____	DFTG 1105	3D Mechanical Modeling	4
_____	DFTG 1107	Advanced Dimensioning/Sectional Views	4
_____	DFTG 1109	Auxiliary Views/Surface Development	4
	<i>Specific Occupational Courses (<b>Architectural Drafting Specialization – 12 credits</b>)</i>		
_____	DFTG 1125	Architectural Fundamentals	4
_____	DFTG 1127	Architectural 3D Modeling	4
_____	DFTG 1129	Residential Drawing I	4

## Drafter's Assistant Certificate (DA31)

The Drafter's Assistant certificate program allows students to begin on the career pathway toward employment or advancement in the drafting profession. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in drafting practices and software.

### **Career Opportunities**

*Graduates may find entry-level employment as drafter's assistants with manufacturing industries, engineering, or related service firms.*

### **Credit Required for Completion: Minimum of 11 credit hours**

#### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ DFTG 1101	CAD Fundamentals	4
_____ DFTG 1103	Multiview/Basic Dimensioning	4
_____ DFTG xxxx	Occupational Elective	3

# Electrical Construction and Maintenance

## Electrical Systems Technology Diploma (ESI2)

The Electrical Systems Technology diploma program provides instruction in the inspection, maintenance, installation, and repair of electrical systems in the residential, commercial, and industrial industries. A combination of theory and practical application is emphasized to develop academic, technical, and professional knowledge and skills.

### **Career Opportunities**

*Graduates may find employment with a number of firms both small and large. Local residential/commercial electrical contractors as well as larger manufacturing businesses or industries will continue to have a need for individuals with basic skills in electricity. Program graduates have the qualifications of entry level electricians.*

### **Credit Required for Graduation: Minimum of 43 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Basic Skills Courses</i>		
_____	EMPL 1000	Interpersonal Relations and Professional Development	2
_____	ENGL 1010	Fundamentals of English I	3
_____	MATH 1012	Foundations of Mathematics	3
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	ELTR 1020	Electrical Systems Basics I	3
	-or-		
_____	IDFC 1012	Alternating Current I	(3)
	-or-		
_____	IDSY 1105	AC Circuit Analysis	(3)
_____	ELTR 1060	Electrical Prints, Schematics, and Symbols	2
_____	ELTR 1080	Commercial Wiring I	5
_____	ELTR 1090	Commercial Wiring II	3
_____	ELTR 1180	Electrical Controls	4
_____	IDFC 1007	Industrial Safety Procedures	2
_____	IDFC 1011	Direct Current I	3
	-or-		
_____	IDSY 1101	DC Circuit Analysis	(3)

**-and-**

**Choose one of the specializations on next page**

**Choose one of the following specifications**

*Specific Occupational Courses (**Electrical Construction Maintenance Specialization – 10 credits**)*

_____	ELTR 1205	Residential Wiring I	3
_____	ELTR 1210	Residential Wiring II	3

*Occupational Electives (4 credits from the list below)*

_____	ELTR 1520	Grounding and Bonding	2
_____	ELTR 1525	Photovoltaic Systems	5
_____	ELTR 1530	Conduit Sizing	2
_____	ELTR 1540	Wire Pulling and Codes	3

*Specific Occupational Courses (**Industrial Electrical Technology Specialization – 10 credits**)*

_____	ELTR 1220	Industrial PLCs	4
_____	ELTR 1250	Diagnostic Troubleshooting	2
_____	ELTR 1270	NEC Industrial Wiring Applications	4

## Commercial Wiring Certificate (CW3 I)

The Commercial Wiring certificate program provides instruction in the knowledge and skills necessary to perform wiring functions in a commercial setting. Topics include safety practices, blueprint and schematic reading and interpretation, and wiring procedures and practices.

### **Career Opportunities**

*Graduates may find entry-level employment in the field of electrical construction or maintenance.*

**Credit Required for Completion: Minimum of 18 credit hours**

### **Curriculum**

<b>Program Course</b>	<b>Credits</b>
<i>Occupational Courses</i>	
_____ ELTR 1060      Electrical Prints, Schematics, and Symbols	2
_____ ELTR 1080      Commercial Wiring I	5
_____ ELTR 1090      Commercial Wiring II	3
_____ IDFC 1007      Industrial Safety Procedures	2
_____ IDFC 1011      Direct Current I	3
_____ -or-	
_____ IDSY 1101      DC Circuit Analysis	(3)
_____ IDFC 1012      Alternating Current I	3
_____ -or-	
_____ ELTR 1020      Electrical Systems Basics I	(3)
_____ -or-	
_____ IDSY 1105      AC Circuit Analysis	(3)

# Energy Industry Fundamentals Certificate (EII I)

Energy Industry Fundamentals technical certificate provides a broad understanding of the electric and natural gas utility industry and the energy generation, transmission, and distribution infrastructure, commonly called the “largest machine in the world,” which forms the backbone for the industry. The program includes business models, regulations, types of energy and their conversion to useable energy such as electric power, how generated power is transmitted and distributed to the point of use, emerging technology, and the connection to careers in the energy industry. Upon successful completion of this program and a satisfactory score (68%) on the final program assessment, students will receive an industry recognized certificate through the Center for Energy Workforce Development (CEWD). The bearer of the Energy Industry Fundamentals certificate has a foundational knowledge and understanding of the utility industry. While completion of the program may better prepare a student to seek industry certification or licensure, the certificate holder is not certified or licensed.

## Career Opportunities

Graduates may find entry-level employment as line-workers, sub-station technicians, engineering technicians, relay technicians, natural gas technicians, plant operators, electrical technicians, mechanical technicians, instrument and control technicians, and alternate fuel technicians.

**Credit Required for Completion: Minimum of 28 credit hours**

## Curriculum

	Program Course	Credits
	<i>Occupational Courses</i>	
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	ALET 1100 Foundations of Energy Technologies	3
_____	ALET 1120 Energy and Power Generation/Transmission/Distribution	3
_____	ALET 1130 Energy Systems Applications	3
_____	ELCR 1010 Direct Current Circuits	6
_____	ELCR 1020 Alternating Current Circuits	7
_____	ELCR 2110 Process Control	3
	-or-	
_____	ELCR 2130 Programmable Controllers	(3)



# Photovoltaic Systems Installation and Repair Technician Certificate (PSII)

The Photovoltaic Systems Installation and Repair Technician certificate program provides individuals with the opportunity to enter a workforce area that specializes in electrical applications of installing, inspecting, and repairing solar panels in the electrical construction industry.

## **Career Opportunities**

*Graduates may find entry-level employment as photovoltaic systems technicians.*

**Credit Required for Completion: Minimum of 15 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	IDFC 1007	Industrial Safety Procedures	2
_____	IDFC 1011	Direct Currents I	3
	-or-		
_____	IDSY 1101	DC Circuit Analysis	(3)
_____	ELTR 1020	Electrical Systems Basics I	3
	-or-		
_____	IDFC 1012	Alternating Current I	(3)
	-or-		
_____	IDSY 1105	AC Circuit Analysis	(3)
_____	ELTR 1060	Electrical Prints, Schematics, and Symbols	2
_____	ELTR 1525	Photovoltaic Systems	5

# Residential Wiring Technician Certificate (RW21)

The Residential Wiring certificate program prepares students for employment in the construction industry as qualified residential wiring technicians. Topics include NEC regulations, blueprint reading, principles of direct and alternating current, and residential wiring procedures and practices.

## Career Opportunities

Graduates may find entry-level employment as residential wiring technicians in the field of electrical construction or maintenance.

