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## Developmental Courses

Blue Ridge Community College provides an opportunity for students to strengthen their basic educational background. Through a series of courses, instruction is provided to help the student overcome educational deficiencies that would likely prevent him/her from succeeding in an associate degree or diploma program. Developmental courses are offered in the areas of reading and vocabulary development, grammar and composition, keyboarding, biology, chemistry, and mathematics.

Incoming students are given a series of pre-enrollment placement tests to determine if any of these courses will be prerequisites to their related coursework. Students should take prerequisites in their first semester of enrollment if possible. Certain programs require that prerequisite courses be completed prior to fall enrollment. In addition, OST 131 may be required if a student has little or no experience with the keyboard and cannot type at least 20 words per minute. For these students OST 131 is considered a developmental course notwithstanding the 100 level designation.

Developmental and prerequisite courses include:

BIO 090	Foundations of Biology
CHM 092	Fundamentals of Chemistry
CIS 070	Fundamentals of Computing
DRE 097	Integrated Reading and Writing II
DRE 098	Integrated Reading and Writing III
DRE 099	Integrated Reading and Writing III
DMA 010	Operations with Integers
DMA 020	Fractions and Decimals
DMA 030	Proportion/Ratios/Rates/Percents
DMA 040	Expressions, Linear Equations, Linear Inequalities
DMA 050	Graphs and Equations of Lines
DMA 060	Polynomials and Quadratic Applications
DMA 070	Rational Expressions and Equations
DMA 080	Radical Expressions and Equations
OST 131	Keyboarding

A student must earn a "C" or better to progress to the next class.

## Language Prerequisite Courses

Students desiring to take French or Spanish in their program of study may be required to take one of the prerequisite courses listed below. This requirement is waived if the student has completed one unit of high school French or Spanish.

FRE 110	Introduction to French
SPA 110	Introduction to Spanish

## Electives

The Associate in Arts, Associate in Engineering, Associate in Fine Arts, and Associate in Science elective listings are listed with the program description.

## Associate in Applied Science Humanities Electives

The following listings for Humanities Electives apply to Associate in Applied Science degree-seeking students. These electives should be carefully selected with the faculty advisor to ensure proper credit. Some programs of study have specific courses that meet the humanities elective requirement. ASL, foreign language, and public speaking courses cannot count as the sole humanities course in an associate in applied science program.

ART 111	Art Appreciation
ART 114	Art History Survey I
ART 115	Art History Survey II
DRA 111	Theatre Appreciation
DRA 112	Literature of the Theatre
ENG 231	American Literature I
ENG 232	American Literature II
ENG 233	Major American Writers
ENG 241	British Literature I
ENG 242	British Literature II
ENG 252	Western World Literature
ENG 262	World Literature II
HUM 123	Appalachian Culture
MUS 110	Music Appreciation
PHI 210	History of Philosophy
PHI 230	Introduction to Logic
PHI 240	Introduction to Ethics
REL 110	World Religions
REL 211	Intro to Old Testament
REL 212	Intro to New Testament
REL 221	Religion in America

## Associate in Applied Science Social/Behavioral Science Electives

The following listing for Social/Behavioral Science Electives applies to Associate in Applied Science degree-seeking students. These electives should be carefully selected with the faculty advisor to ensure proper credit. Some programs of study have specific courses that meet the social/behavioral science elective requirement.

ANT 210	General Anthropology
ECO 151	Survey of Economics
ECO 251	Principles of Microeconomics
ECO 252	Principles of Macroeconomics
GEO 111	World Regional Geography
HIS 111	World Civilizations I
HIS 112	World Civilizations II
HIS 131	American History I
HIS 132	American History II
POL 120	American Government
POL 130	State and Local Government
PSY 150	General Psychology
PSY 237	Social Psychology
PSY 241	Developmental Psychology
PSY 281	Abnormal Psychology
SOC 210	Introduction to Sociology
SOC 213	Sociology of the Family
SOC 220	Social Problems

## Accounting (A25100) - Online Option available Associate in Applied Science Degree

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work Credit	Exp.
<b>Fall Semester</b>						
ACA	115	Success and Study Skills	0	2	0	0 1
ACC	120	Prin of Financial Accounting	3	2	0	0 4
BUS	110	Introduction to Business	3	0	0	0 3
CIS	110	Introduction to Computers	2	2	0	0 3
Either						
MAT	143	Quantitative Literacy	2	2	0	0 3
Or						
MAT	152	Statistical Methods I	3	2	0	0 4
Subtotal						(14-15)
<b>Spring Semester</b>						
ACC	122	Prin of Financial Acct II	3	0	0	0 3
ACC	140	Payroll Accounting	1	2	0	0 2
Either						
BUS	280	REAL Small Business	4	0	0	0 4
Or						
Major Course Elective***						3
Either						
ECO	151	Survey of Economics	3	0	0	0 3
Or						
ECO	251	Principles of Microeconomics	3	0	0	0 3
ENG	111	Writing and Inquiry	3	0	0	0 3
Subtotal						(14 -15)
<b>Summer Term</b>						
CTS	130	Spreadsheet	2	2	0	0 3
ENG	114	Prof. Research and Reporting	3	0	0	0 3
Humanities Elective**						3
Subtotal						(9)

<b>Fall Semester</b>						
ACC	121	Prin of Managerial Accounting	3	2	0	0 4
ACC	129	Individual Income Taxes	2	2	0	0 3
ACC	220	Intermediate Accounting I	3	2	0	0 4
BUS	115	Business Law I	3	0	0	0 3
Major Course Elective***						3
Subtotal						(17)

<b>Spring Semester</b>						
ACC	150	Accounting Software App	1	2	0	0 2
ACC	227	Practices in Accounting	3	0	0	0 3
BUS	225	Business Finance	2	2	0	0 3
WBL	111	Work-Based Learning I	0	0	0	10 1
Social/Behavioral Science Elective**						3
Subtotal						(12)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BAF	110	Principles of Banking	3	0	0	0 3
BUS	116	Business Law II	3	0	0	0 3
BUS	137	Principles of Management	3	0	0	0 3
BUS	153	Human Resource Management	3	0	0	0 3
BUS	228	Business Statistics	2	2	0	0 3
BUS	240	Business Ethics	3	0	0	0 3
DBA	110	Database Concepts	2	3	0	0 3
MKT	120	Principles of Marketing	3	0	0	0 3
OST	136	Word Processing	2	2	0	0 3
RLS	112	Broker Prelicensing	5	0	0	0 5

**Total Semester Credit Hours in Program .....66-68**

## Basic Accounting – Bookkeeping (C25100B) - Online Option Available Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work Credit	Exp.
<b>Fall Semester</b>						
ACC	120	Prin of Financial Accounting	3	2	0	0 4
ACC	129	Individual Income Taxes	2	2	0	0 3
CIS	110	Introduction to Computers	2	2	0	0 3
Subtotal						(10)
<b>Spring Semester</b>						
ACC	122	Prin of Financial Acct II	3	0	0	0 3
ACC	140	Payroll Accounting	1	2	0	0 2
ACC	150	Accounting Software App	1	2	0	0 2
Subtotal						(7)

**Total Semester Credit Hours in Program .....17**



## Alternative Transportation Technology (D60420) Diploma

Mobile Equipment Maintenance and Repair Pathway  
Description: Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

Alternative Transportation Technology program description: The Alternative Transportation Technology program prepares individuals to apply technical knowledge and skills to the maintenance of alternative fuel vehicles (AFV), hybrid electric vehicles and the conversion of standard vehicles to AFV status. Topics includes instruction in electrical vehicles, hybrid electric vehicles, liquefied petroleum gas (LPG) vehicles, compressed natural gas (CNG) vehicles, hybrid fuel technology, electrical and electronic systems, engine performance, diagnosis and repair, and conversion/installation.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
ATT 115	Green Trans Safety and Service	1	2	0	0	2
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 130	Intro to Sustainable Transport	2	2	0	0	3
TRN 170	PC Skills for Transport	1	2	0	0	2
TRN 180	Basic Welding for Transport	1	4	0	0	3
Subtotal						(18)

### Spring Semester

ATT 130	Biofuels for Transportation	2	3	0	0	3
ATT 135	Gaseous Fuels for Transport	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
TRN 140	Transport Climate Control	1	2	0	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	0	2
Subtotal						(13)

### Summer Term

ATT 125	Hybrid-Electric Transportation	2	4	0	0	4
ATT 140	Emerging Transport Tech	2	3	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
TRN 145	Adv Transportation Electronics	2	3	0	0	3
Subtotal						(13)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 44**

## Alternative Transportation Technology – Advanced Electric Drive (C60420AE) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

### Fall Semester

TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 170	PC Skills for Transport	1	2	0	0	2
Subtotal						(9)

### Spring Semester

ATT 125	Hybrid-Electric Transportation	2	4	0	0	4
TRN 145	Adv Transportation Electronics	2	3	0	0	3
Subtotal						(7)

**Total Semester Credit Hours in Program ..... 16**

## Alternative Transportation Technology – Alternative Fuels (C60420AF) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

### Fall Semester

TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 130	Intro to Sustainable Trans	2	2	0	0	3
Subtotal						(10)

### Spring Semester

ATT 115	Green Trans Safety and Service	1	1	0	0	2
ATT 135	Gaseous Fuels for Trans	2	3	0	0	3
ATT 140	Emerging Transport Tech	2	3	0	0	3
Subtotal						(8)

**Total Semester Credit Hours in Program ..... 18**

**Students may earn additional certificates in the Mobile Equipment Maintenance and Repair Pathway programs. Speak to your faculty advisor for more information.**

## Associate Degree Nursing (A45110)

### Associate in Applied Science Degree

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Special admission procedures for the Associate Degree Nursing program are outlined on page 9.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
BIO	165	Anatomy and Physiology I	3	3	0	0	4	
ENG	111	Writing and Inquiry	3	0	0	0	3	
NUR	111	Intro To Health Concepts	4	6	6	0	8	
		Subtotal						(16)
<b>Spring Semester</b>								
BIO	166	Anatomy and Physiology II	3	3	0	0	4	
NUR	112	Health-Illness Concepts	3	0	6	0	5	
NUR	211	Health Care Concepts	3	0	6	0	5	
PSY	150	General Psychology	3	0	0	0	3	
		Subtotal						(17)
<b>Summer Term</b>								
BIO	175	General Microbiology	2	2	0	0	3	
NUR	114	Holistic Health Concepts	3	0	6	0	5	
PSY	241	Developmental Psychology	3	0	0	0	3	
		Subtotal						(11)
<b>Fall Semester</b>								
ENG	114	Profes Research and Reporting	3	0	0	0	3	
NUR	113	Family Health Concepts	3	0	6	0	5	
NUR	212	Health System Concepts	3	0	6	0	5	
		Humanities Elective**					3	
		Subtotal						(16)
<b>Spring Semester</b>								
NUR	213	Complex Health Concepts	4	3	15	0	10	
		Subtotal						(10)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 70**

## Automotive Light-Duty Diesel Technology (D60430) Diploma

Mobile Equipment Maintenance and Repair Pathway  
Description: Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

Automotive Light-Duty Diesel program description: The Automotive Light-Duty Diesel program prepares individuals to apply technical knowledge and skills to diagnose, adjust, repair, or overhaul light duty diesel vehicles under one ton classification. Topics include instruction in electrical systems, diesel-electric drive, engine performance, engine repair, emission systems, and all types of diesel engines related to the light duty diesel vehicle. Program includes technicians working primarily with automobile diesel engines.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit	
					Exp.		
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
LDD	112	Intro to Light-Duty Diesel	2	2	0	0	3
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	120	Basic Transport Electricity	4	3	0	0	5
TRN	170	PC Skills for Transport	1	2	0	0	2
TRN	180	Basic Welding for Transport	1	4	0	0	3
		Subtotal					(16)
<b>Spring Semester</b>							
ENG	111	Writing and Inquiry	3	0	0	0	3
HET	134	Diesel Fuel & Power Systems	2	3	0	0	3
LDD	181	LDD Fuel Systems	2	6	0	0	4
LDD	183	Air, Exhaust, Emissions	2	6	0	0	4
TRN	140	Transport Climate Control	1	2	0	0	2
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2
		Subtotal					(18)
<b>Summer Term</b>							
LDD	116	Diesel Electric Drive	2	6	0	0	4
LDD	284	LDD Test and Diagnosis	2	3	0	0	3
MAT	110	Math Measurement & Literacy	2	2	0	0	3
		Subtotal					(10)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 44**

## Automotive Light-Duty Diesel Technology – Light-Duty Diesel Fuel Systems (C60430LF) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
LDD	112	Intro Light-Duty Diesel	2	2	0	0	3	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	
		Subtotal						(10)
<b>Spring Semester</b>								
HET	134	Diesel Fuel & Power Systems	2	3	0	0	3	
LDD	181	LDD Fuel Systems	2	6	0	0	4	
		Subtotal						(7)

**Total Semester Credit Hours in Program ..... 17**

## Automotive Light-Duty Diesel Technology – Light-Duty Diesel Performance (C60430LD) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	170	PC Skills for Transport	1	2	0	0	2	
TRN	180	Basic Welding for Transport	1	4	0	0	3	
		Subtotal						(7)
<b>Spring Semester</b>								
HET	134	Diesel Fuel & Power Systems	2	3	0	0	3	
LDD	183	Air, Exhaust, Emissions	2	6	0	0	4	
		Subtotal						(7)
<b>Summer Term</b>								
LDD	284	LDD Test and Diagnosis	2	3	0	0	3	
		Subtotal						(3)

**Total Semester Credit Hours in Program ..... 17**

**Students may earn additional certificates in the Mobile Equipment Maintenance and Repair Pathway programs. Speak to your faculty advisor for more information.**



## Automotive Systems Technology (A60160) Associate in Applied Science Degree

Mobile Equipment Maintenance and Repair Pathway  
Description: Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

Automotive Systems Technology program description: The automotive systems program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Topics include instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
AUT 151	Brake Systems	2	3	0	0	3
AUT 151A	Brake Systems Lab*	0	3	0	0	1
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 170	PC Skills for Transport	1	2	0	0	2
TRN 180	Basic Welding for Transport	1	4	0	0	3
	Subtotal					(17)

<b>Spring Semester</b>						
AUT 141	Suspension & Steering Sys	2	3	0	0	3
AUT 141A	Suspension & Steering Lab*	0	3	0	0	1
AUT 181	Engine Performance 1	2	3	0	0	3
AUT 181A	Engine Performance 1 Lab*	0	3	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(14)

<b>Summer Term</b>						
AUT 183	Engine Performance 2	2	6	0	0	4
MAT 110	Math Measurement & Literacy	2	2	0	0	3
TRN 140	Transport Climate Control	1	2	0	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	0	2
	Subtotal					(11)

<b>Fall Semester</b>						
AUT 116	Engine Repair	2	3	0	0	3
AUT 116A	Engine Repair Lab*	0	3	0	0	1
AUT 163	Adv Auto Electricity	2	3	0	0	3
ENG 114	Prof Research and Reporting	3	0	0	0	3
	Major Course Elective***					3
	Subtotal					(13)

<b>Spring Semester</b>						
AUT 221	Auto Transm/Transaxles	2	3	0	0	3
AUT 231	Manual Trans/Axles/Drtrains	2	3	0	0	3
AUT 231A	Manual Trans/Axles/Drtrains Lab*0	3	0	0	0	1
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(13)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ATT 125	Hybrid-Electric Transportation	2	4	0	0	4
AUT 113	Automotive Servicing I	0	6	0	0	2
AUT 163A	Adv Auto Electricity Lab*	0	3	0	0	1
AUT 213	Automotive Servicing 2	1	3	0	0	2
AUT 221A	Auto Transm/Transaxles Lab*	0	3	0	0	1
HET 134	Diesel Fuel & Power Systems	2	3	0	0	3
LDD 112	Intro to Light Duty Diesel	2	2	0	0	3
TRN 120A	Basic Transport Electricity Lab*	0	3	0	0	1
TRN 130	Intro to Sustain Transportation	2	2	0	0	3
TRN 145	Adv Transp Electronics	2	3	0	0	3
TRN 180A	Basic Weld for Transport Lab*	0	3	0	0	1
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 131	Work-Based Learning III	0	0	0	10	1

**Total Semester Credit Hours in Program .....68**

## Automotive Systems Technology (D60160) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
AUT 151	Brake Systems	2	3	0	0	3
AUT 151A	Brake Systems Lab*	0	3	0	0	1
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 170	PC Skills for Transport	1	2	0	0	2
TRN 180	Basic Welding for Transport	1	4	0	0	3
	Subtotal					(17)

<b>Spring Semester</b>						
AUT 141	Suspension & Steering Sys	2	3	0	0	3
AUT 141A	Suspension & Steering Lab*	0	3	0	0	1
AUT 181	Engine Performance 1	2	3	0	0	3
AUT 181A	Engine Performance 1 Lab*	0	3	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
	Major Course Elective***					2
	Subtotal					(13)

**Summer Term**

AUT	183	Engine Performance 2	2	6	0	0	4
MAT	110	Math Measurement & Literacy	2	2	0	0	3
TRN	140	Transport Climate Control	1	2	0	0	2
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2
Subtotal							(11)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*\*Major Course Electives are to be selected from the following:

ATT	125	Hybrid-Electric Transportation	2	4	0	0	4
AUT	113	Automotive Servicing I	0	6	0	0	2
AUT	163	Adv Auto Electricity	2	3	0	0	3
AUT	163A	Adv Auto Electricity Lab*	0	3	0	0	1
AUT	213	Automotive Servicing 2	1	3	0	0	2
HET	134	Diesel Fuel & Power Systems	2	3	0	0	3
LDD	112	Intro to Light Duty Diesel	2	2	0	0	3
TRN	120A	Basic Transport Electricity Lab*	0	3	0	0	1
TRN	130	Intro to Sustain Transportation	2	2	0	0	3
TRN	145	Adv Transp Electronics	2	3	0	0	3
TRN	180A	Basic Weld for Transport Lab*	0	3	0	0	1
WBL	111	Work-Based Learning I	0	0	0	10	1
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	131	Work-Based Learning III	0	0	0	10	1

**Total Semester Credit Hours in Program ..... 41**

**Automotive Systems Technology – Mobile Equipment Technician (C60160MT) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Required Courses**

TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	120	Basic Transport Electricity	4	3	0	0	5
TRN	140	Transport Climate Control	1	2	0	0	2
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2
TRN	170	PC Skills for Transport	1	2	0	0	2
TRN	180	Basic Welding for Transport	1	4	0	0	3

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 16**

**Automotive Systems Technology – Chassis Technician (C60160CT) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Required Courses**

AUT	141	Suspension & Steering Sys	2	3	0	0	3
AUT	141A	Suspension & Steering Lab*	0	3	0	0	1
AUT	151	Brake Systems	2	3	0	0	3
AUT	151A	Brake Systems Lab*	0	3	0	0	1
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	120	Basic Transport Electricity	4	3	0	0	5
TRN	170	PC Skills for Transport	1	2	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 17**

**Automotive Systems Technology – Electrical/Electronic Technician (C60160ET) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Required Courses**

ATT	125	Hybrid-Electric Transportation	2	4	0	0	4
AUT	163	Advanced Auto Electricity	2	3	0	0	3
AUT	163A	Advanced Auto Electricity Lab*	0	3	0	0	1
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	120	Basic Transport Electricity	4	3	0	0	5
TRN	170	PC Skills for Transport	1	2	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 17**

## Automotive Systems Technology – Engine Performance (C60160EN) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUT	181	Engine Performance 1	2	3	0	0	3
AUT	181A	Engine Performance 1 Lab*	0	3	0	0	1
AUT	183	Engine Performance 2	2	6	0	0	4
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	120	Basic Transport Electricity	4	3	0	0	5
TRN	170	PC Skills for Transport	1	2	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 17**

## Automotive Systems Technology – Driveline Performance Certification (C60160DR) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUT	113	Automotive Servicing I	0	6	0	0	2
AUT	116	Engine Repair	2	3	0	0	3
AUT	116A	Engine Repair Lab*	0	3	0	0	1
AUT	221	Auto Transm/Transaxles	2	3	0	0	3
AUT	221A	Auto Transm/Transaxles Lab*	0	3	0	0	1
AUT	231	Man Trans/Axles/Drtrains	2	3	0	0	3
AUT	231A	Man Trans/Axles/Drtrains Lab*	0	3	0	0	1
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	170	PC Skills for Transport	1	2	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 18**

**Students may earn additional certificates in the Mobile Equipment Maintenance and Repair Pathway programs. Speak to your faculty advisor for more information.**

## Brewing, Distillation and Fermentation – Brewing Equipment, Packaging & Maintenance (A15250)

### Associate in Applied Science Degree

Food Products and Processing Systems Pathway Description: This curriculum is designed to prepare individuals for various careers in the brewing, distillation and fermentation industry. Classroom instruction, practical laboratory applications of brewing, distillation and fermentation principles and practices are included in the program of study.