**Credit Required for Completion: Minimum of 16 credit hours**

## Curriculum

Program Course		Credits
<i>Occupational Courses</i>		
_____	ELTR 1020 Electrical Systems Basics I	3
	-or-	
_____	IDFC 1012 Alternating Current I	(3)
	-or-	
_____	IDSY 1105 AC Circuit Analysis	(3)
_____	ELTR 1060 Electrical Prints, Schematics, and Symbols	2
_____	ELTR 1205 Residential Wiring I	3
_____	ELTR 1210 Residential Wiring II	3
_____	IDFC 1007 Industrial Safety Procedures	2
_____	IDFC 1011 Direct Current I	3
	-or-	
_____	IDSY 1101 DC Circuit Analysis	(3)

# Electronics and Telecommunications

## Electronics Technology AAS Degree (ET13)

The Electronics Technology associate 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.

### **Career Opportunities**

Graduates may find employment as specialized industrial or specialized general electronics technicians, assemblers, testers, repairers, and calibrators.

### **Credit Required for Graduation: Minimum of 61 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### *General Core Courses*

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours; must include PSYC 1101)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, IV

<b>Program Course</b>	<b>Credits</b>
<i>Occupational Courses</i>	
_____ COMP 1000     Introduction to Computers	3
_____ ELCR 1005     Soldering Technology	1
_____ ELCR 1010     Direct Current Circuits	6
_____ ELCR 1020     Alternating Current Circuits	7
_____ ELCR 1030     Solid State Devices	5
_____ ELCR 1040     Digital and Microprocessor Fundamentals	5
_____ ELCR 1060     Linear Integrated Circuits	3

**-and-**

**Choose one of the specializations on next page.**

*Specific Occupational Courses (Industrial Electronics Technology Specialization – 16 credits)*

_____	ELCR 2110	Process Control	3
_____	ELCR 2120	Motor Controls	3
_____	ELCR 2130	Programmable Controllers	3
_____	ELCR 2140	Mechanical Devices	2
_____	ELCR 2150	Fluid Power	2
_____	ELCR 2160	Advanced Microprocessors and Robotics	3

*Specific Occupational Courses (Field Occupation Specialization – 16 credits)*  
*Occupational Electives (16 credits from the list below)*

_____	DFTG 1101	CAD Fundamentals	4
_____	ELCR 2110	Process Control	3
_____	ELCR 2120	Motor Controls	3
_____	ELCR 2130	Programmable Controllers	3
_____	ELCR 2150	Fluid Power	2
_____	ELCR 2590	Fiber Optic Systems	3
_____	ELCR 2600	Telecommunication and Data Cabling	3
_____	ELCR 2660	Security System Installation and Testing	4
_____	ELTR 1060	Electrical Prints, Schematics, Symbols	2

*Specific Occupational Courses (Biomedical Instrumentation Technology Specialization – 18 credits)*

_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	BMET 1231	Medical Equipment Function and Operation I	4
_____	BMET 2242	Medical Equipment Function and Operation II	4
_____	BMET 2243	Internship Medical System	3

# Electronics Technology Diploma (ET14)

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.

## **Career Opportunities**

*Graduates may find employment as specialized industrial or specialized general electronics technicians, assemblers, testers, repairers, and calibrators.*

**Credit Required for Graduation: Minimum of 54 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Basic Skills Courses</i>		
_____	EMPL 1000	Interpersonal Relations and Professional Development	2
_____	ENGL 1010	Fundamentals of English I	3
_____	MATH 1012	Foundations of Mathematics	3
	<i>Occupational Courses</i>		
_____	COMP 1000	Introduction to Computers	3
_____	ELCR 1005	Soldering Technology	1
_____	ELCR 1010	Direct Current Circuits	6
_____	ELCR 1020	Alternating Current Circuits	7
_____	ELCR 1030	Solid State Devices	5
_____	ELCR 1040	Digital and Microprocessor Fundamentals	5
_____	ELCR 1060	Linear Integrated Circuits	3

**-and-**

**Choose one of the specializations on the next page**

**Choose one of the following specializations**

*Specific Occupational Courses (**Industrial Electronics Technology Specialization – 16 credits**)*

_____	ELCR 2110	Process Control	3
_____	ELCR 2120	Motor Controls	3
_____	ELCR 2130	Programmable Controllers	3
_____	ELCR 2140	Mechanical Devices	2
_____	ELCR 2150	Fluid Power	2
_____	ELCR 2160	Advanced Microprocessors and Robotics	3

*Specific Occupational Courses (**Field Occupation Specialization**)*

*Occupational Electives (16 credits from the list below)*

_____	DFTG 1101	CAD Fundamentals	4
_____	ELCR 2110	Process Control	3
_____	ELCR 2120	Motor Controls	3
_____	ELCR 2130	Programmable Controllers	3
_____	ELCR 2150	Fluid Power	2
_____	ELCR 2590	Fiber Optic Systems	3
_____	ELCR 2600	Telecommunication and Data Cabling	3
_____	ELCR 2660	Security System Installation and Testing	4
_____	ELTR 1060	Electrical Prints, Schematics, Symbols	2

*Specific Occupational Courses (**Biomedical Instrumentation Technology Specialization – 17 credits**)*

_____	ALHS 1011	Structure and Function of the Human Body	5
_____	ALHS 1090	Medical Terminology for Allied Health Sciences	2
_____	BMET 1231	Medical Equipment Function and Operation I	4
_____	BMET 2242	Medical Equipment Function and Operation II	4
_____	BMET 2243	Internship Medical System	3

## Basic Electronics Assembler Certificate (BE41)

The Basic Electronics Assembler certificate program is designed to prepare students for careers as entry-level production technicians in a manufacturing environment, or as service technicians or operators in the telecommunications industry. Topics include basic mathematics, direct current circuits, and soldering techniques.

### **Career Opportunities**

*Graduates of this program may find employment as entry-level electronics assemblers in various workplace environments, including manufacturing, electronic service operations, and telecommunications service industries.*

### **Credit Required for Completion: Minimum of 10 credit hours**

#### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	ELCR 1005	Soldering Technology	1
_____	ELCR 1010	Direct Current Circuits	6
_____	MATH 1012	Foundations of Mathematics	3
	-or-		
_____	MATH 1013	Algebraic Concepts	(3)
	-or-		
_____	MATH 1111	College Algebra	(3)

# Electronics Technician Certificate (ET21)

The Electronics Technician certificate program is designed to prepare students for careers as entry-level technicians in industry. Topics include basic mathematical skills, soldering techniques, direct current circuits, alternating current circuits, solid state circuits, digital and microprocessor fundamentals, and linear integrated circuits.

## **Career Opportunities**

*Graduates of this program may find employment as entry-level electronics technicians in various workplace environments, including manufacturing, electronic service operations, and telecommunications service industries.*

## **Credit Required for Completion: Minimum of 30 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	ELCR 1005     Soldering Technology	1
_____	ELCR 1010     Direct Current Circuits	6
_____	ELCR 1020     Alternating Current Circuits	7
_____	ELCR 1030     Solid State Devices	5
_____	ELCR 1040     Digital and Microprocessor Fundamentals	5
_____	ELCR 1060     Linear Integrated Circuits	3
_____	MATH 1012     Foundations of Mathematics	3
	-or-	
_____	MATH 1013     Algebraic Concepts	(3)
	-or-	
_____	MATH 1111     College Algebra	(3)



# Engineering Technology

## Engineering Technology AAS Degree (ET33)

The Engineering Technology associate degree program is intended to provide the opportunity for students to explore a career in engineering at the professional level. Program graduates will be qualified as engineering technicians with a specialization in mechanical engineering technology, electrical engineering technology, or industrial engineering technology.

### **Career Opportunities**

Graduates may seek employment as entry-level engineering technicians in a variety of industrial or manufacturing fields.

### **Credit Required for Completion: Minimum of 67 credit hours**

### **Curriculum**

All Associate of Applied Science Degrees require a minimum 15 credit hours of general education courses using the curriculum structure outlined in the beginning of this degree program section. The Engineering Technology associate degree program requires 37 credit hours in Areas I, II, III, and IV. All course prerequisites must be met.

	<b>Program Course</b>	<b>Credits</b>
	<i>General Core Courses</i>	
	Area I requirements (all required – 9 credits):	
_____	ENGL 1101      Composition and Rhetoric	3
_____	ENGL 1102      Literature and Composition	3
_____	SPCH 1101      Public Speaking	3
	Area II requirements (all required – 3 credits):	
_____	HIST 1111      World History I	3
	-or-	
_____	HIST 1112      World History II	(3)
	Area III requirements (all required – 22 credits):	
_____	CHEM 1211      Chemistry I	3
_____	CHEM 1211L      Chemistry I Lab	1
_____	MATH 1111      College Algebra	3
_____	MATH 1113      Precalculus	3
_____	MATH 1131      Calculus I	4
_____	PHYS 1111      Introductory Physics I	3
_____	PHYS 1111L      Introductory Physics I Lab	1
_____	PHYS 1112      Introductory Physics II	3
_____	PHYS 1112L      Introductory Physics II Lab	1

(continued)

Area IV requirements (all required – 3 credits)

_____	ARTS 1101	Art Appreciation	3
	-or-		
_____	MUSC 1101	Music Appreciation	(3)
<i>Occupational Courses (10 credits)</i>			
_____	DFTG 2010	Engineering Graphics	4
_____	ENGL 1105	Technical Communications	3
_____	ENGT 1000	Introduction to Engineering Technology	3
	-and-		

**Choose one of the following specializations**

*Specific Occupational Courses (Electrical Engineering Technology Specialization – 20 credits)*

_____	ECET 1101	Circuit Analysis I	4
_____	ECET 1110	Digital Systems I	4
_____	ECET 2101	Circuit Analysis II	4
_____	ECET 2120	Electronic Circuits I	4
_____	MATH 1132	Calculus II	4

*Specific Occupational Courses (Industrial Engineering Technology Specialization – 22 credits)*

_____	ACCT 1100	Financial Accounting I	4
_____	CIST 1305	Program Design and Development	3
_____	CIST 2361	C++ programming I	4
_____	MATH 1127	Introduction to Statistics	3
_____	MEGT 1010	Manufacturing Processes	3
_____	MEGT 1321	Machining and Welding	2
_____	XXXX xxxx	Occupational Elective	3

*Specific Occupational Courses (Mechanical Engineering Technology Specialization – 22 credits)*

_____	CIST 1305	Program Design and Development	3
_____	CIST 2361	C++ programming I	4
_____	DFTG 2020	Visualization and Graphics	3
_____	ENGL 2130	American Literature	3
_____	MATH 1132	Calculus II	4
_____	MEGT 1010	Manufacturing Processes	3
_____	MEGT 1321	Machining and Welding	2

# Manufacturing Technology Certificate (MT31)

The Manufacturing Technician certificate program prepares students for entry-level employment in a manufacturing environment or for continued education in manufacturing or engineering programs of study. Students are introduced to fundamental manufacturing processes, including manufacturing design, machining, and assembly; mathematical operators and analytical problem solving; technical schematics and symbols; drafting tools and techniques; and engineering tools and concepts. All didactic and lab principles are applied as practiced in an industrial setting.

## **Career Opportunities**

*Graduates may be employed as manufacturing production technicians or in similar positions in the manufacturing sector.*

## **Credit Required for Completion: Minimum of 13 credit hours**

### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ DFTG 2010	Engineering Graphics	4
_____ ENGT 1000	Introduction to Engineering Technology	3
_____ IDSY 1020	Print Reading and Problem Solving	3
_____ -or- _____ CIST 1305	Program Design and Development	(3)
_____ MEGT 1010	Manufacturing Processes	3

# Industrial Systems Technology

## Electrical Control Systems Diploma (EC22)

The Electrical Control Systems diploma program is a sequence of courses designed to prepare students in the field of electrical control systems. Learning opportunities develop academic and professional knowledge, along with skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in PLCs, electrical controls, and instrumentation.

### **Career Opportunities**

*Graduates may find employment as industrial electricians, industrial control technicians, or in related occupations.*

**Credit Required for Graduation: Minimum of 44 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000      Interpersonal Relations and Professional Development	2
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000      Introduction to Computers	3
_____	IDSY 1101      DC Circuit Analysis	3
_____	-or- IDFC 1011      Direct Current I	(3)
_____	IDSY 1105      AC Circuit Analysis	3
_____	-or- ELTR 1020      Electrical Systems Basics I	(3)
_____	-or- IDFC 1012      Alternating Current I	(3)
_____	IDSY 1110      Industrial Motor Controls I	4
_____	IDSY 1120      Basic Industrial PLCs	4
_____	IDSY 1130      Industrial Wiring	4
_____	IDSY 1210      Industrial Motor Controls I	4
_____	IDSY 1220      Intermediate Industrial PLCs	4
_____	IDSY 1230      Industrial Instrumentation	4

***Occupational Electives listed on next page.***

<i>Occupational Electives (select 3 credits from the list below)</i>			
_____	AIRC 1005	Refrigeration Fundamentals	4
_____	IDSY 1170	Industrial Mechanics	4
_____	IDSY 1190	Fluid Power Systems	4
_____	IDSY 1195	Pumps and Piping Systems	3
_____	MCHT 1119	Lathe Operations I	3
_____	MCHT 1120	Mill Operations	3
_____	WELD 1000	Introduction to Welding Technology	4

# Industrial Mechanical Systems Diploma (IMS2)

The Industrial Mechanical Systems diploma program provides instruction to prepare students for employment in a variety of positions within the industrial production equipment maintenance field. The program provides learning opportunities that introduce, develop, and reinforce academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to retrain or upgrade present knowledge and skills.

## Career Opportunities

Graduates are prepared for entry-level employment or career advancement as industrial maintenance mechanics in a wide range of industrial settings.

## Credit Required for Graduation: Minimum of 51 credit hours

### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____	COMP 1000 Introduction to Computers	3
_____	IDSY 1020 Print Reading and Problem Solving	3
_____	IDSY 1101 DC Circuit Analysis	3
_____	-or- IDFC 1011 Direct Current I	(3)
_____	IDSY 1105 AC Circuit Analysis	3
_____	-or- ELTR 1020 Electrical Systems Basics I	(3)
_____	-or- IDFC 1012 Alternating Current I	(3)
_____	IDSY 1110 Industrial Motor Controls I	4
_____	IDSY 1160 Mechanical Laws and Principles	4
_____	IDSY 1170 Industrial Mechanics	4
_____	IDSY 1190 Fluid Power Systems	4
_____	IDSY 1195 Pumps and Piping Systems	3
_____	IDSY 1240 Maintenance for Reliability	4
<i>Occupational Electives (select 8 credits from the list below)</i>		
_____	ELCR 1005 Soldering Technology	1
_____	ELCR 1010 Direct Current Circuits	6

	<i>(continued)</i>		
_____	ELCR 1020	Intermediate Industrial PLCs	7
_____	ELCR 2110	Process Controls	3
_____	ELCR 2130	Programmable Controls	3
_____	ELCR 2160	Advanced Microprocessors and Robotics	3
_____	IDSY 1120	Basic Industrial PLCs	4
_____	IDSY 1130	Industrial Wiring	4
_____	IDSY 1210	Industrial Motor Controls II	4
_____	IDSY 1220	Intermediate Industrial PLCs	4
_____	IDSY 1230	Industrial Instrumentation	4
_____	WELD 1000	Introduction to Welding Technology	4
_____	WELD 1010	Oxyfuel and Plasma Cutting	4
_____	WELD 1040	Flat Shielded Metal Arc Welding	4
_____	WELD 1090	Gas Metal Arc Welding	4

# Industrial Systems Technology Diploma (IST4)

The Industrial Systems Technology diploma program is designed for the student who wishes to prepare for a career as an industrial systems technician/electrician. 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 teaches skills in industrial systems technology providing background skills in several areas of industrial maintenance including electronics, industrial wiring, motors, controls, PLCs, instrumentation, fluid power, mechanical, pumps and piping, and computers.