Course work in brewing, distillation and fermentation includes production, operations, safety and sanitation, and associated process technologies. Related course work is offered in fermentation production, safety and sanitation, applied craft beverage microbiology, agriculture, marketing, management, equipment, packaging, and maintenance.

Graduates should qualify for employment opportunities in the brewing, distillation and fermentation industry. Students may be eligible to sit for the professional Institute of Brewing & Distilling (IBD) certification exams which correspond to the program of study.

Brewing, Distillation and Fermentation Pathway Description: A program that prepares individuals to apply technical knowledge and skills to brew, distill and ferment various products, including beverages. Includes instruction in production of fermented products, cultivating, marketing, management, legal issues, inspection, maintenance, service and repair of equipment, facility operations, packaging, sanitation, and welding.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BDF 112	Survey of Fermented Products	3	3	0	0	4
BDF 125	Bev Tech & Calculations	1	3	0	0	2
ELC 131	Circuit Analysis I	3	3	0	0	4
HYD 110	Hydraulics/Pneumatics I	2	3	0	0	3
MNT 110	Intro to Maint Procedures	1	3	0	0	2
	Subtotal					(16)

#### Spring Semester

BDF 110	Fermentation Production	2	4	0	0	4
BDF 111	BDF Safety & Sanitation	1	2	0	0	2
BDF 115	Applied Craft Bev Microbiology	3	2	0	0	4
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Subtotal					(16)

#### Summer Term

BDF 180	Sensory Evaluation	2	2	0	0	3
	Humanities Elective**					3
	Subtotal					(6)

#### Fall Semester

ATR 112	Introduction to Automation	2	3	0	0	3
BDF 114	Craft Beer Brewing	1	3	0	0	2
ELC 128	Introduction to PLC	2	3	0	0	3
ENG 114	Prof Research and Reporting	3	0	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3
	Major Course Elective***					3
	Subtotal					(17)

#### Spring Semester

BDF 225	Filtration & Finishing	2	2	0	0	3
BDF 236	Brewing/Packaging Maint	2	4	0	0	4
BUS 110	Introduction to Business	3	0	0	0	3
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(16)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ATR 219	Automation Troubleshooting	1	3	0	0	2
BDF 175	Distillation Operations	2	4	0	0	4
BDF 230	Advanced Brewing	2	2	0	0	3
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Intro to Chemistry Lab*	0	3	0	0	1
EGR 125	Appl Software for Tech	1	2	0	0	2
ELC 117	Motors and Controls	2	6	0	0	4
ELC 228	PLC Applications	2	6	0	0	4
REF 211	Glycol Chiller Systems	2	4	0	0	4
VEN 133	Intro to Winemaking	3	0	0	0	3
VEN 283	Wine Production and Analysis	2	6	0	0	5
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 131	Work-Based Learning III	0	0	0	10	1
WLD 214	Sanitary Welding	2	6	0	0	4

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 71**

## Brewing, Distillation and Fermentation – Brewing Equipment, Packaging & Maintenance (D15250) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BDF 112	Survey of Fermented Products	3	3	0	0	4
ELC 128	Introduction to PLC	2	3	0	0	3
ELC 131	Circuit Analysis I	3	3	0	0	4
HOR 245	Hort Specialty Crops	2	2	0	0	3
MNT 110	Intro to Maint Procedures	1	3	0	0	2
	Subtotal					(17)



**Spring Semester**

BDF 110	Fermentation Production	2	4	0	0	4
BDF 111	BDF Safety & Sanitation	1	2	0	0	2
BDF 115	Applied Craft Bev Microbiology	3	2	0	0	4
BUS 110	Introduction to Business	3	0	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Subtotal					(16)

**Summer Term**

ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(7)

**Total Semester Credit Hours in Program ..... 36**

**Brewing, Distillation and Fermentation –  
Equipment, Packaging & Maintenance  
(C15250EQ)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Required Courses**

ATR 112	Introduction to Automation	2	3	0	0	3
BDF 111	BDF Safety & Sanitation	1	2	0	0	2
BDF 236	Brewing/Packaging Maint	2	4	0	0	4
HYD 110	Hydraulics/Pneumatics I	2	3	0	0	3
MNT 110	Intro to Maint Procedures	1	3	0	0	2

**Total Semester Credit Hours in Program ..... 14**

**Brewing, Distillation and Fermentation –  
Brewing Basics (C15250BR)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Required Courses**

BDF 111	BDF Safety & Sanitation	1	2	0	0	2
BDF 114	Craft Beer Brewing	1	3	0	0	2
BDF 115	Applied Craft Bev Microbiology	3	2	0	0	4
BDF 125	Bev Tech & Calculations	1	3	0	0	2
BDF 180	Sensory Evaluation	2	2	0	0	3
BDF 225	Filtration & Finishing	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 16**

**Brewing, Distillation and Fermentation –  
Winemaking Basics (C15250WN)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Required Courses**

BDF 111	BDF Safety & Sanitation	1	2	0	0	2
BDF 115	Applied Craft Bev Microbiology	3	2	0	0	4
VEN 133	Intro to Winemaking	3	0	0	0	3
VEN 283	Wine Production and Analysis	2	6	0	0	5

**Total Semester Credit Hours in Program ..... 14**

**Brewing, Distillation and Fermentation –  
Distillation (C15250DI)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Required Courses**

BDF 110	Fermentation Production	2	4	0	0	4
BDF 115	Applied Craft Bev Microbiology	3	2	0	0	4
BDF 125	Bev Tech & Calculations	1	3	0	0	2
BDF 175	Distillation Operations	2	4	0	0	4
BDF 225	Filtration & Finishing	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 17**



## Business Administration (A25120) Associate in Applied Science Degree

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision-making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit	
					Exp.		
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
ACC	120	Prin of Financial Accounting	3	2	0	0	4
BUS	110	Introduction to Business	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
MAT	143	Quantitative Literacy	2	2	0	0	3
	Or						
MAT	152	Statistical Methods I	3	2	0	0	4
		Subtotal					(14-15)

<b>Spring Semester</b>							
ACC	122	Prin of Financial Accounting II	3	0	0	0	3
BUS	137	Principles of Management	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
		Major Course Elective***					4
		Humanities Elective**					3
		Subtotal					(16)

<b>Summer Term</b>							
BUS	240	Business Ethics	3	0	0	0	3
ENG	114	Prof. Research and Reporting	3	0	0	0	3
		Social/Behavioral Science Elective**					3
		Subtotal					(9)

<b>Fall Semester</b>							
BUS	115	Business Law I	3	0	0	0	3
ECO	251	Principles of Microeconomics	3	0	0	0	3
MKT	120	Principles of Marketing	3	0	0	0	3
WBL	111	Work-Based Learning I	0	0	0	10	1
		Major Course Elective***					3
		Subtotal					(13)

<b>Spring Semester</b>							
ACC	140	Payroll Accounting	1	2	0	0	2
BUS	116	Business Law II	3	0	0	0	3
BUS	225	Business Finance	2	2	0	0	3
BUS	239	Business Applications Seminar	1	2	0	0	2
ECO	252	Principles of Macroeconomics	3	0	0	0	3
		Subtotal					(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ACC	121	Principles of Managerial Acct II	3	2	0	0	4
ACC	129	Individual Income Taxes	2	2	0	0	3
ACC	150	Acct Software Appl	1	2	0	0	2
BUS	153	Human Resource Management	3	0	0	0	3
BUS	228	Business Statistics	2	2	0	0	3
BUS	270	Professional Development	3	0	0	0	3
BUS	280	REAL Small Business	4	0	0	0	4
CTS	130	Spreadsheet	2	2	0	0	3
DBA	110	Database Concepts	2	3	0	0	3
ECM	210	Introduction to E-Commerce	2	2	0	0	3
MKT	123	Fundamentals of Selling	3	0	0	0	3
RLS	112	Broker Prelicensing	5	0	0	0	5
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	122	Work-Based Learning II	0	0	0	20	2
WBL	123	Work-Based Learning II	0	0	0	30	3
WBL	124	Work-Based Learning II	0	0	0	40	4
WBL	131	Work-Based Learning III	0	0	0	10	1
WBL	132	Work-Based Learning III	0	0	0	20	2
WBL	212	Work-Based Learning IV	0	0	0	20	2
WEB	110	Internet/Web Fundamentals	2	2	0	0	3

**Total Semester Credit Hours in Program .....65-66**

## Business Administration – Basic (C25120BA) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

<b>Fall Semester</b>							
BUS	110	Introduction to Business	3	0	0	0	3
MKT	120	Principles of Marketing	3	0	0	0	3
		Subtotal					(6)

<b>Spring Semester</b>							
BUS	137	Principles of Management	3	0	0	0	3
CIS	110	Introduction to Computers	2	2	0	0	3
BUS	115	Business Law I	3	0	0	0	3
		Subtotal					(9)

**Total Semester Credit Hours in Program ..... 15**

## Business Administration/ Banking and Finance (A2512A) Associate in Applied Science Degree

Banking and Finance is a concentration under the curriculum title of Business Administration. This curriculum is designed to prepare individuals for a career with various financial institutions and other businesses. Course work includes principles of banking, money and banking, lending fundamentals, banking and business law, and practices in the areas of marketing, management, accounting, and economics. Graduates should qualify for a variety of entry-level jobs in banking and finance. Also available are employment opportunities with insurance, brokerage and mortgage companies, and governmental lending agencies.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
ACC 120	Prin of Financial Accounting	3	2	0	0	4
BAF 110	Principles of Banking	3	0	0	0	3
BUS 110	Introduction to Business	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
	Subtotal					(14)

### Spring Semester

BAF 131	Fund of Bank Lending	3	0	0	0	3
BUS 137	Principles of Management	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(15)

### Summer Term

BUS 240	Business Ethics	3	0	0	0	3
ENG 114	Prof. Research and Reporting	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
	Social/Behavioral Science Elective**					3
	Subtotal					(12)

### Fall Semester

BUS 115	Business Law I	3	0	0	0	3
ECO 251	Principles of Microeconomics	3	0	0	0	3
MKT 120	Principles of Marketing	3	0	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Major Course Elective***					3
	Subtotal					(13)

### Spring Semester

BAF 141	Law & Banking Principles	3	0	0	0	3
BAF 222	Money and Banking	3	0	0	0	3
BUS 225	Business Finance	2	2	0	0	3
BUS 239	Business Applications Seminar	1	2	0	0	2
ECO 252	Principles of Macroeconomics	3	0	0	0	3
	Subtotal					(14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BUS 116	Business Law II	3	0	0	0	3
BUS 125	Personal Finance	3	0	0	0	3
BUS 153	Human Resource Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
BUS 270	Professional Development	3	0	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
MKT 123	Fundamentals of Selling	3	0	0	0	3
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 122	Work-Based Learning II	0	0	0	20	2
WBL 123	Work-Based Learning II	0	0	0	30	3
WBL 124	Work-Based Learning II	0	0	0	40	4

**Total Semester Credit Hours in Program .....68**

## Business Administration/ Marketing and Retailing (A2512F)

### Associate in Applied Science Degree

Marketing and Retailing is a concentration under the curriculum title of Business Administration. This curriculum is designed to provide students with fundamental skills in marketing and retailing. Course work includes marketing, retailing, merchandising, selling, advertising, computer technology, and management.

Graduates should qualify for marketing positions within manufacturing, retailing, and service organizations.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
BUS	110	Introduction to Business	3	0	0	0	3	
CIS	110	Introduction to Computers	2	2	0	0	3	
ENG	111	Writing and Inquiry	3	0	0	0	3	
MKT	120	Principles of Marketing	3	0	0	0	3	
		Subtotal					(13)	
<b>Spring Semester</b>								
ACC	120	Princip of Financial Accounting	3	2	0	0	4	
ENG	114	Prof. Research and Reporting	3	0	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	0	3	
MKT	123	Fundamentals of Selling	3	0	0	0	3	
		Subtotal					(13)	
<b>Summer Term</b>								
MKT	122	Visual Merchandising	3	0	0	0	3	
		Humanities Elective**					3	
		Social/Behavioral Science Elective**					3	
		Major Course Elective***					3	
		Subtotal					(12)	
<b>Fall Semester</b>								
BUS	115	Business Law I	3	0	0	0	3	
ECO	251	Principles of Microeconomics	3	0	0	0	3	
MKT	220	Advertising and Sales Promotion	3	0	0	0	3	
MKT	222	Credit Procedures	3	0	0	0	3	
WEB	115	Web Markup and Scripting	2	2	0	0	3	
		Subtotal					(15)	
<b>Spring Semester</b>								
ACC	150	Acct Software Application	1	2	0	0	2	
BUS	137	Principles of Management	3	0	0	0	3	
MKT	223	Customer Service	3	0	0	0	3	
MKT	225	Marketing Research	3	0	0	0	3	
MKT	226	Retail Applications	3	0	0	0	3	
WBL	111	Work-Based Learning I	0	0	0	10	1	
		Subtotal					(15)	

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BUS	153	Human Resource Management	3	0	0	0	3
BUS	228	Business Statistics	2	2	0	0	3
BUS	270	Professional Development	3	0	0	0	3
DBA	110	Database Concepts	2	3	0	0	3
ECM	210	Introduction to E-Commerce	2	2	0	0	3
WBL	112	Work-Based Learning I	0	0	0	20	2
WBL	113	Work-Based Learning I	0	0	0	30	3
WBL	114	Work-Based Learning I	0	0	0	40	4
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	122	Work-Based Learning II	0	0	0	20	2
WBL	123	Work-Based Learning II	0	0	0	30	3
WBL	124	Work-Based Learning II	0	0	0	40	4
WBL	131	Work-Based Learning III	0	0	0	10	1
WBL	132	Work-Based Learning III	0	0	0	20	2

**Total Semester Credit Hours in Program .....68**

## Business Administration/ Marketing and Retailing (D2512F)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
BUS	115	Business Law I	3	0	0	0	3	
BUS	137	Principles of Management	3	0	0	0	3	
CIS	110	Introduction to Computers	2	2	0	0	3	
MKT	120	Principles of Marketing	3	0	0	0	3	
MKT	220	Advertising and Sales Promotion	3	0	0	0	3	
		Subtotal					(16)	
<b>Spring Semester</b>								
ACC	120	Prin of Financial Accounting	3	2	0	0	4	
ECO	251	Principles of Microeconomics	3	0	0	0	3	
MKT	225	Marketing Research	3	0	0	0	3	
MKT	226	Retail Applications	3	0	0	0	3	
		Subtotal					(13)	
<b>Summer Term</b>								
MKT	122	Visual Merchandising	3	0	0	0	3	
ENG	111	Writing and Inquiry	3	0	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	0	3	
		Subtotal					(9)	

**Total Semester Credit Hours in Program .....38**

## Collision Repair and Refinishing Technology (A60130)

### Associate in Applied Science Degree

Mobile Equipment Maintenance and Repair Pathway  
 Description: Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

Collision Repair and Refinishing program description: The collision repair and refinishing program prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Topics include instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit	Exp.
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
AUB 160	Body Shop Operations	1	0	0	1
TRN 110	Intro to Transport Tech	1	2	0	2
TRN 120	Basic Transport Electricity	4	3	0	5
TRN 170	PC Skills for Transport	1	2	0	2
TRN 180	Basic Welding for Transport	1	4	0	3
TRN 180A	Basic Welding for Trans Lab*	0	3	0	1
	Subtotal				(15)
<b>Spring Semester</b>					
AUB 111	Painting and Refinishing I	2	6	0	4
AUB 121	Non-Structural Damage I	1	4	0	3
ENG 111	Writing and Inquiry	3	0	0	3
TRN 140	Transport Climate Control	1	2	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	2
	Humanities Elective**	3	0	0	3
	Subtotal				(17)

<b>Summer Term</b>					
AUB 131	Structural Damage I	2	4	0	4
AUB 136	Plastics and Adhesives	1	4	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
	Subtotal				(10)

<b>Fall Semester</b>					
AUB 114	Special Finishes	1	2	0	2
AUB 122	Non-Structural Damage II	2	6	0	4
AUB 132	Structural Damage II	2	6	0	4
	Social/Behavioral Science Elective**				3
	Subtotal				(13)

<b>Spring Semester</b>					
AUB 112	Painting and Refinishing II	2	6	0	4
AUB 162	Autobody Estimating	1	2	0	2
AUT 141	Suspension & Steering Sys	2	3	0	3
AUT 141A	Suspension & Steering Sys Lab*	0	3	0	1
	Or				
WBL 111	Work-Based Learning I	0	0	0	10
ENG 114	Prof Research and Reporting	3	0	0	3
	Subtotal				(13)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 68**

## Collision Repair and Refinishing Technology (D60130)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit	Exp.
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
AUB 160	Body Shop Operations	1	0	0	1
TRN 110	Intro to Transport Tech	1	2	0	2
TRN 120	Basic Transport Electricity	4	3	0	5
TRN 170	PC Skills for Transport	1	2	0	2
TRN 180	Basic Welding for Transport	1	4	0	3
TRN 180A	Basic Welding for Trans Lab*	0	3	0	1
	Subtotal				(15)
<b>Spring Semester</b>					
AUB 111	Painting and Refinishing I	2	6	0	4
AUB 121	Non-Structural Damage I	1	4	0	3
AUB 162	Autobody Estimating	1	2	0	2
ENG 111	Writing and Inquiry	3	0	0	3
TRN 140	Transport Climate Control	1	2	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	2
	Subtotal				(16)
<b>Summer Term</b>					
AUB 131	Structural Damage I	2	4	0	4
AUB 136	Plastics and Adhesives	1	4	0	3
MAT 110	Math Measurement & Literacy	2	2	0	3
	Subtotal				(10)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 41**

## Collision Repair and Refinishing – Insurance Estimating (C60130IE) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUB	111	Painting and Refinishing I	2	6	0	0	4
AUB	121	Non-Structural Damage I	1	4	0	0	3
AUB	131	Structural Damage I	2	4	0	0	4
AUB	160	Body Shop Operations	1	0	0	0	1
AUB	162	Autobody Estimating	1	2	0	0	2
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	170	PC Skills for Transport	1	2	0	0	2

**Total Semester Credit Hours in Program ..... 18**

## Collision Repair and Refinishing – Non-Structural (C60130NS) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUB	112	Painting and Refinishing II	2	6	0	0	4
AUB	121	Non-Structural Damage I	1	4	0	0	3
AUB	122	Non-Structural Damage II	2	6	0	0	4
AUB	136	Plastics and Adhesives	1	4	0	0	3
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	170	PC Skills for Transport	1	2	0	0	2

**Total Semester Credit Hours in Program ..... 18**

## Collision Repair and Refinishing – Structural (C60130S) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUB	111	Painting & Refinishing I	2	6	0	0	4
AUB	131	Structural Damage I	2	4	0	0	4
AUB	132	Structural Damage II	2	6	0	0	4
TRN	110	Intro to Transport Tech	1	2	0	0	2
TRN	180	Basic Welding for Transport	1	4	0	0	3
TRN	180A	Basic Welding for Trans Lab*	0	3	0	0	1

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 18**

**Students may earn additional certificates in the Mobile Equipment Maintenance and Repair Pathway programs. Speak to your faculty advisor for more information.**



## Community Spanish Interpreter (A55370) Associate in Applied Science Degree

The Community Spanish Interpreter curriculum prepares individuals to work as entry-level bilingual professionals who will provide communication access in interview and interactive settings. In addition, this curriculum provides educational training for working professionals who want to acquire Spanish language skills.

Course work includes the acquisition of Spanish: grammar, structure, and sociolinguistic properties, cognitive processes associated with interpretation between Spanish and English; the structure and character of the Hispanic community; and acquisition of communication skills.