## **Career Opportunities**

*Graduates may find employment as industrial electricians or industrial systems technicians with any industrial enterprise or manufacturing concern.*

## **Credit Required for Graduation: Minimum of 46 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	COMP 1000 Introduction to Computers	3
_____	IDSY 1101 DC Circuit Analysis	3
	-or-	
_____	IDFC 1011 Direct Current I	(3)
_____	IDSY 1105 AC Circuit Analysis	3
	-or-	
_____	ELTR 1020 Electrical Systems Basics I	(3)
	-or-	
_____	IDFC 1012 Alternating Current I	(3)
_____	IDSY 1110 Industrial Motor Controls I	4
_____	IDSY 1120 Basic Industrial PLCs	4
_____	IDSY 1130 Industrial Wiring	4
_____	IDSY 1170 Industrial Mechanics	4
_____	IDSY 1190 Fluid Power Systems	4
_____	IDSY 1195 Pumps and Piping Systems	3

**Occupational Electives listed on next page.**



<i>Occupational Electives (select 6 credits from the list below)</i>			
_____	AIRC 1005	Refrigeration Fundamentals	4
_____	IDSY 1150	DC and AC Motors	3
_____	IDSY 1210	Industrial Motor Controls II	4
_____	IDSY 1220	Intermediate Industrial PLCs	4
_____	IDSY 1230	Industrial Instrumentation	4
_____	MCHT 1119	Lathe Operations I	3
_____	MCHT 1120	Mill Operations	3
_____	WELD 1000	Introduction to Welding Technology	4

# Electrical Maintenance Technician Certificate (EM81)

The Electrical Maintenance Technician Technical Certificate of Credit provides instruction in industrial systems electrical inspection, maintenance, service, and repair. Topics include DC and AC fundamentals, motor controls, magnetic starters and braking systems, PLCs, and industrial wiring procedures.

## **Career Opportunities**

*Graduates may find entry-level employment as industrial maintenance technicians/electricians.*

**Credit Required for Completion: Minimum of 18 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	IDSY 1101      DC Circuit Analysis	3
	-or-	
_____	IDFC 1011      Direct Current I	(3)
_____	IDSY 1105      AC Circuit Analysis	3
	-or-	
_____	ELTR 1020      Electrical Systems Basics	(3)
	-or-	
_____	IDFC 1012      Alternating Current I	(3)
_____	IDSY 1110      Industrial Motor Controls I	4
_____	IDSY 1120      Basic Industrial PLCs	4
_____	IDSY 1130      Industrial Wiring	4

# Industrial Electrician Certificate (IE4I)

The Industrial Electrician certificate program prepares students for employment using electrical maintenance skills. Instruction is provided in the occupational areas of industrial safety, direct and alternating current principles, and industrial wiring.

## **Career Opportunities**

*Graduates may find entry-level employment in industrial electronics.*

**Credit Required for Completion: Minimum of 10 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	IDSY 1101      DC Circuit Analysis	3
	-or-	
_____	IDFC 1011      Direct Current I	(3)
_____	IDSY 1105      AC Circuit Analysis	3
	-or-	
_____	ELTR 1020      Electrical Systems Basics	(3)
	-or-	
_____	IDFC 1012      Alternating Current I	(3)
_____	IDSY 1130      Industrial Wiring	4

# Industrial Fundamentals Certificate (IS61)

The Industrial Systems Fundamentals Technical Certificate of Credit is an introductory program preparing students for employment in a variety of positions in industrial systems production equipment maintenance. Basic skills provide for opportunities to upgrade or for entry level employment.

## **Career Opportunities**

*Graduates may find entry-level employment as industrial systems technicians*

**Credit Required for Completion: Minimum of 12 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	IDFC 1011      Direct Current I	3
	-or-	
_____	IDSY 1101      DC Circuit Analysis	(3)
_____	ELTR 1020      Electrical Systems Basics I	3
	-or-	
_____	IDFC 1012      Alternating Current I	(3)
	-or-	
_____	IDSY 1105      AC Circuit Analysis	(3)
_____	MATH 1012      Foundations of Mathematics	3
	-or-	
_____	MATH 1013      Algebraic Concepts	(3)
_____	XXXX xxxx      Occupational Elective	3

# Industrial Systems Mechanic Certificate (IS71)

The Industrial Systems Fundamentals Technical Certificate of Credit is an introductory program preparing students for employment in a variety of positions in industrial systems production equipment maintenance. Basic skills provide for opportunities to upgrade or for entry level employment.

## Career Opportunities

Graduates may find entry-level employment as industrial systems mechanics.

## Credit Required for Completion: Minimum of 20 credit hours

### Curriculum

	Program Course		Credits
<i>Occupational Courses</i>			
_____	IDFC 1011	Direct Current I	3
	-or-		
_____	IDSY 1101	DC Circuit Analysis	(3)
_____	ELTR 1020	Electrical Systems Basics I	3
	-or-		
_____	IDFC 1012	Alternating Current I	(3)
	-or-		
_____	IDSY 1105	AC Circuit Analysis	(3)
_____	IDSY 1160	Mechanical Laws and Principles	4
_____	IDSY 1170	Industrial Mechanics	4
_____	MATH 1012	Foundations of Mathematics	3
	-or-		
_____	MATH 1013	Algebraic Concepts	(3)
_____	XXXX xxxx	Occupational Elective	3

# Programmable Control Technician Certificate (PC81)

The Programmable Controller Technician I certificate program offers specialized training in programmable controllers. Topics include motor control fundamentals, and instruction in basic and advanced PLCs.

## **Career Opportunities**

*Graduates may find entry-level employment as industrial system maintenance personnel, technicians, electricians, millwrights, and other related jobs in manufacturing and production facilities.*

**Credit Required for Completion: Minimum of 12 credit hours**

## **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	IDSY 1110	Industrial Motor Controls I	4
_____	IDSY 1120	Basic Industrial PLCs	4
_____	IDSY 1220	Intermediate Industrial PLCs	4

# Machine Tool Technology

## CNC Technology Diploma (CT12)

The CNC Technology diploma program is a sequence of courses that prepares students for careers in the CNC technology field. Learning opportunities develop academic, technical, and professional knowledge and skills for job acquisition, retention, and advancement. The program emphasizes a combination of CNC theory and practical application necessary for successful employment.

### Career Opportunities

Graduates may find employment as CNC technicians or machine tool technicians or in a related field.

### Credit Required for Graduation: Minimum of 50 credit hours

#### Curriculum

Program Course		Credits
<i>Basic Skills Courses</i>		
_____ EMPL 1000	Interpersonal Relations and Professional Development	2
_____ ENGL 1010	Fundamentals of English I	3
_____ MATH 1012	Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____ AMCA 2110	CNC Fundamentals	3
_____ AMCA 2130	CNC Mill Manual Programming	5
_____ AMCA 2150	CNC Lathe Manual Programming	5
_____ AMCA 2190	CAD/CAM Programming	4
_____ COMP 1000	Introduction to Computers	3
_____ MCHT 1011	Introduction to Machine Tool	4
_____ MCHT 1012	Blueprint for Machine Tool	3
_____ MCHT 1013	Machine Tool Math	3
_____ -or- MATH 1013	Algebraic Concepts	(3)
_____ -and- MATH 1015	Geometry and Trigonometry	(3)
_____ MCHT 1020	Heat Treatment and Surface Grinding	3
_____ MCHT 1119	Lathe Operations I	3
_____ MCHT 1120	Mill Operations I	3
<i>Occupational Electives (3 credits from the list below)</i>		
_____ AMCA 2170	CNC Practical Applications	3
_____ DFTG 1101	CAD Fundamentals	4
_____ MCHT 1030	Applied Measurement	3
_____ WELD 1000	Introduction to Welding Technology	4

# Machine Tool Technology Diploma (MTT2)

The Machine Tool Technology diploma program is a sequence of courses that prepares students for careers in the machine tool technology field. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of machine tool theory and practical application necessary for successful employment.

## Career Opportunities

Graduates may find employment as machine tool technicians or in a related field.

## Credit Required for Graduation: Minimum of 42 credit hours

### Curriculum

	Program Course	Credits
	<i>Basic Skills Courses</i>	
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	<i>Occupational Courses</i>	
_____	AMCA 2110 CNC Fundamentals	3
_____	COMP 1000 Introduction to Computers	3
_____	MCHT 1011 Introduction to Machine Tool	4
_____	MCHT 1012 Blueprint for Machine Tool	3
_____	MCHT 1013 Machine Tool Math	3
_____	-or- MATH 1013 Algebraic Concepts	(3)
_____	-and- MATH 1015 Geometry and Trigonometry	(3)
_____	MCHT 1020 Heat Treatment and Surface Grinding	3
_____	MCHT 1119 Lathe Operations I	3
_____	MCHT 1120 Mill Operations I	3
_____	MCHT 1219 Lathe Operations II	3
_____	MCHT 1220 Mill Operations II	3
	<i>Occupational Electives (3 credits from the list below)</i>	
_____	AMCA 2170 CNC Practical Applications	3
_____	DFTG 1101 CAD Fundamentals	4
_____	MCHT 1030 Applied Measurement	3
_____	WELD 1000 Introduction to Welding Technology	4



# Basic Machining Operator Certificate (BMOI)

The Basic Machining Operator certificate program prepares students for entry-level machine shop employment by providing the knowledge and skills in basic machining operations. Instruction is provided in blueprint reading; lathe, mill, and surface grinder operation; mathematical functions; and an introduction to the machine tool industry.

## **Career Opportunities**

*Graduates may find entry-level employment as machinists in the machine tool industry.*

## **Credit Required for Completion: Minimum of 19 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	MCHT 1011	Introduction to Machine Tool	4
_____	MCHT 1012	Blueprint for Machine Tool	3
_____	MCHT 1013	Machine Tool Math	3
_____	MCHT 1020	Heat Treatment and Surface Grinding	3
_____	MCHT 1119	Lathe Operations I	3
_____	MCHT 1120	Mill Operations I	3

## Basic Machinist Certificate (BM3 I)

The Basic Machinist certificate program prepares students for a machine tool operator position with a machine shop or machine tool establishment. Topics include foundations of mathematics, an introduction to machine tool technology, and blueprint reading for machine tool applications.

### **Career Opportunities**

*Graduates may find employment as basic machinists.*

**Credit Required for Completion: Minimum of 10 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	MATH 1012	Foundations of Mathematics	3
_____	MCHT 1011	Introduction to Machine Tool	4
_____	MCHT 1012	Blueprint for Machine Tool	3

## CNC Specialist Certificate (CS51)

The CNC Specialist certificate program provides training for graduates to gain employment as CNC machine tool technicians. Topics include CNC Fundamentals, mill and lathe manual programming, CNC practical applications, and CAD/CAM programming. The program emphasizes a combination of CNC theory and practical application necessary for successful employment.

### **Career Opportunities**

*Graduates may find employment as CNC machinist/operators or in related occupations.*

### **Credit Required for Completion: Minimum of 20 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	AMCA 2110 CNC Fundamentals	3
_____	AMCA 2130 CNC Mill Manual Programming	5
_____	AMCA 2150 CNC Lathe Manual Programming	5
_____	AMCA 2170 CNC Practical Applications	3
_____	AMCA 2190 CAD/CAM Programming	4

## Lathe Operator Certificate (LP II)

The Lathe Operator certificate program prepares students to use lathes, lathe set up, and lathe tool grinding. Emphasis is placed on cutting threads, boring holes to precise measurements, and cutting tapers. Topics include an introduction to machine tool technology, blueprint reading for machine tool, and basic and advanced lathe operations.

### **Career Opportunities**

*Graduates may find employment as entry-level lathe machinists.*

**Credit Required for Completion: Minimum of 13 credit hours**

### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____	MCHT 1011 Introduction to Machine Tool	4
_____	MCHT 1012 Blueprint for Machine Tool	3
_____	MCHT 1119 Lathe Operations I	3
_____	MCHT 1219 Lathe Operations II	3

# Mill Operator Certificate (MPII)

The Mill Operator certificate program teaches students to effectively operate milling machinery. Students become proficient in blueprint reading, general mathematical operations, and are provided the necessary knowledge and skills to obtain employment as a milling machinist.

### **Career Opportunities**

*Graduates may find employment as entry-level milling machinists.*

**Credit Required for Completion: Minimum of 13 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<b>Occupational Courses</b>		
_____	MCHT 1011	Introduction to Machine Tool	4
_____	MCHT 1012	Blueprint for Machine Tool	3
_____	MCHT 1120	Mill Operations I	3
_____	MCHT 1220	Mill Operations II	3

# Precision Manufacturing and Maintenance

## Precision Manufacturing and Maintenance AAS Degree (PMA3)

The Precision Manufacturing and Maintenance associate degree program is designed to develop versatile skills required for a variety of manufacturing positions, with emphasis on diagnosing and maintaining complex integrated systems. The planned sequence of courses prepares students to install, program, operate, maintain, service, and diagnose electromechanical equipment and produce precision parts used in manufacturing applications.

### Career Opportunities

Graduates may find employment as industrial/mechanical maintenance technicians, automation technicians, flexible manufacturing technicians, robotics technicians, or as supervisors in a variety of settings that require automated manufacturing skills.

**Credit Required for Completion: Minimum of 60 credit hours**

### Curriculum

All Associate of Applied Science Degrees require a minimum 15 credit hours using the curriculum structure outlined in the beginning of this degree program section. All course prerequisites must be met. Please see Associate Degree General Education Requirement Section for Area I, Area II, Area III, and Area IV requirements.