Graduates should qualify for entry-level jobs as para-professional bilingual employees in educational systems or a variety of community settings. Individuals may choose from part-time, full-time, or self-employment/free-lance positions, or apply language skills to other human service related areas.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
SPA 111	Elementary Spanish I	3	0	0	0	3
SPA 181	Spanish Lab 1*	0	2	0	0	1
SPI 113	Introduction to Spanish Interp.	3	0	0	0	3
	Major Course Elective***					3
	Subtotal					(17)

### Spring Semester

ENG 114	Prof Research and Reporting	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
SPA 112	Elementary Spanish II	3	0	0	0	3
SPA 141	Culture and Civilization	3	0	0	0	3
SPA 182	Spanish Lab 2*	0	2	0	0	1
	Subtotal					(13)

### Summer Term

SPA 211	Intermediate Spanish I	3	0	0	0	3
SPA 281	Spanish Lab 3*	0	2	0	0	1
SPI 213	Review of Grammar	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(10)

### Fall Semester

SPA 120	Spanish for the Workplace	3	0	0	0	3
SPA 161	Cultural Immersion	2	3	0	0	3
SPA 212	Intermediate Spanish II	3	0	0	0	3
SPA 282	Spanish Lab 4*	0	2	0	0	1
SPI 114	Analytical Skills for Spanish Int.	3	0	0	0	3
	Social/Behavioral Science Elective**					3
	Subtotal					(16)

### Spring Semester

SPA 215	Spanish Phonetics/Structure	3	0	0	0	3
SPA 221	Spanish Conversation	3	0	0	0	3
SPA 231	Reading and Composition	3	0	0	0	3
SPI 214	Introduction to Translation	3	0	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 115	Work-Based Learning Seminar I	1	0	0	0	1
	Major Course Elective***					3
	Subtotal					(17)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Elective hours are to be selected from the following:

BUS 110	Introduction to Business	3	0	0	0	3
BUS 115	Business Law I	3	0	0	0	3
BUS 153	Human Resource Management	3	0	0	0	3
EDU 131	Children, Family, and Comm.	3	0	0	0	3
EDU 144	Child Development I	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 132	Work-Based Learning III	0	0	0	20	2

**Total Semester Credit Hours in Program ..... 73**

## Computer Information Technology (A25260)

### Associate in Applied Science Degree

The Computer Information Technology curriculum prepares graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible curriculum that can be customized to meet community information systems needs.

Course work will develop a student's ability to communicate complex technical issues related to computer hardware, software, and networks in a manner that computer users can understand. Classes cover computer operations and terminology, operating systems, database, networking, security, and technical support.

Graduates should qualify for employment in entry-level positions with businesses, educational systems, and governmental agencies which rely on computer systems to manage information. Graduates should be prepared to sit for industry-recognized certification exams.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work	Credit	Exp.
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#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BUS 110	Introduction to Business	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
Subtotal						(16)

#### Spring Semester

CTS 155	Tech Support Functions	2	2	0	0	3
DBA 110	Database Concepts	2	3	0	0	3
ENG 114	Prof Research and Reporting	3	0	0	0	3
NOS 110	Operating Systems Concepts	2	3	0	0	3
Major Course Elective***						3
Subtotal						(15)

#### Summer Term

MAT 143	Quantitative Literacy	2	2	0	0	3
Social/Behavioral Sciences Elective**						3
Subtotal						(6)

#### Fall Semester

CTS 120	Hardware/Software Support	2	3	0	0	3
CTS 285	Systems Analysis and Design	3	0	0	0	3
NET 125	Networking Basics	1	4	0	0	3
NOS 130	Windows Single User	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
Subtotal						(13)

#### Spring Semester

CTS 217	Computer Training Support	2	2	0	0	3
CTS 289	System Support Project	1	4	0	0	3
NOS 230	Windows Administration I	2	2	0	0	3
Humanities Elective**						3
Major Course Elective***						3
Subtotal						(15)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ACC 120	Prin of Financial Accounting	3	2	0	0	4
ACC 121	Prin of Managerial Accounting	3	2	0	0	4
BUS 153	Human Resource Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	JAVA Programming	2	3	0	0	3
CSC 153	C# Programming	2	3	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
NOS 120	Linux/UNIX Single User	2	2	0	0	3
WBL 122	Work-Based Learning II	0	0	0	20	2
WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 250	Database Driven websites	2	2	0	0	3

**Total Semester Credit Hours in Program .....65**

## Computer Information Technology (D25260)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work	Credit	Exp.
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#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
NET 125	Networking Basics	1	4	0	0	3
Subtotal						(16)

#### Spring Semester

CTS 155	Tech Support Functions	2	2	0	0	3
DBA 110	Database Concepts	2	3	0	0	3
NOS 110	Operating Systems Concepts	2	3	0	0	3
Major Course Elective***						3
Subtotal						(12)

#### Fall Semester

CTS 120	Hardware/Software Support	2	3	0	0	3
NOS 130	Windows Single User	2	2	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
Major Course Elective***						3
Subtotal						(13)

\*\*\*Major Course Electives are to be selected from the following:

CSC 134	C++ Programming	2	3	0	0	3
CSC 151	JAVA Programming	2	3	0	0	3
CSC 153	C# Programming	2	3	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
NOS 120	Linux/UNIX Single User	2	2	0	0	3
WBL 122	Work-Based Learning II	0	0	0	20	2
WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 250	Database Driven websites	2	2	0	0	3

**Total Semester Credit Hours in Program .....41**

## Computer Programming (A25130) Associate in Applied Science Degree

The Computer Programming curriculum prepares individuals for employment as computer programmers and related positions through study and applications in computer concepts, logic, programming procedures, languages, generators, operating systems, networking, data management, and business operations.

Students will solve business computer problems through programming techniques and procedures, using appropriate languages and software. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, computer operators, systems technicians, or database specialists.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BUS 110	Introduction to Business	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
	Subtotal					(16)

### Spring Semester

CSC 134	C++ Programming	2	3	0	0	3
DBA 110	Database Concepts	2	3	0	0	3
NOS 110	Operating System Concepts	2	3	0	0	3
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(15)

### Summer Term

ENG 114	Prof. Research and Reporting	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
	Subtotal					(6)

### Fall Semester

CSC 151	JAVA Programming	2	3	0	0	3
CSC 234	Advanced C++ Programming	2	3	0	0	3
CTS 285	Systems Analysis and Design	3	0	0	0	3
NET 125	Networking Basics	1	4	0	0	3
NOS 130	Windows Single User	2	2	0	0	3
	Subtotal					(15)

### Spring Semester

CSC 251	Adv JAVA Programming	2	3	0	0	3
CSC 289	Programming Capstone Project	1	4	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Humanities/Fine Arts Elective**					3
	Major Course Elective***					3
	Subtotal					(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ACC 120	Prin of Financial Accounting	3	2	0	0	4
ACC 121	Prin of Managerial Accounting	3	2	0	0	4
BUS 228	Business Statistics	2	2	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
CSC 153	C# Programming	2	3	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
MAT 171	Pre-calculus Algebra	3	2	0	0	4
NOS 120	Linux/UNIX Single User	2	2	0	0	3
SGD 113	SGD Programming	2	3	0	0	3
WBL 112	Work-Based Learning I	0	0	0	20	2
WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3
WEB 182	PHP Programming	2	2	0	0	3
WEB 250	Database Driven websites	2	2	0	0	3

**Total Semester Credit Hours in Program .....65**

## Computer Programming (D25130) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
CSC 151	Java Programming	2	3	0	0	3
NET 125	Networking Basics	1	4	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
	Subtotal					(16)

### Spring Semester

CSC 134	C++ Programming	2	3	0	0	3
CSC 251	Advanced JAVA Programming	2	3	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
NOS 110	Operating System Concepts	2	3	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
	Subtotal					(15)

### Fall Semester

CSC 234	Advance C++	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program .....37**

## Computer Programming (C25130) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

CIS	110	Introduction to Computers	2	2	0	0	3
CIS	115	Intro to Programming and Logic	2	3	0	0	3
CSC	151	JAVA Programming	2	3	0	0	3
		Subtotal					(9)

### Spring Semester

CSC	134	C++ Programming	2	3	0	0	3
CSC	251	Advanced Java Programming	2	3	0	0	3
		Subtotal					(6)

**Total Semester Credit Hours in Program ..... 15**

## Computer-Integrated Machining (A50210)

### Associate in Applied Science Degree

The Computer-Integrated Machining curriculum prepares students with the analytical, creative and innovative skills necessary to take a production idea from an initial concept through design, development and production, resulting in a finished product.

Coursework may include manual machining, computer applications, engineering design, computer-aided drafting (CAD), computer-aided machining (CAM), blueprint interpretation, advanced computerized numeric control (CNC) equipment, basic and advanced machining operations, precision measurement and high-speed multi-axis machining.

Graduates should qualify for employment as machining technicians in high-tech manufacturing, rapid-prototyping and rapid-manufacturing industries, specialty machine shops, fabrication industries, and high-tech or emerging industries such as aerospace, aviation, medical, and renewable energy, and to sit for machining certification examinations.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
ISC 112	Industrial Safety	2	0	0	0	2
MAC 111	Machining Technology I	2	12	0	0	6
MAC 121	Intro to CNC	2	0	0	0	2
MAC 151	Machining Calculations	1	2	0	0	2
	Subtotal					(13)

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Spring Semester</b>						
BPR 111	Print Reading	1	2	0	0	2
ENG 111	Writing and Inquiry	3	0	0	0	3
MAC 112	Machining Technology II	2	12	0	0	6
MAC 122	CNC Turning	1	3	0	0	2
MAC 124	CNC Milling	1	3	0	0	2
	Subtotal					(15)

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Summer Term</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
DFT 151	CAD I	2	3	0	0	3
	Major Course Elective***					6
	Subtotal					(12)

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
MAC 222	Advanced CNC Turning	1	3	0	0	2
MAT 143	Quantitative Literacy	2	2	0	0	3
MEC 110	Intro to CAD/CAM	1	2	0	0	2
	Social/Behavioral Science Elective**					3
	Major Course Elective***					6
	Subtotal					(16)

### Spring Semester

	Class	Lab	Clinic	Work	Credit	
				Exp.		
ENG 114	Profess Research/Reporting	3	0	0	0	3
ISC 132	Mfg Quality Control	2	3	0	0	3
MAC 224	Advanced CNC Milling	1	3	0	0	2
MAC 248	Production Procedures	1	2	0	0	2
	Humanities Elective**					3
	Subtotal					(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

	Class	Lab	Clinic	Work	Credit	
				Exp.		
ATR 112	Intro to Automation	2	3	0	0	3
ATR 211	Robot Programming	2	3	0	0	3
ATR 219	Automation Troubleshooting	1	3	0	0	2
AUT 116	Engine Repair	2	3	0	0	3
AUT 116A	Engine Repair Lab*	0	3	0	0	1
BUS 110	Introduction to Business	3	0	0	0	3
DFT 154	Intro Solid Modeling	2	3	0	0	3
EGR 125	Appl Software for Tech	1	2	0	0	2
EGR 150	Intro to Engineering	1	2	0	0	2
MEC 145	Mfg Materials I	2	3	0	0	3
MEC 180	Engineering Materials	2	3	0	0	3
PLA 162	Plastics Manufact Processes	2	3	0	0	3
TDP 110	Intro to 3D Printing	2	3	0	0	3
TDP 140	Precision 3D Printing	2	3	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 122	Work-Based Learning III	0	0	0	20	2
WLD 112	Basic Welding Processes	1	3	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....69**

## Computer-Integrated Machining (D50210)

### Diploma

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
MAC 111	Machining Technology I	2	12	0	0	6
MAC 121	Intro to CNC	2	0	0	0	2
MAC 151	Machining Calculations	1	2	0	0	2
MAT 143	Quantitative Literacy	2	2	0	0	3
	Subtotal					(14)

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Spring Semester</b>						
BPR 111	Print Reading	1	2	0	0	2
ENG 111	Writing and Inquiry	3	0	0	0	3
MAC 112	Machining Technology II	2	12	0	0	6
MAC 122	CNC Turning	1	3	0	0	2
MAC 124	CNC Milling	1	3	0	0	2
	Subtotal					(15)



**Summer Term**

CIS	110	Introduction to Computers	2	2	0	0	3
DFT	151	CAD I	2	3	0	0	3
		Major Course Elective***					6
		Subtotal					(12)

\*\*\*Major Course Electives are to be selected from the following:

ATR	112	Intro to Automation	2	3	0	0	3
ATR	211	Robot Programming	2	3	0	0	3
ATR	219	Automation Troubleshooting	1	3	0	0	2
AUT	116	Engine Repair	2	3	0	0	3
AUT	116A	Engine Repair Lab*	0	3	0	0	1
BUS	110	Introduction to Business	3	0	0	0	3
DFT	154	Intro Solid Modeling	2	3	0	0	3
EGR	125	Appl Software for Tech	1	2	0	0	2
EGR	150	Intro to Engineering	1	2	0	0	2
MEC	145	Mfg Materials I	2	3	0	0	3
MEC	180	Engineering Materials	2	3	0	0	3
PLA	162	Plastics Manufact Processes	2	3	0	0	3
TDP	110	Intro to 3D Printing	2	3	0	0	3
TDP	140	Precision 3D Printing	2	3	0	0	3
WBL	111	Work-Based Learning I	0	0	0	10	1
WBL	112	Work-Based Learning I	0	0	0	20	2
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	122	Work-Based Learning III	0	0	0	20	2
WLD	112	Basic Welding Processes	1	3	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 41**

**Computer-Integrated Machining – CNC Turning Operator (C50210CN) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work	Credit
			Exp.	

**Required Courses**

BPR	111	Print Reading	1	2	0	0	2
MAC	111	Machining Technology I	2	12	0	0	6
MAC	112	Machining Technology II	2	12	0	0	6
MAC	121	Intro to CNC	2	0	0	0	2
MAC	122	CNC Turning	1	3	0	0	2

**Total Semester Credit Hours in Program ..... 18**

**Computer-Integrated Machining – CNC Milling Operator (C50210CM) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work	Credit
			Exp.	

**Required Courses**

BPR	111	Print Reading	1	2	0	0	2
MAC	111	Machining Technology I	2	12	0	0	6
MAC	112	Machining Technology II	2	12	0	0	6
MAC	121	Intro to CNC	2	0	0	0	2
MAC	124	CNC Milling	1	3	0	0	2

**Total Semester Credit Hours in Program ..... 18**

**Computer-Integrated Machining – Machinist – Entry (C50210ME) Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work	Credit
			Exp.	

**Required Courses**

BPR	111	Print Reading	1	2	0	0	2
ISC	112	Industrial Safety	2	0	0	0	2
MAC	111	Machining Technology I	2	12	0	0	6
MAC	112	Machining Technology II	2	12	0	0	6
MAC	151	Machining Calculations	1	2	0	0	2

**Total Semester Credit Hours in Program ..... 18**

## Computer-Integrated Machining – Engine Machine Shop (C50210MS) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AUT 116	Engine Repair	2	3	0	0	3
AUT 116A	Engine Repair Lab*	0	3	0	0	1
MAC 111	Machining Technology I	2	12	0	0	6
MAC 112	Machining Technology II	2	12	0	0	6
MAC 151	Machining Calculations	1	2	0	0	2

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 18**

## Computer-Integrated Machining – Manufacturing Technician (C50210MT) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

ATR 112	Intro to Automation	2	3	0	0	3
ATR 211	Robot Programming	2	3	0	0	3
BPR 111	Print Reading	1	2	0	0	2
EGR 125	Appl Software for Tech	1	2	0	0	2
ISC 112	Industrial Safety	2	0	0	0	2
MAC 124	CNC Milling	1	3	0	0	2

**Total Semester Credit Hours in Program ..... 14**

**Cosmetology (A55140)****Associate in Applied Science Degree**

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment that enables students to develop manipulative skills. Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and as skin/nail specialists, platform artists, and related businesses.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. The following course sequences are for day students. Night students should work closely with their advisor for adjusted sequence.

**Day students that begin in Fall will follow this course sequence:**

	Class	Lab	Clinic	Work	Credit	
				Exp.		

**Fall Semester**

COS 111	Cosmetology Concepts I	4	0	0	0	4
COS 112	Salon I	0	24	0	0	8
	Subtotal					(12)

**Spring Semester**

ACA 115	Success and Study Skills	0	2	0	0	1
COM 113	Cosmetology Concepts II	4	0	0	0	4
COS 114	Salon II	0	24	0	0	8
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(16)

**Summer Term**

COS 115	Cosmetology Concepts III	4	0	0	0	4
COS 116	Salon III	0	12	0	0	4
ENG 114	Prof Research and Reporting	3	0	0	0	3
	Subtotal					(11)

**Fall Semester**

COS 117	Cosmetology Concepts IV	2	0	0	0	2
COS 118	Salon IV	0	21	0	0	7
COS 240	Contemporary Design	1	3	0	0	2
COS 250	Computerized Salon Operations	1	0	0	0	1
MAT 143	Quantitative Literacy	2	2	0	0	3
	Subtotal					(15)

**Spring Semester**

BUS 280	REAL Small Business	4	0	0	0	4
CIS 110	Introduction to Computers	2	2	0	0	3
	Humanities Elective**					3
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(16)

**Day students that begin in Spring will follow this course sequence:**

	Class	Lab	Clinic	Work	Credit	
				Exp.		

**Spring Semester**

COS 111	Cosmetology Concepts I	4	0	0	0	4
COS 112	Salon I	0	24	0	0	8
ACA 115	Success and Study Skills	0	2	0	0	1
	Subtotal					(13)

**Summer Term**

COS 113	Cosmetology Concepts II	4	0	0	0	4
COS 114A	Salon IIA	0	12	0	0	4
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(11)

**Fall Semester**

COS 114B	Salon IIA	0	12	0	0	4
COS 115	Cosmetology Concepts II	4	0	0	0	4
ENG 114	Prof Research and Reporting	3	0	0	0	3
COS 250	Computerized Salon Operations	1	0	0	0	1
	Subtotal					(12)

**Spring Semester**

COS 116	Salon III	0	12	0	0	4
COS 117	Cosmetology Concepts IV	2	0	0	0	2
COS 240	Contemporary Design	1	3	0	0	2
BUS 280	REAL Small Business	4	0	0	0	4
	Major Course Elective***					3
	Subtotal					(15)

**Summer Term**

COS 118A	Salon IVA	0	12	0	0	4
MAT 143	Quantitative Literacy	2	2	0	0	3
	Subtotal					(7)

**Fall Semester**

COS 118B	Salon IVB	0	9	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
	Social/Behavioral Science Elective**					3
	Humanities Elective**					3
	Subtotal					(12)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BUS 137	Principles of Management	3	0	0	0	3
BUS 270	Professional Development	3	0	0	0	3

**Total Semester Credit Hours in Program ..... 70**

**Cosmetology (D55140)**  
**Diploma**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. The following course sequences are for day students. Night students should work closely with their advisor for adjusted sequence.

**Day students that begin in Fall will follow this course sequence:**

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
COS	111	Cosmetology Concepts I	4	0	0	4
COS	112	Salon I	0	24	0	8
		Subtotal				(12)

<b>Spring Semester</b>						
ACA	115	Success and Study Skills	0	2	0	1
COM	113	Cosmetology Concepts II	4	0	0	4
COS	114	Salon II	0	24	0	8
ENG	111	Writing and Inquiry	3	0	0	3
		Subtotal				(16)

<b>Summer Term</b>						
COS	115	Cosmetology Concepts III	4	0	0	4
COS	116	Salon III	0	12	0	4
ENG	114	Prof Research and Reporting	3	0	0	3
		Subtotal				(11)

<b>Fall Semester</b>						
COS	118	Salon IV	0	21	0	7
COS	240	Contemporary Design	1	3	0	2
ENG	114	Prof Research and Reporting	3	0	0	3
		Subtotal				(12)

**Day students that begin in Spring will follow this course sequence:**

			Class	Lab	Clinic	Work	Credit
						Exp.	
<b>Spring Semester</b>							
COS	111	Cosmetology Concepts I	4	0	0	0	4
COS	112	Salon I	0	24	0	0	8
ACA	115	Success and Study Skills	0	2	0	0	1
		Subtotal					(13)

<b>Summer Term</b>							
COS	113	Cosmetology Concepts II	4	0	0	0	4
COS	114A	Salon IIA	0	12	0	0	4
ENG	111	Writing and Inquiry	3	0	0	0	3
		Subtotal					(11)

<b>Fall Semester</b>							
COS	114B	Salon IIA	0	12	0	0	4
COS	115	Cosmetology Concepts II	4	0	0	0	4
		Subtotal					(11)

<b>Spring Semester</b>							
COS	240	Contemporary Design	1	3	0	0	2
		Subtotal					(6)

<b>Summer Term</b>							
COS	118A	Salon IVA	0	12	0	0	4
		Subtotal					(4)

<b>Fall Semester</b>							
COS	118B	Salon IVB	0	9	0	0	3
		Subtotal					(3)

**Total Semester Credit Hours in Program .....48**

## Cosmetology (C55140) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. The following course sequences are for day students. Night students should work closely with their advisor for adjusted sequence.