#### General Core Courses

\_\_\_\_\_ Area I requirements (minimum 3 hours; must include ENGL 1101)

\_\_\_\_\_ Area II requirements (minimum 3 hours)

\_\_\_\_\_ Area III requirements (minimum 3 hours; must include MATH 1101 or MATH 1111)

\_\_\_\_\_ Area IV requirements (minimum 3 hours)

\_\_\_\_\_ Additional 3 hours from Area I, II, III, or IV

Program Course		Credits
<i>Occupational Courses</i>		
_____ AUMF 1110	Flexible Manufacturing Systems I	5
_____ AUMF 1560	Manufacturing Production Requirements	1
_____ IDSY 1101	DC Circuit Analysis	3
_____ IDSY 1105	AC Circuit Analysis	3
_____ IDSY 1170	Industrial Mechanics	4
_____ IDSY 1240	Maintenance for Reliability	4
<i>Occupational Electives (select 6 credits from the list below)</i>		
_____ AUMF 1130	Applied Hydraulics, Pneumatics, and Mechanics	2
-or-		
_____ ELCR 2150	Fluid Power	(2)

	<i>(continued)</i>		
_____	AUMF 1210	Flexible Manufacturing Systems II	5
_____	ELCR 1280	Introduction to Embedded Systems	3
_____	ELCR 2110	Process Control	3
_____	IDSY 1110	Industrial Motor Controls I	4
_____	IDSY 1120	Basic Industrial PLCs	4
_____	IDSY 1130	Industrial Wiring	4
_____	IDSY 1220	Intermediate Industrial PLCs	4
_____	IDSY 1230	Industrial Instrumentation	4
_____	IDSY 1260	Machine Tool for Industrial Repairs <i>(required for Apprenticeship specialization)</i>	4
_____	MCHT 1011	Introduction to Machine Tool	4
_____	MEGT 1010	Manufacturing Processes <i>(required for Apprenticeship specialization)</i>	3

**-and-**

**Choose one of the following specializations**

	<i>Specific Occupational Courses (Industrial/Mechanical Apprenticeship—21 credits)</i>		
_____	AMCA 2110	CNC Fundamentals	3
_____	AUMF 1210	Flexible Manufacturing Systems II	5
_____	IDSY 1160	Mechanical Laws and Principles	4
_____	MCHT 1020	Heat Treatment and Surface Grinding	3
_____	MEGT 2100	Manufacturing Quality Control	3
_____	Occupational Elective(s) AMCA, AUMF, ELCR, IDSY, MCHT, MEGT		3
	<i>Specific Occupational Courses (Customized Training Specialization – 23 credits)</i>		
_____	AUMF 1130	Applied Hydraulics, Pneumatics, and Mechanics	2
_____	AUMF 1580	Automated Manufacturing Skills	3
_____	IDSY 1110	Industrial Motor Controls I	4
_____	IDSY 1120	Basic Industrial PLCs	4
_____	IDSY 1160	Mechanical Laws and Principles	4
_____	IDSY 1220	Intermediate Industrial PLCs	4

	<i>(continued)</i>		
_____	WELD 1330	Metal Welding and Cutting Techniques	2
	<i>Specific Occupational Courses (<b>Mechatronics Specialization – 22 credits</b>)</i>		
_____	AUMF 1120	Programmable Controllers	5
	-or-		
_____	IDSY 1120	Basic Industrial PLCs	4
_____	AUMF 1150	Introduction to Robotics	3
_____	AUMF 1580	Automated Manufacturing Skills	3
_____	IDSY 1005	Introduction to Mechatronics	4
_____	IDSY 1230	Industrial Instrumentation	4
_____	IDSY 2830	Networking Industrial Equipment	4



## Precision Manufacturing and Maintenance Diploma (PMA2)

The Precision Manufacturing and Maintenance diploma program is designed to develop versatile skills required for a variety of manufacturing positions. The planned sequence of courses prepares students to install, program, operate, maintain, service, and diagnose electromechanical equipment used in manufacturing applications.

### Career Opportunities

Graduates may find employment as industrial/mechanical maintenance technicians, automation technicians, flexible manufacturing technicians, or robotics technicians.

### Credit Required for Completion: Minimum of 50 credit hours

#### Curriculum

	Program Course	Credits
<i>Basic Skills Courses</i>		
_____	EMPL 1000 Interpersonal Relations and Professional Development	2
_____	ENGL 1010 Fundamentals of English I	3
_____	MATH 1012 Foundations of Mathematics	3
	-or-	
_____	MATH 1013 Algebraic Concepts	3
<i>Occupational Courses</i>		
_____	AUMF 1110 Flexible Manufacturing Systems I	5
_____	AUMF 1560 Manufacturing Production Requirements	1
_____	IDSY 1101 DC Circuit Analysis	3
_____	IDSY 1105 AC Circuit Analysis	3
_____	IDSY 1170 Industrial Mechanics	4
_____	IDSY 1240 Maintenance for Reliability	4
<i>Specific Occupational Courses (Industrial/Mechanical Apprenticeship–25 credits)</i>		
_____	AMCA 2110 CNC Fundamentals	3
_____	AUMF 1210 Flexible Manufacturing Systems II	5
_____	IDSY 1160 Mechanical Laws and Principles	4
_____	IDSY 1260 Machine Tool for Industrial Repairs	4
_____	MCHT 1020 Heat Treatment and Surface Grinding	3
_____	MEGT 2100 Manufacturing Quality Control	3
_____	MEGT 1010 Manufacturing Processes	3

-and-

**Choose one of the following specializations**

*Specific Occupational Courses (**Customized Training Specialization – 23 credits**)*

_____	AUMF 1130	Applied Hydraulics, Pneumatics, and Mechanics	2
_____	AUMF 1580	Automated Manufacturing Skills	3
_____	IDSY 1110	Industrial Motor Controls I	4
_____	IDSY 1120	Basic Industrial PLCs	4
_____	IDSY 1160	Mechanical Laws and Principles	4
_____	IDSY 1220	Intermediate Industrial PLCs	4
_____	WELD 1330	Metal Welding and Cutting Techniques	2

*Specific Occupational Courses (**Mechatronics Specialization – 19 credits**)*

_____	AUMF 1120	Programmable Controllers	5
_____	-or-		
_____	IDSY 1120	Basic Industrial PLCs	4
_____	AUMF 1150	Introduction to Robotics	3
_____	AUMF 1580	Automated Manufacturing Skills	3
_____	IDSY 1005	Introduction to Mechatronics	4
_____	IDSY 1230	Industrial Instrumentation	4
_____	IDSY 2830	Networking Industrial Equipment	4

## Industrial Machining Technician Certificate (IM61)

The Industrial Machining Technician certificate program provides the skills necessary to use tools and equipment to form and machine various materials, interpret drawings and produce sketches for machine tool applications, and demonstrate advanced machining operations performed on CNC machines. Topics include basic machine tool skills and common mechanical repairs; metallurgy principles; precision measurement and quality control procedures; production methods; and setup, operation, and programming of CNC machinery, as well as CAD/CAM. In addition to technical skills, critical thinking and problem solving are emphasized throughout.

### **Career Opportunities**

*Graduates may find entry-level employment as machining/CNC machining technicians or machine tool maintenance technicians in a variety of settings that require precision manufacturing skills.*

### **Credit Required for Completion: Minimum of 17 credit hours**

<b>Curriculum Program Course</b>		<b>Credits</b>
_____	AMCA 2110      CNC Fundamentals	3
_____	IDSY 1260      Machine Tool for Industrial Repairs	4
_____	MATH 1101      Mathematical Modeling	(3)
	-or-	
_____	MATH 1111      College Algebra	(3)
_____	MCHT 1020      Heat Treatment and Surface Grinding	3
_____	Occupational Elective(s) AMCA, AUMF, ELCR, IDSY, MCHT, MEGT	3

# Industrial Maintenance Technician Certificate (IM3 I)

The Industrial Maintenance Technician certificate program prepares students to install, program, troubleshoot, repair, and modify machinery and automated systems in manufacturing environments. Emphasis is on the maintenance and troubleshooting of industrial control systems and automated equipment.

## **Career Opportunities**

*Graduates may find employment as industrial technicians, automation technicians, or flexible manufacturing technicians in a variety of settings that require automated manufacturing skills.*

## **Credit Required for Completion: Minimum of 22 credit hours**

<b>Curriculum</b>		
<b>Program</b>	<b>Course</b>	<b>Credits</b>
_____	IDSY 1101 DC Circuit Analysis	3
_____	IDSY 1105 AC Circuit Analysis	3
_____	IDSY 1110 Industrial Motor Controls I	4
_____	IDSY 1120 Basic Industrial PLCs	4
_____	IDSY 1170 Industrial Mechanics	4
_____	IDSY 1220 Intermediate Industrial PLCs	4

# Manufacturing Maintenance Technician Certificate (MM71)

The Manufacturing Maintenance Technician certificate program prepares students to troubleshoot, repair, and maintain machinery in manufacturing environments. Emphasis is placed on applying electrical and mechanical concepts, using basic machine tool skills, and practicing practical problem solving techniques in an industrial setting.

## **Career Opportunities**

*Graduates may find entry-level employment as maintenance technicians in a variety of settings that require automated manufacturing skills.*

## **Credit Required for Completion: Minimum of 18 credit hours**

<b>Curriculum</b>		
<b>Program</b>	<b>Course</b>	<b>Credits</b>
_____	IDSY 1101 DC Circuit Analysis	3
_____	IDSY 1105 AC Circuit Analysis	3
_____	IDSY 1170 Industrial Mechanics	4
_____	IDSY 1160 Mechanical Laws and Principles	4
_____	IDSY 1260 Machine Tool for Industrial Repairs	4

# Manufacturing Production Assistant Certificate (MP3 I)

The Manufacturing Production Assistant certificate program is designed to acquaint students with production manufacturing processes. The sequence of courses introduces systems and procedures associated with quality and productivity in the manufacturing environment, including lean manufacturing, statistical control, and process capability.

## **Career Opportunities**

*Graduates may find entry-level employment as production assistants in a variety of settings that require automated manufacturing skills.*

## **Credit Required for Completion: Minimum of 11 credit hours**

<b>Curriculum</b>		
<b>Program</b>	<b>Course</b>	<b>Credits</b>
_____	AUMF 1560     Manufacturing Production Requirements	1
_____	IDSY 1240     Maintenance for Reliability	4
_____	MEGT 1010     Manufacturing Processes	3
_____	MEGT 2100     Manufacturing Quality Control	3

# Manufacturing Systems Technician Certificate (MD71)

The Manufacturing Systems Technician certificate program prepares students to set up, operate, troubleshoot, maintain, and repair flexible manufacturing systems. Topics include flexible manufacturing system electrical, electronic, and mechanical principles; manufacturing control processes; basic maintenance procedures; and effective debugging and troubleshooting techniques. Students will have the opportunity to plan and prepare the construction and operation of a flexible automated system, as well as work in teams assembling and operating automated production system cells.

### **Career Opportunities**

*Graduates may find entry-level employment as manufacturing systems operation and maintenance technicians in a variety of settings that require automated manufacturing skills.*

### **Credit Required for Completion: Minimum of 16 credit hours**

<b>Curriculum Program Course</b>		<b>Credits</b>
_____	AUMF 1110 Flexible Manufacturing Systems I	5
_____	AUMF 1210 Flexible Manufacturing Systems II	5
_____	IDSY 1101 DC Circuit Analysis	3
_____	IDSY 1105 AC Circuit Analysis	3

# Mechanical Maintenance Specialist Certificate (MM51)

The Mechanical Maintenance Specialist certificate program is designed to prepare students to assemble, install, troubleshoot, repair, and maintain production equipment, as well as fabricate precision parts used in manufacturing applications. Emphasis is placed on control systems and processes and related problem solving skills.

## Career Opportunities

Graduates may find employment as mechanical maintenance technicians, automation technicians, field service technicians, maintenance mechanics, or flexible manufacturing technicians in a variety of settings that require automated manufacturing skills.

## Credit Required for Completion: Minimum of 19 credit hours

Curriculum Program Course		Credits
_____	AUMF 1130 Applied Hydraulics, Pneumatics, and Mechanics	2
_____	AUMF 1580 Automated Manufacturing Skills	3
_____	IDSY 1160 Mechanical Laws and Principles	4
_____	AUMF 1110 Flexible Manufacturing Systems I	5
_____	MATH 1012 Foundations of Mathematics	3
_____	-or- MATH 1013 Algebraic Concepts	(3)
_____	WELD 1330 Metal Welding and Cutting Techniques	2



# MOWR Manufacturing Maintenance Technician Certificate (MMMI)

The MOWR Manufacturing Maintenance Technician certificate program prepares students to troubleshoot, repair, and maintain machinery in manufacturing environments. Emphasis is placed on applying electrical and mechanical concepts, using basic machine tool skills, and practicing practical problem solving techniques in an industrial setting.

## **Career Opportunities**

Graduates may find entry-level employment as maintenance technicians in a variety of settings that require automated manufacturing skills.

**Credit Required for Completion: Minimum of 24 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
	-or-	
_____	MATH 1013      Algebraic Concepts	(3)
	<i>Occupational Courses</i>	
_____	IDSY 1101      DC Circuit Analysis	3
_____	IDSY 1105      AC Circuit Analysis	3
_____	IDSY 1160      Mechanical Laws and Principles	4
_____	IDSY 1170      Industrial Mechanics	4
_____	IDSY 1260      Machine Tool for Industrial Repairs	4

# MOWR Manufacturing Production Assistant Certificate (MMP I)

The MOWR Manufacturing Production Assistant certificate program is designed to acquaint students with production manufacturing processes. The sequence of courses introduces systems and procedures associated with quality and productivity in the manufacturing environment, including lean manufacturing, statistical control, and process capability.

## **Career Opportunities**

*Graduates may find entry-level employment as production assistants in a variety of settings that require automated manufacturing skills.*

**Credit Required for Completion: Minimum of 17 credit hours**

## **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Basic Skills Courses</i>	
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
	-or-	
_____	MATH 1013      Algebraic Concepts	(3)
	<i>Occupational Courses</i>	
_____	AUMF 1560      Manufacturing Production Requirements	1
_____	IDSY 1240      Maintenance for Reliability	4
_____	MEGT 1010      Manufacturing Processes	3
_____	MEGT 2100      Manufacturing Quality Control	3

# Welding and Joining Technology

## Welding and Joining Technology Diploma (WAJ2)

The Welding and Joining Technology diploma program is designed to prepare students for careers in the welding industry. Program learning opportunities develop academic, technical, professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes welding theory and practical application necessary for successful employment.

### **Career Opportunities**

Graduates may find employment as oxyfuel cutters, oxyacetylene welders, shielded metal arc welders, GTAW(TIG) welders, GMAW(MIG) welders, automatic cutting machine operators or in related occupations.

**Credit Required for Graduation: Minimum of 54 credit hours**

### **Curriculum**

<b>Program Course</b>		<b>Credits</b>
<i>Basic Skills Courses</i>		
_____ EMPL 1000	Interpersonal Relations and Professional Development	2
_____ ENGL 1010	Fundamentals of English I	3
_____ MATH 1012	Foundations of Mathematics	3
<i>Occupational Courses</i>		
_____ COMP 1000	Introduction to Computers	3
_____ WELD 1000	Introduction to Welding Technology	4
_____ WELD 1010	Oxyfuel and Plasma Cutting	4
_____ WELD 1030	Blueprint Reading for Welding Technology	4
_____ WELD 1040	Flat Shielded Metal Arc Welding	4
_____ WELD 1050	Horizontal Shielded Metal Arc Welding	4
_____ WELD 1060	Vertical Shielded Metal Arc Welding	4
_____ WELD 1070	Overhead Shielded Metal Arc Welding	4
_____ WELD 1090	Gas Metal Arc Welding	4
_____ WELD 1110	Gas Tungsten Arc Welding	4
_____ WELD 1120	Preparation for Industrial Qualifications	4
<i>Occupational Electives (3 credits from the list below)</i>		
_____ WELD 1150	Advanced Gas Tungsten Arc Welding	3
_____ WELD 1153	Flux Cored Arc Welding	4
_____ WELD 1330	Metal Welding and Cutting Techniques	2

## Advanced Shielded Metal Arc Welder Certificate (OSMI)

The Advanced Shielded Metal Arc Welder certificate program is a continuation of the basic certificate. Successful completion of FS31: Basic Shielded Metal Arc Welder is a prerequisite to admission to this program. The advanced program provides instruction in shielded metal arc welding in the overhead, horizontal, and vertical positions.