### Day students that begin in Fall will follow this course sequence:

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
COS 111	Cosmetology Concepts I	4	0	0	4
COS 112	Salon I	0	24	0	8
	Subtotal				(12)
<b>Spring Semester</b>					
COM 113	Cosmetology Concepts II	4	0	0	4
COS 114	Salon II	0	24	0	8
COS 240	Contemporary Design	1	3	0	2
	Subtotal				(16)
<b>Summer Term</b>					
COS 115	Cosmetology Concepts III	4	0	0	4
COS 116	Salon III	0	12	0	4
	Subtotal				(8)

### Day students that begin in Spring will follow this course sequence:

	Class	Lab	Clinic	Work Exp.	Credit
<b>Spring Semester</b>					
COS 111	Cosmetology Concepts I	4	0	0	4
COS 112	Salon I	0	24	0	8
	Subtotal				(12)
<b>Summer Term</b>					
COM 113	Cosmetology Concepts II	4	0	0	4
COS 114	Salon IIA	0	12	0	4
	Subtotal				(8)
<b>Fall Semester</b>					
COS 114B	Salon IIB	0	12	0	4
COS 115	Cosmetology Concepts III	4	0	0	4
	Subtotal				(8)
<b>Spring Semester</b>					
COS 116	Salon III	0	12	0	4
COS 240	Contemporary Design	1	3	0	2
	Subtotal				(6)
<b>Total Semester Credit Hours in Program .....</b>					<b>34</b>

## Cosmetology Instructor (C55160) Certificate

The Cosmetology Instructor curriculum provides a course of study for learning the skills needed to teach the theory and practice of cosmetology as required by the North Carolina Board of Cosmetic Arts.

Course work includes requirements for becoming an instructor, introduction to teaching theory, methods and aids, practice teaching, and development of evaluation instruments.

Graduates of the program may be employed as cosmetology instructors in public or private education and business.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
COS 271	Instructor Concepts I	5	0	0	5
COS 272	Instructor Practicum I	0	21	0	7
	Subtotal				(12)
<b>Spring Semester</b>					
COS 273	Instructor Concepts II	5	0	0	5
COS 274	Instructor Practicum II	0	21	0	7
	Subtotal				(12)

**Total Semester Credit Hours in Program ..... 24**



## Criminal Justice Technology (A55180) Associate in Applied Science Degree

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

Students who have successfully completed a Basic Law Enforcement Training course accredited by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriff's Education and Training Standards Commission and passed the Commission's comprehensive certificate examination will receive credit towards the Associate in Applied Science degree in Criminal Justice Technology.

This curriculum complies with the standard approved by the State Board of Community Colleges.

The Criminal Justice program articulates with the following four year universities:  
Norwich University (follow standard program of study below)  
Mars Hill University (see page 132)

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
ACA 122	College Transfer Success	0	2	0	0 1
Or					
ACA 115	Success and Study Skills	0	2	0	0 1
CIS 110	Introduction to Computers	2	2	0	0 3
CJC 111	Intro to Criminal Justice	3	0	0	0 3
CJC 231	Constitutional Law	3	0	0	0 3
ENG 111	Writing and Inquiry	3	0	0	0 3
	<b>Subtotal</b>				<b>(13)</b>

	Class	Lab	Clinic	Work Exp.	Credit
<b>Spring Semester</b>					
CJC 112	Criminology	3	0	0	0 3
CJC 131	Criminal Law	3	0	0	0 3
Either					
MAT 110	Math Measurement & Literacy	2	2	0	0 3
Or					
MAT 143	Quantitative Literacy	2	2	0	0 3
Or					
MAT 152	Statistical Methods I	3	2	0	0 4
POL 130	State and Local Government	3	0	0	0 3
	Communications/Foreign Lang Elective**				3
	<b>Subtotal</b>				<b>(15-16)</b>

### Summer Term

	Class	Lab	Clinic	Work Exp.	Credit
Either					
ENG 112	Writing/Research in the Disc	3	0	0	0 3
Or					
ENG 114	Prof. Research and Reporting	3	0	0	0 3
	Humanities Elective**				3
	Social/Behavioral Science Elective**				3
	<b>Subtotal</b>				<b>(9)</b>

### Fall Semester

CJC 113	Juvenile Justice	3	0	0	0 3
CJC 121	Law Enforcement Operations	3	0	0	0 3
CJC 132	Court Procedure & Evidence	3	0	0	0 3
CJC 221	Investigative Principles	3	2	0	0 4
	Major Course Elective***				3
	<b>Subtotal</b>				<b>(16)</b>

### Spring Semester

CJC 141	Corrections	3	0	0	0 3
CJC 170	Critical Incident Mgmt Pub Saf	3	0	0	0 3
CJC 212	Ethics & Community Relations	3	0	0	0 3
CJC 255	Issues in Crim Justice App	3	0	0	0 3
	<b>Subtotal</b>				<b>(12)</b>

Students planning to transfer to a 4 year institution should take ACA 122 and either MAT 143 or MAT 152

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*Communications/Foreign Language Elective is to be selected from the following courses: ASL 111, COM 120, COM 140, COM 160, COM 231, SPA 120.

\*\*\*Major Course Electives are to be selected from the following:

CJC 120	Interviews/Interrogations	1	2	0	0 2
CJC 122	Community Policing	3	0	0	0 3
CJC 151	Intro to Loss Prevention	3	0	0	0 3
CJC 213	Substance Abuse	3	0	0	0 3
CJC 215	Organization & Administration	3	0	0	0 3
CJC 222	Criminalistics	3	0	0	0 3
CJC 223	Organized Crime	3	0	0	0 3
CJC 241	Community-Based Corrections	3	0	0	0 3
PED 110	Fit and Well for Life	1	2	0	0 2
PED 111	Physical Fitness I	0	3	0	0 1
PED 117	Weight Training I	0	3	0	0 1
PED 118	Weight Training II	0	3	0	0 1
PED 119	Circuit Training	0	3	0	0 1
PED 120	Walking for Fitness	0	3	0	0 1
PED 121	Walk, Jog, Run	0	3	0	0 1
PSY 150	General Psychology	3	0	0	0 3
PSY 231	Forensic Psychology	3	0	0	0 3
PSY 237	Social Psychology	3	0	0	0 3
SOC 220	Social Problems	3	0	0	0 3
WBL 111	Work-Based Learning I	0	0	0	10 1
WBL 112	Work-Based Learning I	0	0	0	20 2
WBL 113	Work-Based Learning I	0	0	0	30 3
WBL 114	Work-Based Learning I	0	0	0	40 4
WBL 121	Work-Based Learning II	0	0	0	10 1
WBL 122	Work-Based Learning II	0	0	0	20 2
WBL 123	Work-Based Learning II	0	0	0	30 3
WBL 124	Work-Based Learning II	0	0	0	40 4

**Total Semester Credit Hours in Program .....65-66**

## Criminal Justice Technology (D55180)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CJC 111	Intro to Criminal Justice	3	0	0	0	3
CJC 113	Juvenile Justice	3	0	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	0	3
CJC 221	Investigative Principles	3	2	0	0	4
CJC 231	Constitutional Law	3	0	0	0	3
Subtotal						(17)

#### Spring Semester

CJC 112	Criminology	3	0	0	0	3
CJC 131	Criminal Law	3	0	0	0	3
CJC 141	Corrections	3	0	0	0	3
CJC 212	Ethics & Community Relations	3	0	0	0	3
CJC 222	Criminalistics	3	0	0	0	3
Subtotal						(15)

#### Summer Term

ENG 111	Writing and Inquiry	3	0	0	0	3
Either						
MAT 110	Math Measurement & Literacy	2	2	0	0	3
Or						
MAT 143	Quantitative Literacy	2	2	0	0	3
Or						
MAT 152	Statistical Methods I	3	2	0	0	4
Subtotal						(6-7)

**Total Semester Credit Hours in Program .....38-39**

## Criminal Justice Technology (C55180)

### Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

CJC 111	Intro to Criminal Justice	3	0	0	0	3
CJC 221	Investigative Principles	3	2	0	0	4
Subtotal						(7)

#### Spring Semester

CJC 131	Criminal Law	3	0	0	0	3
CJC 212	Ethics & Community Relations	3	0	0	0	3
Subtotal						(6)

**Total Semester Credit Hours in Program .....13**

### Criminal Justice Technology/Latent Evidence (A5518A) – Online Program Associate in Applied Science Degree

Latent Evidence is a concentration under the curriculum of Criminal Justice Technology. This curriculum is designed to provide knowledge of latent evidence systems and operations. Study will focus on local, state, and federal law enforcement, evidence processing and procedures.

Students will learn both theory and hands-on analysis of latent evidence. They will learn fingerprint classification, identification, and chemical development. Students will record, cast, and recognize footwear and tire-tracks; and process crime scenes. Issues and concepts of communications and the use of computers and computer assisted design programs in crime scene technology will be discussed.

Graduates should qualify for employment in a variety of criminal justice organizations especially in local, state, and federal law enforcement, and correctional agencies.

Students who have successfully completed a Basic Law Enforcement Training course accredited by the North Carolina Criminal Justice Education and Training Standards Commission and the North Carolina Sheriff's Education and Training Standards Commission and passed the Commission's comprehensive certificate examination will receive credit towards the Associate in Applied Science degree in Criminal Justice Technology.

This curriculum complies with the standard approved by the State Board of Community Colleges.

The Criminal Justice-Latent Evidence program articulates with the following four year universities:  
Norwich University (follow standard program of study below)  
Mars Hill University (see page 132)

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

ACA 122	College Transfer Success	0	2	0	0	1
	Or					
ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CJC 111	Intro to Criminal Justice	3	0	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	0	3
CJC 231	Constitutional Law	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(16)

**Spring Semester**

CJC 112	Criminology	3	0	0	0	3
CJC 131	Criminal Law	3	0	0	0	3
	Either					
POL 120	American Government	3	0	0	0	3
	Or					
POL 130	State and Local Government	3	0	0	0	3
	Communications/ Foreign Lang Elective*					3
	Subtotal					(12)

**Summer Term**

ENG 112	Writing/Research in the Disc	3	0	0	0	3
	Or					
ENG 114	Prof. Research and Reporting	3	0	0	0	3
	Either					
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Or					
MAT 143	Quantitative Literacy	2	2	0	0	3
	Or					
MAT 152	Statistical Methods I	3	2	0	0	4
	Humanities Elective**					3
	Subtotal					(9-10)

**Fall Semester**

CJC 113	Juvenile Justice	3	0	0	0	3
CJC 132	Court Procedure & Evidence	3	0	0	0	3
CJC 144	Crime Scene Processing	2	3	0	0	3
CJC 146	Trace Evidence	2	3	0	0	3
CJC 221	Investigative Principles	3	2	0	0	4
	Subtotal					(16)

**Spring Semester**

CJC 170	Critical Incident Mgmt Pub Saf	3	0	0	0	3
CJC 212	Ethics and Community Relations	3	0	0	0	3
CJC 245	Friction Ridge Analysis	2	3	0	0	3
CJC 246	Adv Friction Ridge Analysis	2	3	0	0	3
CJC 255	Issues in Crim Justice App	3	0	0	0	3
	Subtotal					(15)

Students planning to transfer to a 4 year institution should take ACA-122 and either MAT-143 or MAT-152

\*Communications/Foreign Language Elective is to be selected from the following courses: ASL 111, COM 120, COM 140, COM 160, COM 231, and SPA 120.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program .....67-68**

## Early Childhood Education (A55220)

### Associate in Applied Science Degree

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development, physical/nutritional needs of children, care and guidance of children, and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and childcare programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Task Stream: Students who graduate from the program must complete an electronic portfolio in Task Stream

[www.taskstream.com](http://www.taskstream.com) to show competence in the National Association for the Education of Young Children (NAEYC) Standards. Student will receive additional information about Task Stream when they enroll in the degree program.

This curriculum complies with the standard approved by the State Board of Community Colleges. Please see the list of practicum requirements for the Early Childhood and School-Age programs on page 11.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation.

If a student plans to transfer to a four-year institution, students must earn acceptable scores on PRAXIS I before enrolling in a bachelor's degree program. Students should work closely with their advisor to make appropriate course choices.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
EDU 119	Intro Early Childhood Education	4	0	0	0	4
EDU 144	Child Development I	3	0	0	0	3
EDU 173	Becoming a Prof'l in ECE	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(14)

#### Spring Semester

EDU 145	Child Development II	3	0	0	0	3
EDU 151	Creative Activities	3	0	0	0	3
	Either					
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Or					
ENG 114	Prof. Research and Reporting	3	0	0	0	3
	Major Course Elective***					3
	Major Course Elective***					3
	Subtotal					(15)

#### Summer Term

	Either					
	Math Requirement**					3-4
	Or					
	Natural Science Requirement**					4
	Social/Behavioral Science Elective**					3
	Humanities Elective**					3
	Subtotal					(9-10)

#### Fall Semester

EDU 131	Child, Family, & Community	3	0	0	0	3
EDU 146	Child Guidance	3	0	0	0	3
EDU 153	Health, Safety & Nutrition	3	0	0	0	3
EDU 221	Children with Exceptionalities	3	0	0	0	3
EDU 251	Exploration Activities	3	0	0	0	3
	Subtotal					(15)

#### Spring Semester

EDU 234	Infants, Toddlers & Twos	3	0	0	0	3
EDU 271	Educational Technology	2	2	0	0	3
EDU 280	Language & Literacy Exp	3	0	0	0	3
EDU 284	Early Child Capstone Practicum	1	9	0	0	4
	Subtotal					(13)

\*\*Natural Science or Math requirement is to be selected from the courses listed below (3-4 credit hours required):

AST 111	Descriptive Astronomy	3	0	0	0	3
AST 111A	Descriptive Astronomy Lab*	0	2	0	0	1
BIO 111	General Biology I	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
PHY 151	College Physics I	3	2	0	0	4

\*\*Humanities Electives to be selected from the courses listed below (3 credit hours required):

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
ENG 231	America Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3

Social/Behavioral Science Electives to be selected from the courses listed below (3 credit hours required):

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3
HIS 111	World Civilization I	3	0	0	0	3
HIS 112	World Civilization II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3

Several articulation agreements are in place with four-year universities. Students who wish to transfer should work closely with their advisor to choose the appropriate major course, humanities, social/behavior science and math/natural science electives.

\*\*\*Major Course Electives are to be selected from the courses listed below (6 credit hours required):

ASL 111	Elementary ASL I	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
COM 231	Public Speaking	3	0	0	0	3
EDU 157	Active Play	2	2	0	0	3
EDU 163	Classroom Mgt and Instruct	3	0	0	0	3
EDU 184	Early Child Intro Practicum	1	3	0	0	2
EDU 216	Foundations of Education	4	0	0	0	4
EDU 235	School-Age Dev & Program	3	0	0	0	3
EDU 259	Curriculum Planning	3	0	0	0	3
EDU 261	Early Childhood Admin I	3	0	0	0	3
EDU 262	Early Childhood Admin II	3	0	0	0	3
EDU 275	Effective Teacher Training	2	0	0	0	2
EDU 289	Advanced Issues/ School Age	2	0	0	0	2
PED 110	Fit and Well for Life	1	2	0	0	2
SPA 111	Elementary Spanish I	3	0	0	0	3
SPA 181	Spanish Lab 1*	0	2	0	0	1

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....66-68**

### Early Childhood Education – Preschool (C55220P) Certificate

The Early Childhood Certificate is a concentration under the Early Childhood Associate. The certificate prepares individuals to work with children birth through middle childhood (age eight) in diverse learning environments. Course work includes child growth and development, physical/nutritional needs of young children, physical/motor skills, social/emotional, and creative development.

Certificate graduates are prepared to plan and implement developmentally appropriate programs for infants and children through age eight. Employment opportunities include childcare programs, preschools, public and private schools, Head Start programs, developmental day programs, and school-age programs. Students who complete this certificate may apply for the National Preschool Child Development Associate (CDA Credential: NC Community College Track).

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

EDU 119	Intro Early Childhood Education	4	0	0	0	4
EDU 146	Child Guidance	3	0	0	0	3
EDU 153	Health, Safety & Nutrition	3	0	0	0	3
	Subtotal					(10)

**Spring Semester**

EDU 145	Child Development II	3	0	0	0	3
EDU 131	Child, Family and Community	3	0	0	0	3
EDU 184	Early Child Intro Practicum	1	3	0	0	2
	Subtotal					(8)

**Total Semester Credit Hours in Program ..... 18**

### Early Childhood Education – Infant and Toddler (C55290) Certificate

The curriculum prepares individuals to work with children from infancy to three years of age in diverse learning environments. Students will combine learned theories, competency-based knowledge, and practice in actual settings with infants and toddlers.

Course work includes infant/toddler growth and development; physical/nutritional needs of infants and toddlers; safety issues in the care of infants and toddlers; care and guidance; communication skills with families and children; design and implementation of appropriate curriculum; and other related topics.

Graduates should be prepared to plan and implement developmentally appropriate infant/toddler programs in early childhood settings. Employment opportunities include positions in child development and child care programs, early intervention programs, preschools, public and private schools, recreational centers, Early Head Start programs, Nannies, and other infant/toddler programs, including home-childcare.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Students who complete this certificate may apply for the National Infant-Toddler Child Development Associate (CDA Credential: NC Community College Track).

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

EDU 119	Intro Early Childhood Education	4	0	0	0	4
EDU 144	Child Development I	3	0	0	0	3
EDU 153	Health, Safety & Nutrition	3	0	0	0	3
	Subtotal					(10)

**Spring Semester**

EDU 131	Child, Family and Community	3	0	0	0	3
EDU 234	Infants, Toddlers, & Twos	3	0	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program ..... 16**



### Early Childhood Education – School-Age (C55220S) Certificate

This curriculum prepares individuals to work with school-age children in diverse learning environments. The curriculum is specifically designed for students planning to work in public or private school-age care environments.

Course work includes child growth/development; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate activities in school-age environments. Employment opportunities include school-age teaching or school-age administration positions in child care/development programs, group leaders, before and after school programs, recreational centers and other programs that work with school-age populations.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

EDU 157	Active Play	2	2	0	0	3
EDU 163	Classroom Mgt. and Instruction	3	0	0	0	3
EDU 275	Effective Teacher Training	2	0	0	0	2
	Subtotal					(8)

**Spring Semester**

EDU 131	Child, Family and Community	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
EDU 235	School-Age Dev and Programs	3	0	0	0	3
	Subtotal					(9)

**Total Semester Credit Hours in Program .....(17)**

### Early Childhood Education – Administration (C55220A) Certificate

The Early Childhood Administration Certificate program prepares graduates for positions in child care settings. All courses taken for the certificate can be transferred into the Associate of Applied Science degree.

Individuals completing this certificate with a C average or better will be eligible to apply for the North Carolina Division of Child Development Early Childhood Administration Credential.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Summer Term**

EDU 119	Intro Early Childhood Education	4	0	0	0	4
	Subtotal					(4)

**Fall Semester**

EDU 153	Health, Safety & Nutrition	3	0	0	0	3
EDU 261	Early Childhood Admin I	3	0	0	0	3
	Subtotal					(6)

**Spring Semester**

EDU 131	Child, Family & Community	3	0	0	0	3
EDU 262	Early Childhood Admin II	3	0	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program ..... 16**

## Education–School-Age Education (Arts Track)

### Associate in Applied Science

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers.

Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after-school programs, paraprofessional positions in public/private schools, recreational centers, and other programs that work with school-age populations.

This curriculum complies with the standard approved by the State Board of Community Colleges. Please see the list of practicum requirements for the Early Childhood and School-Age programs on page 11.

**Task Stream:** Students who graduate from the program must complete an electronic portfolio in Task Stream [www.taskstream.com](http://www.taskstream.com) to show competence in the National Association for the Education of Young Children (NAEYC) standards. Students will receive additional information about Task Stream when they enroll in the degree program.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

To transfer to a four-year institution, students must earn acceptable scores on PRAXIS I before enrolling in a bachelor's degree in Education. Students should work closely with their advisor to make appropriate course choices.

#### Fall Semester

		Class	Lab	Clinic	Work	Credit
					Exp.	
ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
EDU 144	Child Development I	3	0	0	0	3
EDU 163	Classroom Mgt and Instruct	3	0	0	0	3
EDU 173	Becoming a Prof'l in ECE	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(16)

#### Spring Semester

ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Or					
ENG 114	Prof. Research and Reporting	3	0	0	0	3
EDU 131	Child, Family and Community	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
	Humanities Elective**					3
	Social/Behavioral Science Elective**					3
	Subtotal					(15)

#### Summer Term

	Math Elective**					3-4
	Humanities Elective**					3
	Subtotal					(6-7)

#### Fall Semester

EDU 216	Foundations of Education	4	0	0	0	4
EDU 221	Children with Exceptionalities	3	0	0	0	3
	Science Elective**					4
	Social/Behavioral Science Elective**					3
	Subtotal					(14)

#### Spring Semester

EDU 271	Educational Technology	2	2	0	0	3
EDU 285	Internship Exp-School-Age	1	9	0	0	4
EDU 289	Adv Issues/School Age	2	0	0	0	2
	Social/Behavioral Science Elective**					3
	Humanities Elective**					3
	Subtotal					(15)

\*\*This program works in conjunction with the general education core. Electives listed in the above program of study must be selected from below. Several articulation agreements are in place with four-year universities. Students who wish to transfer should work closely with their advisor to choose the appropriate courses.

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(6)

#### Humanities/Fine Arts (12 semester hours required)

(Four courses from at least three different discipline areas must be selected. One literature course and one foreign language course are required).