**NOTE:** Welders need good eyesight, hand-eye coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods and be able to bend, stoop, and work in awkward positions. In addition, welders increasingly need to be willing to receive training and perform tasks in other production jobs.

### **Career Opportunities**

*Graduates are employable at an entry level in the welding field.*

**Credit Required for Completion: Minimum of 12 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	WELD 1050	Horizontal Shielded Metal Arc Welding	4
_____	WELD 1060	Vertical Shielded Metal Arc Welding	4
_____	WELD 1070	Overhead Shielded Metal Arc Welding	4

## Basic Shielded Metal Arc Welder Certificate (FS31)

The Basic Shielded Metal Arc Welder certificate program prepares students for careers in the welding and joining industry. This certificate emphasizes arc welding in the flat position and is prerequisite to the advanced certificate, OSMI: Advanced Shielded Metal Arc Welder.

### **Career Opportunities**

*Graduates are employable at an entry level in the welding field.*

**Credit Required for Completion: Minimum of 12 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	WELD 1000	Introduction to Welding Technology	4
_____	WELD 1010	Oxyfuel and Plasma Cutting	4
_____	WELD 1040	Flat Shielded Metal Arc Welding	4

# Gas Metal Arc Welder Certificate (GM31)

The Gas Metal Arc Welder certificate program prepares students for welding careers in the MIG process. Topics include an introduction to welding technology, oxyfuel cutting techniques, and MIG welding techniques and processes.

**NOTE:** Welders need good eyesight, hand-eye coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods and be able to bend, stoop, and work in awkward positions. In addition, welders increasingly need to be willing to receive training and perform tasks in other production jobs.

### **Career Opportunities**

*Graduates are employable at an entry level in the welding field.*

**Credit Required for Completion: Minimum of 16 credit hours**

### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	WELD 1000 Introduction to Welding Technology	4
_____	WELD 1010 Oxyfuel and Plasma Cutting	4
_____	WELD 1090 Gas Metal Arc Welding	4
	<i>Occupational Electives (4 credits from the list below)</i>	
_____	WELD 1030 Blueprint Reading for Welding Technology	4
_____	WELD 1040 Flat Shielded Metal Arc Welding	4
_____	WELD 1153 Flux Cored Arc Welding	4

# Gas Tungsten Arc Welder Certificate (GTAI)

The Gas Tungsten Arc Welder certificate program provides instruction in TIG welding techniques. Topics include understanding the nature and culture of the welding industry, oxyfuel cutting techniques, and TIG welding processes.

**NOTE:** Welders need good eyesight, hand-eye coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods and be able to bend, stoop, and work in awkward positions. In addition, welders increasingly need to be willing to receive training and perform tasks in other production jobs.

### **Career Opportunities**

*Graduated may find employment as entry-level gas tungsten arc welders or related positions in the welding field.*

**Credit Required for Completion: Minimum of 16 credit hours**

### **Curriculum**

	<b>Program Course</b>		<b>Credits</b>
	<i>Occupational Courses</i>		
_____	WELD 1000	Introduction to Welding Technology	4
_____	WELD 1010	Oxyfuel and Plasma Cutting	4
_____	WELD 1110	Gas Tungsten Arc Welding	4
	<i>Occupational Electives (4 credits from the list below)</i>		
_____	WELD 1030	Blueprint Reading for Welding Technology	4
_____	WELD 1040	Flat Shielded Metal Arc Welding	4
_____	WELD 1153	Flux Cored Arc Welding	4

# MOWR Basic Shielded Metal Arc Welder Certificate (MB3 I)

The MOWR Basic Shielded Metal Arc Welder certificate program prepares students for careers in the welding and joining industry. This certificate emphasizes arc welding in the flat position and is prerequisite to the advanced certificate.

## **Career Opportunities**

*Graduates may find entry-level employment in the welding field.*

## **Credit Required for Completion: Minimum of 18 credit hours**

<b>Curriculum</b>		
<b>Program Course</b>		<b>Credits</b>
<i>Occupational Courses</i>		
_____ ENGL 1010	Fundamentals of English I	3
_____ MATH 1012	Foundations of Mathematics	3
_____ WELD 1000	Introduction to Welding Technology	4
_____ WELD 1010	Oxyfuel and Plasma Cutting	4
_____ WELD 1040	Flat Shielded Metal Arc Welding	4



# MOWR Gas Metal Arc Welder Certificate (MGMI)

The MOWR Gas Metal Arc Welder certificate program prepares students for welding careers in the MIG process. Topics include an introduction to welding technology, oxyfuel cutting techniques, and MIG welding techniques and processes.

## **Career Opportunities**

*Graduates may find entry-level employment in the welding field.*

## **Credit Required for Completion: Minimum of 21 credit hours**

<b>Curriculum</b>		
<b>Program</b>	<b>Course</b>	<b>Credits</b>
<i>Occupational Courses</i>		
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	WELD 1000      Introduction to Welding Technology	4
_____	WELD 1010      Oxyfuel and Plasma Cutting	4
_____	WELD 1090      Gas Metal Arc Welding	4
<i>Occupational Electives (3 credits from the list below)</i>		
_____	WELD 1030      Blueprint Reading for Welding Technology	4
_____	WELD 1040      Flat Shielded Metal Arc Welding	4
_____	WELD 1153      Flux Cored Arc Welding	4

# MOWR Gas Tungsten Arc Welder Certificate (MGTI)

The MOWR Gas Tungsten Arc Welder certificate program provides instruction in TIG welding techniques. Topics include understanding the nature and culture of the welding industry, oxyfuel cutting techniques, and TIG welding processes.

## **Career Opportunities**

Graduates may find entry-level employment as drafter's assistants with manufacturing industries, engineering, or related service firms.

## **Credit Required for Completion: Minimum of 21 credit hours**

<b>Curriculum</b>		
<b>Program</b>	<b>Course</b>	<b>Credits</b>
<i>Occupational Courses</i>		
_____	ENGL 1010      Fundamentals of English I	3
_____	MATH 1012      Foundations of Mathematics	3
_____	WELD 1000      Introduction to Welding Technology	4
_____	WELD 1010      Oxyfuel and Plasma Cutting	4
_____	WELD 1110      Gas Tungsten Arc Welding	4
<i>Occupational Electives (4 credits from the list below)</i>		
_____	WELD 1030      Blueprint Reading for Welding Technology	4
_____	WELD 1040      Flat Shielded Metal Arc Welding	4
_____	WELD 1153      Flux Cored Arc Welding	4

# Pipe Welder Certificate (PW I I)

The Pipe Welder certificate program provides instruction in the specialized field of pipe welding. A good understanding and skill base is essential for the completion of this program; completion of welding diploma (or all certificates in SMAW, GMAW, and GTAW) is required for admission to this program. Topics include advanced gas tungsten arc welding practices, fabrication practices, and pipe welding techniques.

### **Career Opportunities**

*Graduates may find employment as pipe welders, pipe fitters, boilermaker apprentices, plumber apprentices, process pipe welders in food production, oil rig welders, or pipeline maintenance welders*

### **Credit Required for Completion: Minimum of 9 credit hours**

#### **Curriculum**

	<b>Program Course</b>	<b>Credits</b>
	<i>Occupational Courses</i>	
_____	WELD 1150    Advanced Gas Tungsten Arc Welding	3
_____	WELD 1151    Fabrication Processes	3
_____	WELD 1152    Pipe Welding	4