#### Art

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3

#### Literature

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3

#### Music

MUS 110	Music Appreciation	3	0	0	0	3
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#### Philosophy

PHI 240	Introduction to Ethics	3	0	0	0	3
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#### International Languages

ASL 111	Elementary ASL I	3	0	0	0	3
ASL 112	Elementary ASL II	3	0	0	0	3
ASL 211	Intermediate ASL I	3	0	0	0	3
FRE 111	Elementary French I	3	0	0	0	3
FRE 112	Elementary French II	3	0	0	0	3
FRE 181	French Lab 1*	0	2	0	0	1
FRE 182	French Lab 2*	0	2	0	0	1
SPA 111	Elementary Spanish I	3	0	0	0	3
SPA 112	Elementary Spanish II	3	0	0	0	3
SPA 181	Spanish Lab 1*	0	2	0	0	1
SPA 182	Spanish Lab 2*	0	2	0	0	1
	Subtotal					(12)

**Social/Behavioral Science**

(9 semester hours required. Three courses from three different discipline areas must be selected. Note: History 111 or 112 is required.)

**Economics**

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3

**History**

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3

**Political Science**

POL 120	American Government	3	0	0	0	3
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**Psychology**

PSY 150	General Psychology	3	0	0	0	3
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**Sociology**

SOC 210	Introduction to Sociology	3	0	0	0	3
	Subtotal					(9)

**Science (4 semester credit hours required from the following)**

BIO 111	General Biology I	3	3	0	0	4
BIO 112	General Biology II	3	3	0	0	4
BIO 140	Environmental Biology	3	0	0	0	3
BIO 140A	Environmental Biology Lab*	0	3	0	0	1
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab*	0	3	0	0	1
CHM 151	General Chemistry I	3	3	0	0	4
CHM 152	General Chemistry II	3	3	0	0	4
PHY 110	Conceptual Physics	3	0	0	0	3
PHY 110A	Conceptual Physics Lab*	0	2	0	0	1
PHY 151	College Physics I	3	2	0	0	4
PHY 152	College Physics II	3	2	0	0	4
	Subtotal					(4)

**Mathematics (3-4 semester hours required from the following.)**

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-calculus Algebra	3	2	0	0	4
	Subtotal					(3-4)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....67- 68**

## Education–School-Age Education (Science Track) Associate in Applied Science Degree

This curriculum prepares individuals to work with children in elementary through middle grades in diverse learning environments. Students will combine learned theories with practice in actual settings with school-age children under the supervision of qualified teachers.

Course work includes child growth/development; computer technology in education; physical/nutritional needs of school-age children; care and guidance of school-age children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of school-age populations.

Graduates are prepared to plan and implement developmentally appropriate programs in school-aged environments. Employment opportunities include school-age teachers in child care programs, before/after-school programs, paraprofessional positions in public/private schools, recreational centers, and other programs that work with school-age populations.

This curriculum complies with the standard approved by the State Board of Community Colleges. Please see the list of practicum requirements for the Early Childhood and School-Age programs on page 11.

**Task Stream:** Students who graduate from the program must complete an electronic portfolio in Task Stream [www.taskstream.com](http://www.taskstream.com) to show competence in the National Association for the Education of Young Children (NAEYC) standards. Students will receive additional information about Task Stream when they enroll in the degree program.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

To transfer to a four-year institution, students must earn acceptable scores on PRAXIS I before enrolling in a bachelor's degree in Education. Students should work closely with their advisor to make appropriate course choices.

			Class	Lab	Clinic	Work	Credit
						Exp.	
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
		Or					
ACA	122	College Transfer Success	0	2	0	0	1
EDU	144	Child Development I	3	0	0	0	3
EDU	163	Classroom Mgt and Instruct	3	0	0	0	3
EDU	173	Becoming a Prof'l in ECE	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
		Math Elective**					3-4
		Subtotal					(16-17)

<b>Spring Semester</b>							
ENG	112	Writing/Research in the Discipl	3	0	0	0	3
EDU	131	Child, Family and Community	3	0	0	0	3
EDU	145	Child Development II	3	0	0	0	3
EDU	271	Educational Technology	2	2	0	0	3
		Humanities Elective**					3
		Subtotal					(15)

<b>Summer Term</b>					
		Math Elective**			3-4
		Humanities Elective**			3
		Social/Behavioral Science Elective**			3
		Subtotal			(9-10)

<b>Fall Semester</b>							
EDU	216	Foundations of Education	4	0	0	0	4
EDU	221	Child with Exceptionalities	3	0	0	0	3
		Humanities Elective**					3
		Natural/Physical Science Elective**					4
		Subtotal					(14)

<b>Spring Semester</b>							
EDU	285	Internship Exp-School-Age	1	9	0	0	4
EDU	289	Adv Issues/School Age	2	0	0	0	2
		Social/Behavioral Science Elective**					3
		Science Elective**					4
		Subtotal					(13)

\*\*This program works in conjunction with the general education core. Electives listed in the above program of study must be selected from below. Several articulation agreements are in place with four-year universities.

Students who wish to transfer should work closely with their advisor to choose the appropriate courses.

<b>English Composition (6 semester hours required)</b>							
ENG	111	Writing and Inquiry	3	0	0	0	3
ENG	112	Writing/Research in the Discipl	3	0	0	0	3
		Subtotal					(6)

**Humanities/Fine Arts**  
(9 semester hours required. Three courses from three different discipline areas are required. One course must be literature.)

<b>Art</b>							
ART	111	Art Appreciation	3	0	0	0	3
ART	114	Art History Survey I	3	0	0	0	3
ART	115	Art History Survey II	3	0	0	0	3

<b>Literature</b>							
ENG	231	American Literature I	3	0	0	0	3
ENG	232	American Literature II	3	0	0	0	3

<b>Music</b>							
MUS	110	Music Appreciation	3	0	0	0	3

<b>Philosophy</b>							
PHI	240	Introduction to Ethics	3	0	0	0	3

<b>International Languages</b>							
ASL	111	Elementary ASL I	3	0	0	0	3
ASL	112	Elementary ASL II	3	0	0	0	3
ASL	211	Intermediate ASL I	3	0	0	0	3
FRE	111	Elementary French I	3	0	0	0	3
FRE	112	Elementary French II	3	0	0	0	3
FRE	181	French Lab 1*	0	2	0	0	1
FRE	182	French Lab 2*	0	2	0	0	1
SPA	111	Elementary Spanish I	3	0	0	0	3
SPA	112	Elementary Spanish II	3	0	0	0	3
SPA	181	Spanish Lab 1*	0	2	0	0	1
SPA	182	Spanish Lab 2*	0	2	0	0	1
		Subtotal					(9)

**Social/Behavioral Sciences**  
(6 semester hours required.) Two courses must be selected from different discipline areas. Note: HIS 111 or HIS 112 is required.

**Economics**

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3

**History**

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3

**Political Science**

POL 120	American Government	3	0	0	0	3
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**Psychology**

PSY 150	General Psychology	3	0	0	0	3
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**Sociology**

SOC 210	Introduction to Sociology	3	0	0	0	3
	Subtotal					(6)

**Natural /Physical Sciences**

(8 semester credit hours required from the following) Select a two-course sequence, including accompanying Laboratory work, from the biological or physical science disciplines.

BIO 111	General Biology I	3	3	0	0	4
BIO 112	General Biology II	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
CHM 152	General Chemistry II	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
PHY 152	College Physics II	3	2	0	0	4
	Subtotal					(8)

**Mathematics (6 semester hours required from the following)**

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-calculus Algebra	3	2	0	0	4
MAT 172	Pre-calculus Trigonometry	3	2	0	0	4
MAT 271	Calculus I	3	2	0	0	4
	Subtotal					(6)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....68-69**



# Electronics Engineering Technology (A40200)

## Associate in Applied Science Degree

Engineering and Technology Pathway Description: These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, construction technicians and managers, industrial and technology managers, or research technicians.

Electronics Engineering Technology program description: A course of study that prepares students to apply basic engineering principles and technical skills to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems. Includes instruction in mathematics, basic electricity, solid-state fundamentals, digital concepts, and microprocessors or programmable logic controllers. Graduates should qualify for employment as an electronics engineering technician, field service technician, instrumentation technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, or production control technician.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work Credit Exp.
<b>Fall Semester</b>					
ACA	115	Success and Study Skills	0	2	0 0 1
DFT	170	Engineering Graphics	2	2	0 0 3
Either					
EGR	111	Engineer Comp and Careers	2	2	0 0 3
Or					
EGR	150	Introduction to Engineering	1	2	0 0 2
ELC	131	Circuit Analysis I	3	3	0 0 4
ENG	111	Writing and Inquiry	3	0	0 0 3
Either					
MAT	121	Algebra/Trigonometry I	2	2	0 0 3
Or					
MAT	171	Pre-calculus Algebra	3	2	0 0 4
Subtotal					(16-18)

### Spring Semester

EGR	125	Appl Software for Tech	1	2	0 0 2
ELC	117	Motors and Controls	2	6	0 0 4
ELN	150	CAD for Electronics	1	3	0 0 2
Either					
MAT	122	Algebra/ Trigonometry II	2	2	0 0 3
Or					
MAT	172	Precalculus Trigonometry	3	2	0 0 4
PHY	131	Physics – Mechanics	3	2	0 0 4
Subtotal					(15-16)

### Summer Term

ISC	112	Industrial Safety	2	0	0 0 2
ENG	114	Prof Research and Reporting	3	0	0 0 3
					Humanities Elective** 3
					Social/Behavioral Science Elective** 3
Subtotal					(11)

### Fall Semester

ELC	128	Introduction to PLC	2	3	0 0 3
ELN	131	Analog Electronics	3	3	0 0 4
ELN	133	Digital Electronics	3	3	0 0 4
					Major Course Elective*** 2-4
Subtotal					(13-15)

### Spring Semester

ELC	228	PLC Applications	2	6	0 0 4
ELN	232	Intro to Microprocessors	3	3	0 0 4
ELN	234	Communication Systems	3	3	0 0 4
MEC	276	Capstone Design Project	0	3	0 0 1
MNT	160	Industrial Fabrication	1	3	0 0 2
Subtotal					(15)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

CIS	115	Introduction to Prog/Logic	2	3	0 0 3
EGR	285	Design Project	0	4	0 0 2
ELC	213	Instrumentation	3	2	0 0 4
HYD	110	Hydraulics/Pneumatics	2	3	0 0 3
ISC	132	Mfg Quality Control	2	3	0 0 3
MAT	152	Statistical Methods I	3	2	0 0 4
MAT	271	Calculus I	3	2	0 0 4
MEC	111	Machine Processes I	1	4	0 0 3
NOS	110	Operating Systems Concepts	2	3	0 0 3
WBL	111	Work-Based Learning I	0	0	0 10 1
WBL	112	Work-Based Learning I	0	0	0 20 2
WBL	113	Work-Based Learning I	0	0	0 30 3
WBL	114	Work-Based Learning I	0	0	0 40 4
WBL	121	Work-Based Learning II	0	0	0 10 1
WBL	122	Work-Based Learning II	0	0	0 20 2
WBL	123	Work-Based Learning II	0	0	0 30 3
WBL	131	Work-Based Learning III	0	0	0 10 1
WBL	211	Work-Based Learning IV	0	0	0 10 1

**Total Semester Credit Hours in Program .....70-75**

## Electronics Engineering Technology (D40200) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Fall Semester

Class	Lab	Clinic	Work Exp.	Credit	
ELC 128		3	0	0	3
ELC 131		3	3	0	4
ELN 131		3	3	0	4
ELN 133		3	3	0	4
MAT 121		2	2	0	3
Subtotal					(18)

### Spring Semester

Class	Lab	Clinic	Work Exp.	Credit	
ACA 115		0	2	0	1
EGR 125		1	2	0	2
ELC 117		2	6	0	4
ELN 150		1	3	0	2
MAT 122		2	2	0	3
PHY 131		3	2	0	4
Subtotal					(16)

### Summer Term

Class	Lab	Clinic	Work Exp.	Credit	
ENG 111		3	0	0	3
ISC 112		2	0	0	2
Subtotal					(5)

**Total Semester Credit Hours in Program .....39**

## Electronics Engineering Technology – Basic Electronics (C40200BE) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Required Courses

Class	Lab	Clinic	Work Exp.	Credit	
ACA 115		0	2	0	1
Either					
EGR 111		2	2	0	3
Or					
EGR 150		1	2	0	2
ELC 131		3	3	0	4
EGR 125		1	2	0	2
ELC 117		2	6	0	4
Either					
MAT 121		2	2	0	3
Or					
MAT 171		3	2	0	4

**Total Semester Credit Hours in Program .....16-18**

## Electronics Engineering Technology – Advanced Electronics (C40200AE) Certificate

**Students should take the Basic Electronics Certificate prior to the Advanced Electronics Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Required Courses

Class	Lab	Clinic	Work Exp.	Credit	
ELN 131		3	3	0	4
ELN 133		3	3	0	4
ELN 232		3	3	0	4
ELN 234		3	3	0	4

**Total Semester Credit Hours in Program .....16**

## Electronics Engineering Technology – Industrial Electronics (C40200IE) Certificate

**Students should take the Basic Electronics Certificate prior to the Industrial Electronics Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Required Courses

Class	Lab	Clinic	Work Exp.	Credit	
ELC 128		2	3	0	3
ELC 228		2	6	0	4
ELN 234		3	3	0	4
ISC 112		2	0	0	2
MAT 122		2	2	0	3
Or					
MAT 172		3	2	0	4

**Total Semester Credit Hours in Program .....16-17**

**Students may earn additional certificates in the Engineering Technology Pathway programs. Speak to your faculty advisor for more information.**

### Emergency Medical Science (A45340) Associate in Applied Science Degree

The Emergency Medical Science curriculum is designed to prepare graduates to enter the workforce as paramedics. Additionally, the program can provide an Associate Degree for individuals desiring an opportunity for career enhancement. The course of study provides the student an opportunity to acquire basic and advanced life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, hospital clinical experience, and field internships with emergency medical service agencies.

Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
BIO 163	Basic Anat & Physiology	4	2	0	0	5
EMS 110	EMT	6	6	0	0	8
MED 120	Survey of Med Terminology	2	0	0	0	2
	Subtotal					(16)

<b>Spring Semester</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
EMS 122	EMS Clinical Practicum I	0	0	3	0	1
EMS 130	Pharmacology	3	3	0	0	4
EMS 131	Adv Airway Management	1	2	0	0	2
EMS 160	Cardiology I	1	3	0	0	2
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Subtotal					(15)

<b>Summer Term</b>						
EMS 220	Cardiology II	2	3	0	0	3
EMS 221	EMS Clinical Practicum II	0	0	6	0	2
EMS 260	Trauma Emergencies	1	3	0	0	2
PSY 150	General Psychology	3	0	0	0	3
	Subtotal					(10)

<b>Fall Semester</b>						
EMS 231	EMS Clinical Practicum III	0	0	9	0	3
EMS 240	Patients w/ Special Challenges	1	2	0	0	2
EMS 250	Medical Emergencies	3	3	0	0	4
EMS 270	Life Span Emergencies	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(15)

<b>Spring Semester</b>						
EMS 241	EMS Clinical Practicum IV	0	0	12	0	4
EMS 285	EMS Capstone	1	3	0	0	2
	Either					
EMS 115	Defense Tactics for EMS	1	3	0	0	2
	Or					
EMS 235	EMS Management	2	0	0	0	2
ENG 114	Prof Research & Reporting	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program .....70**

### Emergency Medical Science (A45340B) Bridge Program

The Emergency Medical Science bridge program has been established for students that have completed portions of their EMS requirements through a North Carolina community college Continuing Education program. In order to receive curriculum credit for EMS Continuing Education courses students must hold a current North Carolina EMT/PARAMEDIC credential. Students must also successfully complete a comprehensive EMS entrance examination scoring a grade of "C" or better on the examination. Individuals successfully meeting the EMS entrance requirements will need to take the following classes to complete their EMS Associate of Applied Science Degree with Blue Ridge Community College.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
BIO 163	Basic Anatomy & Physiology	4	2	0	0	5
EMS 280	Bridging Course	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
	Subtotal					(15)

<b>Spring Semester</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
EMS 235	EMS Management	2	0	0	0	2
EMS 285	EMS Capstone	1	3	0	0	2
ENG 114	Prof Research & Reporting	3	0	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Humanities Elective**					3
	Subtotal					(16)

**Total Semester Credit Hours in Program.....31**

## Emergency Medical Science (D45340)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

EMS 110	EMT	6	6	0	0	8
	Subtotal					(8)

#### Spring Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BIO 163	Basic Anatomy & Physiology	4	2	0	0	5
EMS 122	EMS Clinical Practicum I	0	0	3	0	1
EMS 130	Pharmacology	3	3	0	0	4
EMS 160	Cardiology I	1	3	0	0	2
	Subtotal					(15)

#### Summer Term

EMS 220	Cardiology II	2	3	0	0	3
EMS 221	EMS Clinical Practicum II	0	0	6	0	2
EMS 260	Trauma Emergencies	1	3	0	0	2
PSY 150	General Psychology	3	0	0	0	3
	Subtotal					(10)

#### Fall Semester

EMS 231	EMS Clinical Practicum III	0	0	9	0	3
EMS 250	Medical Emergencies	3	3	0	0	4
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(15)

#### Spring Semester

EMS 241	EMS Clinical Practicum IV	0	0	12	0	4
EMS 285	EMS Capstone	1	3	0	0	2
	Subtotal					(6)

**Total Semester Credit Hours in Program ..... 54**

## Emergency Medical Science (C45340)

### Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BIO 163	Basic Anatomy & Physiology	4	2	0	0	5
EMS 110	EMT	6	6	0	0	8
MED 120	Survey of Med Terminology	2	0	0	0	2

**Total Semester Credit Hours in Program ..... 16**

## Environmental Science Technology (A20140)

### Associate in Applied Science Degree

The Environmental Science Technology curriculum is designed to prepare individuals for employment in environmental testing/consulting and related industries.

Major emphasis is placed on biological and chemical evaluation of man's impact on his environment.

Course work includes general education, computer applications, biology, chemistry, industrial safety, and an extensive array of detailed environmentally specific classes.

Graduates should qualify for numerous positions within the industry. Employment opportunities include, but are not limited to, the following: Chemical Analysis, Biological Analysis, Water/Wastewater Treatment, EPA Compliance Inspection, Hazardous Material Handling, Waste Abatement/Removal, and Contaminated Site Assessment/Remediation.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BIO 111	General Biology	3	3	0	0	4
EHS 114	OSHA Regulations	4	0	0	0	4
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 121	Algebra/Trigonometry I	2	2	0	0	3
	Subtotal					(15)

#### Spring Semester

ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Or					
ENG 114	Prof Research and Reporting	3	0	0	0	3
BIO 140	Environmental Biology	3	0	0	0	3
BIO 140A	Environmental Biology Lab*	0	3	0	0	1
PHS 130	Earth Science	3	2	0	0	4
	Social/Behavioral Science Elective**					3
	Subtotal					(14)

#### Summer Term

CIS 110	Introduction to Computers	2	2	0	0	3
BIO 145	Ecology	3	3	0	0	4
	Major Course Elective***					3
	Subtotal					(10)

#### Fall Semester

BIO 240	Waste Management	3	0	0	0	3
CHM 131	Introduction to chemistry	3	0	0	0	3
	And					
CHM 131A	Intro to Chemistry Lab*	0	3	0	0	1
	Or					
CHM 151	General Chemistry I	3	3	0	0	4
ENV 218	Environmental Health	3	0	0	0	3
	Humanities Elective**					3
	Major Course Elective***					3
	Subtotal					(16)

#### Spring Semester

BIO 175	General Microbiology	2	2	0	0	3
	Or					
CHM 132	Organic and Biochemistry	3	3	0	0	4
ENV 214	Water Quality	3	2	0	0	4
ENV 226	Environmental Law	3	0	0	0	3
ENV 228	Environmental Issues	1	0	0	0	1
	Subtotal					(11-12)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ALT 120	Renewable Energy Tech	2	2	0	0	3
BIO 112	General Biology II	3	3	0	0	4
BIO 120	Introductory Botany	3	3	0	0	4
BIO 130	Introductory Zoology	3	3	0	0	4
BIO 163	Basic Anatomy and Physiology	4	2	0	0	5
BIO 242	Natural Resource Conserv	3	0	0	0	3
CHM 132	Organic/Biochemistry	3	3	0	0	4
EHS 215	Incident Management	3	2	0	0	4
GIS 111	Introduction to GIS	2	2	0	0	3
LID 111	LID Design Principles	2	3	0	0	3
SST 110	Intro to Sustainability	3	0	0	0	3
SST 120	Energy Use Analysis	2	2	0	0	3
SST 140	Green Bldg & Design Concepts	3	0	0	0	0
WAT 110	Basic Wastewater Trmt	2	3	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 113	Work-Based Learning I	0	0	0	30	3

**Total Semester Credit Hours in Program .....66-67**



## Environmental Science Technology

### (D20140)

#### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
BIO 111	General Biology	3	3	0	0	4
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab*	0	3	0	0	1
EHS 114	OSHA Regulations	4	0	0	0	4
MAT 121	Algebra/Trigonometry I	2	2	0	0	3
	Subtotal					(16)

#### Spring Semester

BIO 140	Environmental Biology	3	0	0	0	3
BIO 140A	Environmental Biology Lab*	0	3	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
ENV 226	Environmental Law	3	0	0	0	3
PHS 130	Earth Science	3	2	0	0	4
	Subtotal					(14)

#### Summer Term

CIS 110	Introduction to Computers	2	2	0	0	3
	Major Course Electives***					7
	Subtotal					(10)

\*Denotes a corequisite, course cannot be taken by itself.

\*\*\*Major Course Electives are to be selected from the following:

ALT 120	Renewable Energy Tech	2	2	0	0	3
BIO 112	General Biology II	3	3	0	0	4
BIO 120	Introductory Botany	3	3	0	0	4
BIO 130	Introductory Zoology	3	3	0	0	4
BIO 145	Ecology	3	3	0	0	4
BIO 163	Basic Anatomy and Physiology	4	2	0	0	5
BIO 175	General Microbiology	2	2	0	0	3
BIO 240	Waste Management	3	0	0	0	3
CHM 132	Organic/Biochemistry	3	3	0	0	4
EHS 215	Incident Management	3	2	0	0	4
ENV 214	Water Quality	3	2	0	0	4
ENV 218	Environmental Health	3	0	0	0	3
ENV 222	Air Quality	3	2	0	0	4
ENV 226	Environmental Law	3	0	0	0	3
GIS 111	Introduction to GIS	2	2	0	0	3
LID 111	LID Design Principles	2	3	0	0	3
SST 110	Intro to Sustainability	3	0	0	0	3
SST 120	Ener					

gy Use Analysis		2	2	0	0	3
SST 140	Green Bldg & Design Concepts	3	0	0	0	3
WAT 110	Basic Wastewater Trmt	2	3	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 113	Work-Based Learning I	0	0	0	30	3

**Total Semester Credit Hours in Program ..... 40**

## Environmental Science Technology

### (C20140)

#### Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Required Courses

BIO 140	Environmental Biology	3	0	0	0	3
BIO 140A	Environmental Biology Lab*	0	3	0	0	1
BIO 240	Waste Management	3	0	0	0	3
EHS 114	OSHA Regulations	4	0	0	0	4
ENV 226	Environmental Law	3	0	0	0	3
	Major Course Electives***					3-4

\*\*\*Major Course Electives are to be selected from the following:

EHS 215	Incident Management	3	2	0	0	4
SST 110	Intro to Sustainability	3	0	0	0	3
SST 120	Energy Use Analysis	2	2	0	0	3
SST 140	Green Bldg & Design Concepts	3	0	0	0	3
WAT 110	Basic Wastewater Trmt	2	3	0	0	3

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program ..... 17-18**

**Esthetics Instructor (C55270)**  
**Certificate**

The Esthetics Instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of esthetics as required by the North Carolina State Board of Cosmetology. Course work includes all phases of esthetics theory laboratory instruction. Graduates should be prepared to take the North Carolina Cosmetology State Board Esthetics Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or esthetics school.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit		
					Exp.			
<b>Fall Semester</b>								
COS	253	Esthetics Instructor Concepts I	6	15	0	0	11	
							Subtotal	(11)

<b>Spring Semester</b>								
COS	254	Esthetics Instructor Concepts II	6	15	0	0	11	
							Subtotal	(11)

**Total Semester Credit Hours in Program ..... 22**

**Esthetics Technology (C55230)**  
**Certificate**

The Esthetics Technology curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment which enables students to develop manipulative skills. Course work includes instruction in all phases of professional Esthetics Technology, business/human relations, product knowledge, and other related topics. Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and cosmetic/skin care salons, as a platform artist, and in related businesses.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit		
					Exp.			

<b>Fall Semester</b>								
COS	119	Esthetics Concepts I	2	0	0	0	2	
COS	120	Esthetics Salon I	0	18	0	0	6	
							Subtotal	(8)

<b>Spring Semester</b>								
COS	125	Esthetics Concepts II	2	0	0	0	2	
COS	126	Esthetics Salon II	0	18	0	0	6	
							Subtotal	(8)

**Total Semester Credit Hours in Program ..... 16**

## Film and Video Production Technology (A30140)

### Associate in Applied Science Degree

The Film and Video Production Technology curriculum prepares students in entry-level employment in film, video, and associated media. Instruction provides training in all aspects of film and video production from pre- to post-production, preparing students for careers in the film industry or independent/artistic production.

The first year content includes extensive hands-on exposure to the entire production process. In the second year, students design and create independent short films and videos in a range of styles, genres, and formats.

Graduates may find employment as entry-level crew members in feature or short films, commercials, and industrial, educational, and documentary productions. Other opportunities include entry-level employment in pre-production and post-production areas of film and video. Graduates are also encouraged to explore careers as independent filmmakers and film/video artists.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	2	0	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
FVP 111	Intro to Film and Video	2	3	0	0	3
FVP 114	Camera and Lighting I	2	3	0	0	3
FVP 116	Sound Operations	2	3	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
Or						
MAT 171	Pre-calculus Algebra	3	2	0	0	4
	Subtotal					(16-17)

#### Spring Semester

ENG 112	Writing/Research in the Discipl	3	0	0	0	3
Or						
ENG 114	Profess Research and Report	3	0	0	0	3
FVP 112	Art Dept. Operations I	1	4	0	0	3
FVP 113	Grip and Electrical I	1	4	0	0	3
FVP 115	Camera and Lighting II	2	3	0	0	3
FVP 220	Editing I	2	3	0	0	3
	Subtotal					(15)

#### Summer Term

FVP 120	Art Dept. Operations II	1	4	0	0	3
	Humanities Elective**					3
	Major Course Elective***					1-3
	Subtotal					(7-9)

#### Fall Semester

FVP 130	Grip and Electrical II	1	4	0	0	3
FVP 212	Production Techniques I	1	12	0	0	5
FVP 221	Editing II	2	3	0	0	3
FVP 238	Software Apps for FVP	2	3	0	0	3
	Social/Behavioral Science Elective**					3
	Subtotal					(17)

#### Spring Semester

FVP 213	Production Techniques II	1	12	0	0	5
FVP 215	Production Management	2	3	0	0	3
FVP 223	Postproduction Sound Design	1	4	0	0	3
FVP 227	Multimedia Production	2	3	0	0	3
	Subtotal					(14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ART 131	Drawing I	0	6	0	0	3
ART 132	Drawing II	0	6	0	0	3
ART 135	Figure Drawing I	0	6	0	0	3
ART 171	Computer Art I	0	6	0	0	3
ART 264	Digital Photography I	1	4	0	0	4
ART 265	Digital Photography II	1	4	0	0	3
ART 266	Videography I	0	6	0	0	3
ART 267	Videography II	0	6	0	0	3
ART 271	Computer Art II	0	6	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
COM 231	Public Speaking	3	0	0	0	3
WBL 111	Work Based Learning I	0	0	0	10	1
WBL 121	Work Based Learning II	0	0	0	20	2
WBL 131	Work Based Learning III	0	0	0	30	3

**Total Hours in the Program .....69-72**

**Film and Video Production Technology  
(D30140)  
Diploma**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit		
					Exp.			
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
ENG	111	Writing and Inquiry	3	0	0	0	3	
FVP	111	Intro to Film and Video	2	3	0	0	3	
FVP	114	Camera and Lighting I	2	3	0	0	3	
FVP	116	Sound Operations	2	3	0	0	3	
Subtotal							(13)	
<b>Spring Semester</b>								
FVP	112	Art Dept. Operations I	1	4	0	0	3	
FVP	113	Grip and Electrical I	1	4	0	0	3	
FVP	215	Production Management	2	3	0	0	3	
FVP	220	Editing I	2	3	0	0	3	
Major Course Elective***							3	
Subtotal							(15)	
<b>Summer Term</b>								
MAT	143	Quantitative Literacy	2	2	0	0	3	
Or								
MAT	171	Pre-calculus Algebra	3	2	0	0	4	
Subtotal							(3-4)	
<b>Fall Semester</b>								
FVP	212	Production Techniques I	1	12	0	0	5	
FVP	238	Software Apps for FVP	2	3	0	0	3	
Subtotal							(8)	

\*\*\*Major Course Electives are to be selected from the following:

FVP	115	Camera & Lighting II	2	3	0	0	3	
FVP	221	Editing II	2	3	0	0	3	
FVP	223	Postproduction Sound Design	1	4	0	0	3	

**Total Semester Credit Hours in Program ..... 39**

**Film and Video Production Technology  
(C30140)  
Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit		
					Exp.			
<b>Fall Semester</b>								
FVP	111	Intro to Film and Video	2	3	0	0	3	
FVP	114	Camera and Lighting I	2	3	0	0	3	
FVP	116	Sound Operations	2	3	0	0	3	
Subtotal							(9)	
<b>Spring Semester</b>								
FVP	112	Art Dept. Operations I	1	4	0	0	3	
Or								
FVP	113	Grip and Electrical I	1	4	0	0	3	
FVP	220	Editing I	2	3	0	0	3	
Subtotal							(6)	

**Total Semester Credit Hours in Program ..... 15**

## Fire Protection Technology (A55240) Associate in Applied Science Degree

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes classroom and laboratory exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as hydraulics, hazardous materials, arson investigation, fire protection safety, fire suppression management, law, and codes.

Graduates should qualify for employment or advancement in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and municipal fire departments. Employed persons should have opportunities for skilled and supervisory-level positions within their current organizations.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skill	0	2	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
FIP 120	Intro to Fire Protection	3	0	0	0	3
FIP 124	Fire Prevention and Public Ed	3	0	0	0	3
FIP 128	Detection and Investigation	3	0	0	0	3
	Subtotal					(13)
<b>Spring Semester</b>						
ENG 114	Prof Research and Reporting	3	0	0	0	3
FIP 132	Building Construction	3	0	0	0	3
FIP 152	Fire Protection Law	3	0	0	0	3
FIP 220	Fire Fighting Strategies	3	0	0	0	3
FIP 228	Local Government Finance	3	0	0	0	3
	Subtotal					(15)
<b>Summer Term</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
	Humanities/Fine Arts					3
	Subtotal					(9)
<b>Fall Semester</b>						
FIP 146	Fire Protection Systems	3	2	0	0	4
FIP 230	Chem of Hazardous Mat I	5	0	0	0	5
FIP 276	Managing Fire Services	3	0	0	0	3
	Major Course Elective***					3-4
	Subtotal					(15-16)

### Spring Semester

FIP 164	OSHA Standards	3	0	0	0	3
FIP 221	Adv Fire Fighting Strategies	3	0	0	0	3
FIP 240	Fire Service Supervision	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
	Major Course Elective***					3-4
	Subtotal					(15-16)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

FIP 136	Inspections and Codes	3	0	0	0	3
FIP 224	Fire Instructor I & II	4	0	0	0	4
FIP 226	Fire Officer I & II	4	0	0	0	4
FIP 232	Hydraulics and Water	2	2	0	0	3
FIP 248	Fire Service Personnel Admin	3	0	0	0	3
FIP 256	Municipal Public Relations	3	0	0	0	3
FIP 260	Fire Protect Planning	3	0	0	0	3
FIP 277	Fire and Social Behavior	3	0	0	0	3

**Total Semester Credit Hours in Program .....67-69**

## Fire Protection Technology (D55240) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skill	0	2	0	0	1
FIP 120	Intro to Fire Protection	3	0	0	0	3
FIP 124	Fire Prevention and Public Edu	3	0	0	0	3
FIP 128	Detection and Investigation	3	0	0	0	3
FIP 146	Fire Protection Systems	3	2	0	0	4
FIP 276	Managing Fire Services	3	0	0	0	3
	Subtotal					(17)
<b>Spring Semester</b>						
FIP 132	Building Construction	3	0	0	0	3
FIP 152	Fire Protection Law	3	0	0	0	3
FIP 220	Fire Fighting Strategies	3	0	0	0	3
FIP 221	Adv Firefighting Strategies	3	0	0	0	3
FIP 228	Local Government Finance	3	0	0	0	3
FIP 240	Fire Service Supervision	3	0	0	0	3
	Subtotal					(18)
<b>Summer Term</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Subtotal					(6)

**Total Semester Credit Hours in Program .....41**



## Fire Protection Technology (C55240) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

FIP	120	Intro to Fire Protection	3	0	0	0	3
FIP	124	Fire Prevention and Public Edu	3	0	0	0	3
		Subtotal					(6)

### Spring Semester

FIP	132	Building Construction	3	0	0	0	3
FIP	152	Fire Protection Law	3	0	0	0	3
FIP	220	Firefighting Strategies	3	0	0	0	3
FIP	228	Local Government Finance	3	0	0	0	3
		Subtotal					(12)

**Total Semester Credit Hours in Program ..... 18**

## General Education (A10300)

### Associate in General Education

The Associate in General Education curriculum is designed for the academic enrichment of students who wish to broaden their education, with emphasis on personal interest, growth and development.

Course work includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers will be provided.

Through these skills, students will have a sound base for lifelong learning. Graduates are prepared for advancement within their field of interest and become better qualified for a wide range of employment opportunities.

This program is designed for students who wish to complete two years of college and are not planning to transfer to four-year institutions. Many of the courses may, however, transfer depending on the senior institution and the degree major on a course-by-course basis.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

#### Required General Education Courses

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(6)

#### Humanities/Fine Arts

(Select 3 semester credit hours from the following)

ART 111	Art Appreciation	3	0	0	0	3
DRA 111	Theater Appreciation	3	0	0	0	3
ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
ENG 233	Major American Writers	3	0	0	0	3
ENG 241	British Literature I	3	0	0	0	3
ENG 242	British Literature II	3	0	0	0	3
FRE 111	Elementary French I	3	0	0	0	3
FRE 181	French Lab 1*	0	2	0	0	1
PHI 210	History of Philosophy	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
REL 110	World Religions	3	0	0	0	3
SPA 111	Elementary Spanish I	3	0	0	0	3
SPA 181	Spanish Lab 1*	0	2	0	0	1
	Subtotal					(3)

#### Social/Behavioral Sciences

(Select 3 semester credit hours from the following)

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3
GEO 111	World Regional Geography	3	0	0	0	3
GEO 130	World Physical Geography	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3
	Subtotal					(3)

#### Mathematics/Natural Sciences

(Select at least 3 semester credit hours from the following)

BIO 111	General Biology I	3	3	0	0	4
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab I*	0	2	0	0	1
CIS 110	Intro to Computers	2	2	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 171	Pre-calculus Algebra	3	2	0	0	4
PHY 151	College Physics I	3	2	0	0	4
	Subtotal					(3)

#### Oral Communication

COM 231	Public Speaking	3	0	0	0	3
	Subtotal					(3)

#### Other Required Hours (46-47 semester credit hours)

ACA 115	Success and Study Skills	0	2	0	0	1
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**Note:** ACA 115 - Success and Study Skills is a required course for all degree and diploma programs at BRCC but is not part of the Comprehensive Articulation Agreement for transferability. Students should take this course their first semester or in the semester required by their particular program. Students who are enrolled as special credit students should take this course before they have completed 12 semester hours.

Other required hours include additional general education and professional courses. Select courses from any associate degree program offered at Blue Ridge Community College. Prerequisites and Corequisites must be met.

A maximum of 7 semester credit hours from the following may be included:

PED 110	Fit and Well for Life	1	2	0	0	2
PED 111	Physical Fitness I	0	3	0	0	1
PED 117	Weight Training I	0	2	0	0	1
PED 118	Weight Training II	0	2	0	0	1
PED 120	Walking for Fitness	0	3	0	0	1
PED 121	Walk, Jog, Run	0	3	0	0	1
PED 143	Volleyball-Beginning	0	2	0	0	1
PED 186	Dancing for Fitness	0	2	0	0	1
PED 217	Pilates I	0	2	0	0	1
PED 218	Pilates II	0	2	0	0	1
	Subtotal					(46-47)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....64-65**

## General Occupational Technology (A55280)

### Associate in Applied Science Degree

The General Occupational Technology curriculum provides individuals with an opportunity to upgrade skills and to earn an associate degree, diploma, and/or certificate by taking courses suited for individual occupational interests and or needs.

The curriculum content will be customized for students according to occupational interests and needs. A program of study for each student will be selected from any non-developmental level courses offered by the College.

Graduates will become more effective workers, better qualified for advancements within their field of employment, and become qualified for a wide range of entry-level employment opportunities.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Required General Education Courses

ACA	115	Success and Study Skills	0	2	0	0	1
ENG	111	Writing and Inquiry	3	0	0	0	3
ENG	114	Prof Research and Reporting	3	0	0	0	3
MAT	121	Algebra/ Trigonometry I	2	2	0	0	3
		Social/Behavioral Science Elective**					3
		Humanities Elective**					3
		Subtotal					(16)

Forty-nine additional credit hours must be chosen from a combination of major courses for curriculums approved to be offered by the college. Work-based Learning may be included up to a maximum of 8 semester hours of credit.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 65**

## Health Science: Therapeutic and Diagnostic Services Diploma

This curriculum is designed to prepare students for careers in the Health Sciences.

Students will complete general education courses that provide a foundation for success in nursing and allied health curricula. Students may select a career pathway that will prepare them for an entry level position in health care. Courses may also provide foundational knowledge needed in the pursuit of advanced health science degrees or programs.

Graduates should qualify for an entry-level job associated with the program major such as Emergency Medical Technician (EMT) or Advanced Emergency Medical Technician (AEMT), Medical Assistant, Nursing Assistant, Pharmacy Technician, Phlebotomist, or Massage Therapist dependent upon the selected program major.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

### Emergency Medical Science (D45910)

A program that prepares graduates to enter the workforce as Emergency Medical Technicians or Advanced Emergency Medical Technicians. The course of study provides the student an opportunity to acquire basic life support knowledge and skills by utilizing classroom instruction, practical laboratory sessions, and hospital/field internships. Students progressing through the program may be eligible to apply for both state and national certification exams. Employment opportunities include ambulance services, fire and rescue agencies, air medical services, specialty areas of hospitals, industry, educational institutions, and government agencies.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA	115	Success and Study Skills	0	2	0	0	1
BIO	165	Anatomy and Physiology I	3	3	0	0	4
EMS	110	EMT	6	6	0	0	8
HSC	110	Orientation to Health Careers	1	0	0	0	1
MED	120	Survey of Medical Terminology	2	0	0	0	2
		Subtotal					(16)

#### Spring Semester

BIO	166	Anatomy and Physiology II	3	3	0	0	4
EMS	120	Advanced EMT	4	6	0	0	6
EMS	121	AEMT Clinical Practicum I	0	0	6	0	2
ENG	111	Writing and Inquiry	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
		Subtotal					(18)

#### Summer Term

ENG	114	Prof Research and Reporting	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
		Subtotal					(6)

**Total Semester Credit Hours in Program ..... 40**

## High School Programs Career and College Promise

Success in today's global economy may require a two or four year degree, a Certificate, or Diploma. Through Career & College Promise (CCP), qualified high school juniors and seniors in North Carolina have the opportunity to pursue these options, tuition free, while they are in high school, allowing them to get a jumpstart on their workplace and college preparation.

Blue Ridge Community College offers the Career and College Promise options listed below to help advance eligible students' post-high school success:

**College Transfer** – College transfer pathways provide up to 35 hours of tuition-free course credits toward the Associate in Arts (AA) or Associate in Science (AS) degree. All the courses are a part of the Universal General Education Transfer Component (UGETC) of the Comprehensive Articulation Agreement (CAA) between the 16 universities of the UNC system and the Community College System. All universities in the UNC system have agreed to accept these courses as general education courses. A student completing these courses and the additional courses required for an AA or AS, and following the requirements of the CAA, will be able to transfer to one of the UNC schools as a junior. Many private colleges in the state also agree to the CAA. By completing an AA or AS prior to transfer, the student will save considerable time and money in pursuing four-year degrees. To begin one of these pathways, the student must be a high school junior or senior, be "college-ready", and have a weighted high school GPA of 3.0.

**Career Technical Education** – Technical careers programs provide a means for high school students to earn tuition-free course credits at an NC Community College toward a job credential, Certificate or Diploma in a technical career. BRCC offers a number of programs leading to CCP Certificates or Diplomas—as shown below.

**Henderson County Early College High School (HCECHS)** – HCECHS allows high school students to begin earning tuition-free college credits in the ninth grade. HCECHS is housed at BRCC on the Henderson County Campus. All offices and classrooms for the high school are located in the Industrial Skills Center. Admittance to HCECHS is through an application and selection process. For additional information, contact HCECHS at 120 Alumni Way, Flat Rock, NC 28731, phone (828) 697-4561, or on the web at [www.hendersoncountypublicschoolsnc.org](http://www.hendersoncountypublicschoolsnc.org).

Special admission procedures for the High School programs are outlined on page 11.

\*Denotes a corequisite, course cannot be taken by itself.

## College Transfer Pathways for High School Students

### Associate in Arts Pathway (P1012C)

This pathway is designed for high school juniors and seniors who wish to begin study toward an Associate in Arts degree and a baccalaureate degree in a non-STEM major.

Class Lab Clinic Work Credit  
Exp.

#### Required courses (7 semester hours required)

ACA 122	College Transfer Success	0	2	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(7)

#### Humanities/Fine Arts (9 semester hours required)

Three courses from at least two different discipline areas must be selected. A literature course must be taken.

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
	Subtotal					(9)

#### Social/Behavioral Science (9 semester hours required)

Three courses from at least two different areas must be selected. HIS 111 or HIS 112 must be taken.

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3
HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
	Subtotal					(9)

Mathematics (Select one course from the following.)

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
	Subtotal					(3-4)

#### Natural Sciences (4 semester credit hours required from the following.)

AST 111	Descriptive Astronomy*	3	0	0	0	3
AST 111A	Descriptive Astronomy Lab*	0	2	0	0	1
BIO 111	General Biology I	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
	Subtotal					(4)

#### \*OPTIONAL GENERAL EDUCATION HOURS (0-8 SHC)

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of "C" or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

**Total Semester Credit Hours in Pathway ..... 32-41\***



## Associate in Science Pathway (P1042C)

This pathway is designed for high school juniors and seniors who wish to begin study toward an Associate in Arts degree and a baccalaureate degree in a STEM or technical major.

### Required courses (7 semester hours required)

Course	Class	Lab	Clinic	Work	Credit	
ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
ACA 122	College Transfer Success	0	2	0	0	1
Subtotal					(7)	

### Humanities/Fine Arts (6 semester hours required)

Two courses from two different discipline areas must be selected.

One must be a literature course.

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
Subtotal					(6)	

### Social/Behavioral Science (6 semester hours required)

Two courses from two different discipline areas must be selected. HIS 111 or HIS 112 must be taken.

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3
HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
Subtotal					(6)	

Mathematics (Select two courses from the following.)

MAT 171	Pre-Calculus Algebra	3	2	0	0	4
MAT 172	Pre-Calculus Trigonometry	3	2	0	0	4
MAT 271	Calculus I	3	2	0	0	4
Subtotal					(8)	

### Natural Sciences (One science sequence must be selected from the following.)

BIO 111	General Biology I	3	3	0	0	4
And						
BIO 112	General Biology II	3	3	0	0	4
Or						
CHM 151	General Chemistry I	3	3	0	0	4
And						
CHM 152	General Chemistry II	3	3	0	0	4
Or						
PHY 151	College Physics I	3	2	0	0	4
And						
PHY 152	College Physics II	3	2	0	0	4
Subtotal					(8)	

### \*OPTIONAL GENERAL EDUCATION HOURS (0-8 SHC)

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of "C" or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

**Total Semester Credit Hours in Pathway ..... 35-43\***

## Career Technical Education Pathways for High School Students

### Alternative Transportation Technology

#### Diploma – CCP (D60420P)

Course	Class	Lab	Clinic	Work	Credit	
ACA 115	Success and Study Skills	0	2	0	0	1
ATT 115	Green Trans Safety and Service	1	2	0	0	2
ATT 125	Hybrid-Electric Transportation	2	4	0	0	4
ATT 130	Biofuels for Transportation	2	3	0	0	3
ATT 135	Gaseous Fuels for Transport	2	3	0	0	3
ATT 140	Emerging Transport Tech	2	3	0	0	3
AUT 151	Brake Systems	2	3	0	0	3
AUT 151A	Brake Systems Lab	0	3	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 110	Math Measurement & Literacy	2	2	0	0	3
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 130	Intro to Sustainable Transport	2	2	0	0	3
TRN 140	Transport Climate Control	1	2	0	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	0	2
TRN 170	PC Skills for Transport	1	2	0	0	2
TRN 180	Basic Welding for Transport	1	4	0	0	3

**Total Semester Credit Hours in Program ..... 45**

### Alternative Transportation Technology – Alternative Fuels Certificate – CCP (C60420FP)

Course	Class	Lab	Clinic	Work	Credit	
ATT 115	Green Trans Safety and Service	1	2	0	0	2
ATT 135	Gaseous Fuels for Trans	2	3	0	0	3
ATT 140	Emerging Transport Tech	2	3	0	0	3
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 130	Intro to Sustainable Trans	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 18**

### Automotive Light-Duty Diesel Technology

#### Diploma – CCP (D60430P)

Course	Class	Lab	Clinic	Work	Credit	
ACA 115	Success and Study Skills	0	2	0	0	1
ATT 130	Biofuels for Transportation	2	3	0	0	3
AUT 141	Suspension & Steering Sys	2	3	0	0	3
AUT 141A	Suspension & Steering Sys Lab	0	3	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
LDD 112	Intro to Light-Duty Diesel	2	2	0	0	3
LDD 116	Diesel Electric Drive	2	6	0	0	4
LDD 181	LDD Fuel Systems	2	6	0	0	4
LDD 183	Air, Exhaust, Emissions	2	6	0	0	4
MAT 110	Math Measurement & Literacy	2	2	0	0	3
TRN 110	Intro to Transport Tech	1	2	0	0	2
TRN 120	Basic Transport Electricity	4	3	0	0	5
TRN 130	Intro to Sustainable Trans	2	2	0	0	3
TRN 140	Transport Climate Control	1	2	0	0	2
TRN 140A	Transport Climate Control Lab*	1	2	0	0	2
TRN 170	PC Skills for Transport	1	2	0	0	2
TRN 180	Basic Welding for Transport	1	4	0	0	3

**Total Semester Credit Hours in Program ..... 48**

**Automotive Light-Duty Diesel Technology - Light-Duty Diesel Fuel Systems Certificate – CCP (C60430LP)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
LDD	112	Intro Light-Duty Diesel	2	2	0	0	3	
LDD	181	LDD Fuel Systems	2	6	0	0	4	
LDD	183	Air, Exhaust, Emissions	2	6	0	0	4	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	

**Total Semester Credit Hours in Program ..... 18****Automotive Systems Technology Diploma – CCP (D60160P)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
ACA	115	Success and Study Skills	0	2	0	0	1	
AUT	113	Automotive Servicing I	0	6	0	0	2	
AUT	141	Suspension and Steering Sys	2	3	0	0	3	
AUT	141A	Suspension and Steering Lab*	0	3	0	0	1	
AUT	151	Brake Systems	2	3	0	0	3	
AUT	151A	Brake Systems Lab*	0	3	0	0	1	
AUT	181	Engine Performance 1	2	3	0	0	3	
AUT	181A	Engine Performance 1 Lab*	0	3	0	0	1	
AUT	183	Engine Performance 2	2	6	0	0	4	
ENG	111	Writing and Inquiry	3	0	0	0	3	
MAT	110	Math Measurement & Literacy	2	2	0	0	3	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	
TRN	130	Intro to Sustainable Trans	2	2	0	0	3	
TRN	140	Transport Climate Control	1	2	0	0	2	
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2	
TRN	170	PC Skills for Transport	1	2	0	0	2	
TRN	180	Basic Welding for Transport	1	4	0	0	3	
TRN	180A	Basic Welding for Trans Lab*	0	3	0	0	1	

**Total Semester Credit Hours in Program ..... 45****Automotive Systems Technology – Mobile Equipment Technician Certificate – CCP (C60160MP)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	
TRN	140	Transport Climate Control	1	2	0	0	2	
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2	
TRN	170	PC Skills for Transport	1	2	0	0	2	
TRN	180	Basic Welding for Transport	1	4	0	0	3	
TRN	180A	Basic Welding for Trans Lab*	0	3	0	0	1	

**Total Semester Credit Hours in Program ..... 17****Automotive Systems Technology – Chassis Technician Certificate – CCP (C60160CP)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
AUT	141	Suspension and Steering	2	3	0	0	3	
AUT	141A	Suspension and Steering Lab*	0	3	0	0	1	
AUT	151	Brake Systems	2	3	0	0	3	
AUT	151A	Brake Systems Lab*	0	3	0	0	1	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	
TRN	170	PC Skills for Transport	1	2	0	0	2	

**Total Semester Credit Hours in Program ..... 17****Business Administration Certificate – CCP (C25120P)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
BUS	110	Introduction to Business	3	0	0	0	3	
BUS	115	Business Law I	3	0	0	0	3	
BUS	137	Principles of Management	3	0	0	0	3	
CIS	110	Introduction to Computers	3	0	0	0	3	
MKT	120	Principles of Marketing	3	0	0	0	3	

**Total Semester Credit Hours in Program ..... 15****Collision Repair and Refinishing Technology Diploma – CCP (D60130P)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
ACA	115	Success and Study Skills	0	2	0	0	1	
AUB	111	Painting and Refinishing I	2	6	0	0	4	
AUB	121	Non-Structural Damage I	1	4	0	0	3	
AUB	131	Structural Damage I	2	4	0	0	4	
AUB	136	Plastics and Adhesives	1	4	0	0	3	
AUB	160	Body Shop Operations	1	0	0	0	1	
AUB	162	Autobody Estimating	1	2	0	0	2	
ENG	111	Writing and Inquiry	3	0	0	0	3	
MAT	110	Math Measurement & Literacy	2	2	0	0	3	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	120	Basic Transport Electricity	4	3	0	0	5	
TRN	140	Transport Climate Control	1	2	0	0	2	
TRN	140A	Transport Climate Control Lab*	1	2	0	0	2	
TRN	170	PC Skills for Transport	1	2	0	0	2	
TRN	180	Basic Welding for Transport	1	4	0	0	3	
TRN	180A	Basic Welding for Trans Lab*	0	3	0	0	1	

**Total Semester Credit Hours in Program ..... 41****Collision Repair and Refinishing – Insurance Estimating Certificate – CCP (C60130IP)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
AUB	111	Painting and Refinishing I	2	6	0	0	4	
AUB	121	Non-Structural Damage I	1	4	0	0	3	
AUB	131	Structural Damage I	2	4	0	0	4	
AUB	160	Body Shop Operations	1	0	0	0	1	
AUB	162	Autobody Estimating	1	2	0	0	2	
TRN	110	Intro to Transport Tech	1	2	0	0	2	
TRN	170	PC Skills for Transport	1	2	0	0	2	

**Total Semester Credit Hours in Program ..... 18****Computer-Integrated Machining Diploma – CCP (D50210P)**

			Class	Lab	Clinic	Work	Credit	
						Exp.		
ACA	115	Success and Study Skills	0	2	0	0	1	
BPR	111	Print Reading	1	2	0	0	2	
CIS	110	Introduction to Computers	2	2	0	0	3	
DFT	151	CAD I	2	3	0	0	3	
DFT	154	Intro Solid Modeling	2	3	0	0	3	
ENG	111	Writing and Inquiry	3	0	0	0	3	
MAC	111	Machining Technology I	2	12	0	0	6	
MAC	112	Machining Technology II	2	12	0	0	6	
MAC	121	Intro to CNC	2	0	0	0	2	
MAC	122	CNC Turning	1	3	0	0	2	
MAC	124	CNC Milling	1	3	0	0	2	
MAC	151	Machining Calculations	1	2	0	0	2	
MAT	143	Quantitative Literacy	2	2	0	0	3	

**Total Semester Credit Hours in Program ..... 38**

**Computer-Integrated Machining – CNC Turning Operator Certificate – CCP (C50210TP)**

	Class	Lab	Clinic	Work Credit	Exp.
BPR 111	Print Reading	1	2	0	0 2
MAC 111	Machining Technology I	2	12	0	0 6
MAC 112	Machining Technology II	2	12	0	0 6
MAC 121	Intro to CNC	2	0	0	0 2
MAC 122	CNC Turning	1	3	0	0 2

**Total Semester Credit Hours in Program ..... 18**

**Computer-Integrated Machining – CNC Milling Operator Certificate – CCP (C50210MP)**

	Class	Lab	Clinic	Work Credit	Exp.
BPR 111	Print Reading	1	2	0	0 2
MAC 111	Machining Technology I	2	12	0	0 6
MAC 112	Machining Technology II	2	12	0	0 6
MAC 121	Intro to CNC	2	0	0	0 2
MAC 124	CNC Milling	1	3	0	0 2

**Total Semester Credit Hours in Program ..... 18**

**Computer-Integrated Machining – Machinist – Entry Certificate – CCP (C50210EP)**

	Class	Lab	Clinic	Work Credit	Exp.
BPR 111	Print Reading	1	2	0	0 2
ISC 112	Industrial Safety	2	0	0	0 2
MAC 111	Machining Technology I	2	12	0	0 6
MAC 112	Machining Technology II	2	12	0	0 6
MAC 151	Machining Calculations	1	2	0	0 2

**Total Semester Credit Hours in Program ..... 18**

**Computer-Integrated Machining - Engine Machine Shop Certificate – CCP (C50210AP)**

	Class	Lab	Clinic	Work Credit	Exp.
AUT 116	Engine Repair	2	3	0	0 3
AUT 116A	Engine Repair Lab*	0	3	0	0 1
MAC 111	Machining Technology I	2	12	0	0 6
MAC 112	Machining Technology II	2	12	0	0 6
MAC 151	Machining Calculations	1	2	0	0 2

**Total Semester Credit Hours in Program ..... 18**

**Cosmetology Certificate – CCP (C55140P)**

	Class	Lab	Clinic	Work Credit	Exp.
COS 111	Cosmetology Concepts I	4	0	0	0 4
COS 112	Salon I	0	24	0	0 8
COS 113	Cosmetology Concepts II	4	0	0	0 4
COS 114	Salon II	0	24	0	0 8
COS 115	Cosmetology Concepts III	4	0	0	0 4
COS 116	Salon III	0	12	0	0 4
COS 240	Contemporary Design	1	3	0	0 2

**Total Semester Credit Hours in Program ..... 34**

**Criminal Justice Technology Diploma – CCP (D55180P)**

	Class	Lab	Clinic	Work Credit	Exp.
ACA 115	Success and Study Skills	0	2	0	0 1
CJC 111	Intro to Criminal Justice	3	0	0	0 3
CJC 112	Criminology	3	0	0	0 3
CJC 113	Juvenile Justice	3	0	0	0 3
CJC 121	Law Enforcement Operations	3	0	0	0 3
CJC 131	Criminal Law	3	0	0	0 3
CJC 141	Corrections	3	0	0	0 3
CJC 212	Ethics & Community Relations	3	0	0	0 3
CJC 221	Investigative Principles	3	2	0	0 4
CJC 222	Criminalistics	3	0	0	0 3
CJC 231	Constitutional Law	3	0	0	0 3
ENG 111	Writing and Inquiry	3	0	0	0 3
MAT 110	Math Measurement & Literacy	3	0	0	0 3

**Total Semester Credit Hours in Program ..... 38**

**Criminal Justice Technology Certificate – CCP (C55180P)**

	Class	Lab	Clinic	Work Credit	Exp.
CJC 111	Intro to Criminal Justice	3	0	0	0 3
CJC 131	Criminal Law	3	0	0	0 3
CJC 212	Ethics & Community Relations	3	0	0	0 3
CJC 221	Investigative Principles	3	2	0	0 4

**Total Semester Credit Hours in Program ..... 13**

**Education–Infant and Toddler Certificate – CCP (C55290P)**

	Class	Lab	Clinic	Work Credit	Exp.
EDU 119	Intro to Early Child Education	4	0	0	0 4
EDU 131	Child, Family, & Community	3	0	0	0 3
EDU 144	Child Development I	3	0	0	0 3
EDU 153	Health, Safety & Nutrition	3	0	0	0 3
EDU 234	Infants, Toddlers, & Twos	3	0	0	0 3

**Total Semester Credit Hours in Program ..... 16**

**Education–Preschool Certificate – CCP (C55220PP)**

	Class	Lab	Clinic	Work Credit	Exp.
EDU 119	Intro to Early Child Education	4	0	0	0 4
EDU 131	Child, Family, & Community	3	0	0	0 3
EDU 145	Child Development II	3	0	0	0 3
EDU 146	Child Guidance	3	0	0	0 3
EDU 153	Health, Safety and Nutrition	3	0	0	0 3
EDU 184	Early Childhood Intro Practicum	1	3	0	0 2

**Total Semester Credit Hours in Program ..... 18**

### Electronics Engineering Technology Diploma – CCP (D40200P)

			Class	Lab	Clinic	Work Credit	Exp.
ACA	115	Success and Study Skills	0	2	0	0	1
DFT	170	Engineering Graphics	2	2	0	0	3
EGR	125	Appl Software for Tech	1	2	0	0	2
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	117	Motors and Controls	2	6	0	0	4
ELC	128	Intro to PLC	2	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	0	4
ELN	131	Analog Electronics	3	3	0	0	4
ELN	133	Digital Electronics	3	3	0	0	4
ENG	111	Writing and Inquiry	3	0	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
MAT	122	Algebra/Trigonometry II	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 38**

### Electronics Engineering Technology Basic Certificate – CCP (C40200P)

			Class	Lab	Clinic	Work Credit	Exp.
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	128	Intro to PLC	2	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	0	4
ELN	131	Analog Electronics I	3	3	0	0	4
ELN	133	Digital Electronics	3	3	0	0	4

**Total Semester Credit Hours in Program ..... 17**

### Film and Video Production Technology Certificate – CCP (C30140P)

			Class	Lab	Clinic	Work Credit	Exp.
FVP	111	Intro to Film and Video	2	3	0	0	3
FVP	112	Art Dept. Operations I	1	4	0	0	3
FVP	114	Camera & lighting I	2	3	0	0	3
FVP	116	Sound Operations	2	3	0	0	3
FVP	220	Editing I	2	3	0	0	3

**Total Semester Credit Hours in Program ..... 15**

### Fire Protection Technology Diploma – CCP (D55240P)

			Class	Lab	Clinic	Work Credit	Exp.
ACA	115	Success & Study Skills	0	2	0	0	1
CIS	110	Intro to Computers	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
FIP	120	Intro to Fire Protection	3	0	0	0	3
FIP	124	Fire Prevention and Public Ed	3	0	0	0	3
FIP	128	Detection and Investigation	3	0	0	0	3
FIP	132	Building Construction	3	0	0	0	3
FIP	146	Fire Protection Systems	3	2	0	0	4
FIP	152	Fire Protection Law	3	0	0	0	3
FIP	220	Fire-Fighting Strategies	3	0	0	0	3
FIP	221	Adv Fire Fighting Strategies	3	0	0	0	3
FIP	228	Local Govt Finance	3	0	0	0	3
FIP	240	Fire Service Supervision	3	0	0	0	3
FIP	276	Managing Fire Services	3	0	0	0	3

**Total Semester Credit Hours in Program ..... 41**

### Fire Protection Technology Certificate – CCP (C55240P)

			Class	Lab	Clinic	Work Credit	Exp.
FIP	120	Intro to Fire Protection	3	0	0	0	3
FIP	124	Fire Prevention and Public Ed	3	0	0	0	3
FIP	132	Building Construction	3	0	0	0	3
FIP	152	Fire Protection Law	3	0	0	0	3
FIP	220	Fire Fighting Strategies	3	0	0	0	3
FIP	228	Local Govt Finance	3	0	0	0	3

**Total Semester Credit Hours in Program ..... 18**

### Interpreter Education Certificate – CCP (C55300P)

			Class	Lab	Clinic	Work Credit	Exp.
ASL	111	Elementary ASL I	3	0	0	0	3
ASL	112	Elementary ASL II	3	0	0	0	3
ASL	181	ASL Lab I	0	2	0	0	1
ASL	182	ASL Lab 2	0	2	0	0	1
ASL	211	Intermediate ASL I	3	0	0	0	3
ASL	212	Intermediate ASL II	3	0	0	0	3
ASL	281	ASL Lab 3	0	2	0	0	1
IPP	111	Intro to Interpretation	3	0	0	0	3

**Total Semester Credit Hours in Program ..... 18**

### Mechanical Engineering Technology Diploma – CCP (D40320P)

			Class	Lab	Clinic	Work Credit	Exp.
ACA	115	Success and Study Skills	0	2	0	0	1
DFT	154	Intro to Solid Modeling	2	3	0	0	3
DFT	170	Engineering Graphics	2	2	0	0	3
EGR	125	Appl Software for Tech	1	2	0	0	2
EGR	130	Engineering Cost Control	2	2	0	0	3
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	128	Intro to PLC	2	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	0	4
ENG	111	Writing and Inquiry	3	0	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
MEC	145	Mfg Materials I	2	3	0	0	3
PHY	131	Physics – Mechanics	3	2	0	0	4

**Total Semester Credit Hours in Program ..... 39**

### Mechanical Engineering Technology Certificate – CCP (C40320P)

			Class	Lab	Clinic	Work Credit	Exp.
EGR	150	Introduction to Engineering	1	2	0	0	2
EGR	250	Statics and Strength of Materials	4	3	0	0	5
DFT	170	Engineering Graphics	2	2	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
PHY	131	Physics-Mechanics	3	2	0	0	4

**Total Semester Credit Hours in Program ..... 17**

### Mechatronics Engineering Technology Diploma – CCP (D40350P)

	Class	Lab	Clinic	Work Exp.	Credit
ACA 115				0	1
ATR 112				2	3
DFT 170				2	3
EGR 125				1	2
EGR 150				1	2
ELC 117				2	4
ELC 128				2	3
ELC 131				3	4
ELC 213				3	4
ENG 111				3	3
ISC 112				2	2
MAT 121				2	3
MAT 122				2	3
PHY 131				3	4

**Total Semester Credit Hours in Program ..... 41**

### Mechatronics Engineering Technology – Basic Certificate – CCP (C40350BP)

	Class	Lab	Clinic	Work Exp.	Credit
ATR 112				2	3
DFT 170				2	3
EGR 125				1	2
EGR 150				1	2
ELC 128				2	3
ISC 112				2	2

**Total Semester Credit Hours in Program ..... 15**

### Mechatronics Engineering Technology - Maintenance Certificate – CCP (C40350MP)

	Class	Lab	Clinic	Work Exp.	Credit
ATR 112				2	3
EGR 125				1	2
ELC 117				2	4
ELC 128				2	3
ELC 131				3	4

**Total Semester Credit Hours in Program ..... 16**

### Simulation and Game Development Certificate – CCP (C25450P)

	Class	Lab	Clinic	Work Exp.	Credit
SGD 111				2	3
SGD 112				2	3
SGD 113				2	3
SGD 114				2	3
SGD 212				2	3
WEB 120				2	3

**Total Semester Credit Hours in Program ..... 18**

### Web Technologies Certificate – CCP (C25290P)

	Class	Lab	Clinic	Work Exp.	Credit
DBA 110				2	3
WEB 110				2	3
WEB 111				2	3
WEB 115				2	3
WEB 120				2	3

**Total Semester Credit Hours in Program ..... 15**

### Welding Technology Diploma – CCP (D50420P)

	Class	Lab	Clinic	Work Exp.	Credit
ACA 115				0	1
ENG 111				3	3
MAT 110				2	3
WLD 110				1	2
WLD 112				1	2
WLD 115				2	5
WLD 117				1	3
WLD 121				2	4
WLD 131				2	4
WLD 141				2	3
WLD 151				2	4
WLD 212				1	2
WLD 262				2	3

**Total Semester Credit Hours in Program ..... 39**

### Welding Technology – Multiple Plate Welding Certificate – CCP (C50420EP)

	Class	Lab	Clinic	Work Exp.	Credit
WLD 110				1	2
WLD 115				2	5
WLD 121				2	4
WLD 131				2	4

**Total Semester Credit Hours in Program ..... 15**



## Horticulture Technology (A15240)

### Associate in Applied Science Degree

Plant Systems Pathway Description: These curricula are designed to prepare individuals for various careers in horticulture. Classroom instruction and practical laboratory applications of horticultural principles and practices are included in the program of study.

Course work includes plant identification, pest management, plant science and soil science. Also included are courses in sustainable plant production and management, landscaping, and the operation of horticulture businesses.

Graduates should qualify for employment in a variety of positions associated with nurseries, garden centers, greenhouses, landscape operations, governmental agencies/parks, golf courses, sports complexes, highway vegetation, turf maintenance companies, and private and public gardens. Graduates should also be prepared to take the North Carolina Pesticide Applicator's Examination and/or the North Carolina Certified Plant Professional Examination.

Horticulture Technology program description: A program that focuses on the general production and management of cultivated plants, shrubs, flowers, foliage, trees, groundcovers, and related plant materials; the management of technical and business operations connected with horticultural services; and the basic scientific principles needed to understand plants and their management and care.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
HOR 112	Landscape Design I	2	3	0	0	3
HOR 124	Nursery Operations	2	3	0	0	3
Or						
HOR 134	Greenhouse Operations	2	2	0	0	3
HOR 160	Plant Materials I	2	2	0	0	3
HOR 162	Applied Plant Science	2	2	0	0	3
HOR 168	Plant Propagation	2	2	0	0	3
Subtotal						(16)
<b>Spring Semester</b>						
ENG 111	Writing and Inquiry	3	0	0	0	3
HOR 161	Plant Materials II	2	2	0	0	3
HOR 166	Soils and Fertilizers	2	2	0	0	3
HOR 235	Greenhouse Production	2	2	0	0	3
Social/Behavioral Science Elective**						3
Subtotal						(15)
<b>Summer Term</b>						
HOR 152	Horticultural Practices	0	3	0	0	1
HOR 164	Horticulture Pest Mgt	2	2	0	0	3
HOR 265	Advanced Plant Materials	1	2	0	0	2
MAT 110	Math Measurement & Literacy	2	2	0	0	3
Subtotal						(9)

### Fall Semester

AGR 121	Biological Pest Mgmt	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
Or						
ENG 114	Prof Research and Reporting	3	0	0	0	3
Major Course Elective***						9
Subtotal						(16)

### Spring Semester

WBL 111	Work-Based Learning I	0	0	0	10	1
Humanities Elective**						3
Major Course Elective***						9
Subtotal						(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

AGR 265	Organic Crop Prod: Spring	2	2	0	0	3
AGR 267	Permaculture	2	2	0	0	3
BUS 280	REAL Small Business	4	0	0	0	4
CIS 110	Introduction to Computers	2	2	0	0	3
GCM 220	Golf Course Maint Systems	3	0	0	0	3
HOR 114	Landscape Construction	2	2	0	0	3
HOR 116	Landscape Management I	2	2	0	0	3
HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 142	Fruit & Vegetable Prod	1	2	0	0	2
HOR 154	Intro to Horticultural Therapy	2	4	0	0	4
HOR 213	Landscape Design II	2	2	0	0	3
HOR 215	Landscape Irrigation	2	2	0	0	3
HOR 225	Nursery Production	2	2	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3
HOR 257	Arboriculture Practices	1	3	0	0	2
HOR 271	Garden Center Mgmt	2	0	0	0	2
TRF 110	Intro Turfgrass Cult & ID	3	2	0	0	4
TRF 260	Adv Turfgrass Mgmt	3	2	0	0	4
VEN 135	Intro to Viticulture	3	2	0	0	4

**Total Hours Required in Program .....68**

**Students may earn a more focused Associate of Applied Science degree in Horticulture Technology by selecting the Major Course Electives included in the following pathways:**

### Ornamental Plant Production Pathway (A15240H)

HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 142	Fruit & Veg Production	1	2	0	0	2
HOR 225	Nursery Production	2	2	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3
HOR 257	Arboriculture Practices	1	3	0	0	2

### Landscape Pathway (A15240L)

HOR 114	Landscape Construction	2	2	0	0	3
HOR 116	Landscape Management I	2	2	0	0	3
HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 213	Landscape Design II	2	2	0	0	3
HOR 215	Landscape Irrigation	2	2	0	0	3
TRF 110	Intro Turfgrass Cult & ID	3	2	0	0	4

### Small Fruits/Specialty Crops Pathway (A15240S)

AGR 265	Organic Crop Prod: Spring	2	2	0	0	3
HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 142	Fruit & Vegetable Prod	1	2	0	0	2
HOR 225	Nursery Production	2	2	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3
VEN 135	Intro to Viticulture	3	2	0	0	4

### Turfgrass Management Pathway (A15240T)

GCM 220	Golf Course Maint Systems	3	0	0	0	3
HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 215	Landscape Irrigation	2	2	0	0	3
HOR 257	Arboriculture Practices	1	3	0	0	2
TRF 110	Intro Turfgrass Cult & ID	3	2	0	0	4
TRF 260	Adv Turfgrass Mgmt	3	2	0	0	4

### Horticulture Technology (D15240) Diploma

Class Lab Clinic Work Credit Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
HOR 112	Landscape Design I	2	3	0	0	3
HOR 124	Nursery Operations	2	3	0	0	3
Or						
HOR 134	Greenhouse Operations	2	2	0	0	3
HOR 160	Plant Materials I	2	2	0	0	3
HOR 162	Applied Plant Science	2	2	0	0	3
HOR 168	Plant Propagation	2	2	0	0	3
Subtotal						(16)

#### Spring Semester

ENG 111	Writing and Inquiry	3	0	0	0	3
HOR 161	Plant Materials II	2	2	0	0	3
HOR 166	Soils and Fertilizers	2	2	0	0	3
HOR 235	Greenhouse Production	2	2	0	0	3
Subtotal						(12)

#### Summer Term

HOR 152	Horticultural Practices	0	3	0	0	1
HOR 164	Horticulture Pest Mgt	2	2	0	0	3
HOR 265	Advanced Plant Materials	1	2	0	0	2
MAT 110	Math Measurement & Literacy	2	2	0	0	3
Subtotal						(9)

**Total Hours Required in Program ..... 37**

### Horticulture – Landscape (C15240L) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

#### Required Courses

HOR 112	Landscape Design I	2	3	0	0	3
HOR 114	Landscape Construction	2	2	0	0	3
HOR 116	Landscape Management I	2	2	0	0	3
HOR 213	Landscape Design II	2	2	0	0	3
HOR 215	Landscape Irrigation	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 15**

### Horticulture – Turfgrass Management (C15240TM) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

#### Required Courses

GCM 220	Golf Course Maint Systems	3	0	0	0	3
HOR 118	Equipment Op & Maint	1	3	0	0	2
HOR 215	Landscape Irrigation	2	2	0	0	3
TRF 110	Intro Turfgrass Cult & ID	3	2	0	0	4
TRF 260	Adv Turfgrass Mgmt	3	2	0	0	4

**Total Semester Credit Hours in Program ..... 16**

## Horticulture – Ornamental Plant Production (C15240H) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AGR 121	Biological Pest Mgmt	3	0	0	0	3
HOR 168	Plant Propagation	2	2	0	0	3
HOR 225	Nursery Production	2	2	0	0	3
HOR 235	Greenhouse Production	2	2	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3
HOR 257	Arboriculture Practices	1	3	0	0	2

**Total Semester Credit Hours in Program ..... 17**

## Horticulture – Small Fruits/Specialty Crops (C15240SF) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

AGR 121	Biological Pest Mgmt	3	0	0	0	3
AGR 265	Organic Crop Prod: Spring	2	2	0	0	3
HOR 142	Fruit & Vegetable Prod	1	2	0	0	2
HOR 225	Nursery Production	2	2	0	0	3
HOR 235	Greenhouse Production	2	2	0	0	3
HOR 245	Hort Specialty Crops	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 17**

## Interpreter Education (A55300) Associate in Applied Science Degree

The Interpreter Education curriculum prepares individuals to work as entry-level Sign Language Interpreters who will provide communication access in interview and interactive settings. In addition, this curriculum provides in-service training for working interpreters who want to upgrade their skills.

Course work includes the acquisition of American Sign Language (ASL); grammar, structure, and sociolinguistic properties; cognitive processes associated with interpretation between ASL and English; the structure and character of the deaf community; and acquisition of consecutive and simultaneous interpreting skills.

Entry-level jobs for para-professional interpreters are available in educational systems or a variety of community settings. Individuals may choose from part-time, full-time, or self-employment/free-lance positions, or apply language skills to other human service related areas.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
ASL 111	Elementary ASL I	3	0	0	0	3
ASL 112	Elementary ASL II	3	0	0	0	3
ASL 181	ASL Lab I	0	2	0	0	1
ASL 182	ASL Lab 2	0	2	0	0	1
ASL 225	Global Deaf Community	3	0	0	0	3
IPP 111	Introduction to Interpretation	3	0	0	0	3
Subtotal						(15)

### Spring Semester

ASL 211	Intermediate ASL I	3	0	0	0	3
ASL 250	Linguistics of ASL	3	0	0	0	3
ASL 281	ASL Lab 3	0	2	0	0	1
ENG 111	Writing and Inquiry	3	0	0	0	3
IPP 112	Comparative Cultures	3	0	0	0	3
Subtotal						(13)

### Summer Term

ASL 212	Intermediate ASL II	3	0	0	0	3
ASL 282	ASL Lab 4	0	2	0	0	1
Either						
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
Or						
ENG 114	Prof. Research and Reporting	3	0	0	0	3
IPP 152	ASL/English Translation	3	0	0	0	3
Humanities Elective**						3
Subtotal						(13)

### Fall Semester

ASL 221	Advanced ASL I	3	0	0	0	3
ASL 222	Advanced ASL II	3	0	0	0	3
IPP 161	Consecutive Interpreting	2	6	0	0	5
MAT 143	Quantitative Literacy	2	2	0	0	3
Social/Behavioral Science Elective**						3
Subtotal						(17)

### Spring Semester

IPP 221	Simultaneous Interpreting I	2	6	0	0	5
IPP 240	Ethical Standards & Practices I	3	0	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 115	Work-Based Learning Seminar	1	0	0	0	1
Major Course Elective***						3
Subtotal						(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

EDU 119	Intro to Early Childhood Edu	4	0	0	0	4
EDU 131	Child, Family and Community	3	0	0	0	3
EDU 144	Child Development I	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
EDU 146	Child Guidance	3	0	0	0	3
IPP 243	Religious Interpreting	2	2	0	0	3
IPP 245	Educational Interpreting Issues	3	0	0	0	3
OST 141	Med Terms I – Med Office	3	0	0	0	3
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 122	Work-Based Learning II	0	0	0	20	2
WBL 123	Work-Based Learning II	0	0	0	30	3

**Total Semester Credit Hours in Program ..... 71**

## Interpreter Education (D55300) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
ACA	115	Success and Study Skills	0	2	0	0	1	
ASL	111	Elementary ASL I	3	0	0	0	3	
ASL	112	Elementary ASL II	3	0	0	0	3	
ASL	181	ASL Lab I	0	2	0	0	1	
ASL	182	ASL Lab 2	0	2	0	0	1	
ASL	225	Global Deaf Community	3	0	0	0	3	
IPP	111	Introduction to Interpretation	3	0	0	0	3	
		Subtotal						(15)
<b>Spring Semester</b>								
ASL	211	Intermediate ASL I	3	0	0	0	3	
ASL	250	Linguistics of ASL	3	0	0	0	3	
ASL	281	ASL Lab 3	0	2	0	0	1	
ENG	111	Writing and Inquiry	3	0	0	0	3	
IPP	112	Comparative Cultures	3	0	0	0	3	
		Subtotal						(13)
<b>Summer Term</b>								
ASL	212	Intermediate ASL II	3	0	0	0	3	
ASL	282	ASL Lab 4	0	2	0	0	1	
IPP	152	ASL/English Translation	3	0	0	0	3	
MAT	143	Quantitative Literacy	2	2	0	0	3	
		Subtotal						(10)
<b>Total Semester Credit Hours in Program .....</b>								<b>38</b>

## Interpreter Education (C55300) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit	
						Exp.		
<b>Fall Semester</b>								
ASL	111	Elementary ASL I	3	0	0	0	3	
ASL	112	Elementary ASL II	3	0	0	0	3	
ASL	181	ASL Lab I	0	2	0	0	1	
ASL	182	ASL Lab 2	0	2	0	0	1	
IPP	111	Introduction to Interpretation	3	0	0	0	3	
		Subtotal						(11)
<b>Spring Semester</b>								
ASL	211	Intermediate ASL I	3	0	0	0	3	
		Subtotal						(3)
<b>Summer Term</b>								
ASL	212	Intermediate ASL II	3	0	0	0	3	
ASL	281	ASL Lab 3	0	2	0	0	1	
		Subtotal						(4)
<b>Total Semester Credit Hours in Program .....</b>								<b>18</b>



**Manicuring Instructor (C55380)  
Certificate**

The Manicuring Instructor curriculum provides a course of study covering the skills needed to teach the theory and practices of manicuring as required by the North Carolina State Board of Cosmetology.

Course work includes all phases of manicuring theory laboratory instruction.

Graduates should be prepared to take the North Carolina Cosmetology State Board Manicuring Instructor Licensing Exam and upon passing be qualified for employment in a cosmetology or manicuring school.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

COS 251	Manicure Instructor Concepts	8	0	0	0	8
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**Spring Semester**

COS 252	Manicure Instructor Practicum	0	15	0	0	5
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**Total Semester Credit Hours in Program ..... 13**

# Mechanical Engineering Technology (A40320)

## Associate in Applied Science Degree

Engineering and Technology Pathway Description: These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial technology managers, or research technicians.

Mechanical Engineering Technology program description: A course of study that prepares the students to use basic engineering principles and technical skills to design, develop, test, and troubleshoot projects involving mechanical systems. Includes instruction in principles of mechanics, applications to specific engineering systems, design testing procedures, prototype and operational testing and inspection procedures, manufacturing system-testing procedures, test equipment operation and maintenance, computer applications, critical thinking, planning and problem solving, and oral and written communications. Graduates of the curriculum will find employment opportunities in the manufacturing or service sectors of engineering technology. Engineering technicians may obtain professional certification by application to organizations such as ASQC, SME, and NICET

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit	
					Exp.		
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
DFT	170	Engineering Graphics	2	2	0	0	3
		Either					
EGR	111	Engineer Comp and Careers	2	2	0	0	3
		Or					
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	131	Circuit Analysis I	3	3	0	0	4
ENG	111	Writing and Inquiry	3	0	0	0	3
		Either					
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Or					
MAT	171	Precalculus Algebra	3	2	0	0	4
		Subtotal					(16-18)

<b>Spring Semester</b>							
DFT	154	Intro Solid Modeling	2	3	0	0	3
EGR	125	Appl Software for Tech	1	2	0	0	2
MEC	145	Mfg. Materials I	2	3	0	0	3
		Either					
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
		Or					
MAT	172	Precalculus Trigonometry	3	2	0	0	4
PHY	131	Physics – Mechanics	3	2	0	0	4
		Or					
PHY	151	College Physics I	3	2	0	0	4
		Subtotal					(15-16)

<b>Summer Term</b>							
ENG	114	Professional Research/Report	3	0	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
		Social/Behavioral Science Elective**					3
		Subtotal					(8)

<b>Fall Semester</b>							
COM	231	Public Speaking	3	0	0	0	3
ELC	128	Intro to PLC	2	3	0	0	3
EGR	250	Statics and Strength of Materials	4	3	0	0	5
HYD	110	Hydraulics/Pneumatics	2	3	0	0	3
		Major Course Electives***					2-3
		Subtotal					(16-17)

<b>Spring Semester</b>							
EGR	130	Engineering Cost Control	2	2	0	0	3
MEC	260	Fund of Machine Design	2	3	0	0	3
MEC	276	Capstone Design Project	0	3	0	0	1
		Humanities Elective**					3
		Major Course Elective***					2-3
		Subtotal					(12-13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BUS	110	Introduction to Business	3	0	0	0	3
CHM	151	General Chemistry	3	3	0	0	4
DFT	151	CAD I	2	3	0	0	3
ISC	132	Mfg Quality Control	2	3	0	0	3
MAC	121	Intro to CNC	2	0	0	0	2
MAT	152	Statistical Methods I	3	2	0	0	4
MAT	271	Calculus I	3	2	0	0	4
MEC	110	Introduction to CAD/CAM	1	2	0	0	2
MEC	111	Machine Processes I	1	4	0	0	3
MEC	155	Environmental Benign Mfg	2	2	0	0	3
WBL	111	Work-Based Learning I	0	0	0	10	1
WBL	112	Work-Based Learning I	0	0	0	20	2
WBL	113	Work-Based Learning I	0	0	0	30	3
WBL	114	Work-Based Learning I	0	0	0	40	4
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	122	Work-Based Learning II	0	0	0	20	2
WBL	123	Work-Based Learning II	0	0	0	30	3
WBL	131	Work-Based Learning III	0	0	0	10	1
WBL	132	Work-Based Learning III	0	0	0	20	2
WBL	211	Work-Based Learning IV	0	0	0	10	1
WBL	212	Work-Based Learning IV	0	0	0	20	2
WLD	212	Intert Gas Welding	1	3	0	0	2
WLD	262	Inspection and Testing	2	2	0	0	3

**Total Semester Credit Hours in Program .....67-72**

## Mechanical Engineering Technology

### (A40320PR)

#### Associate in Applied Science Degree-Pre Engineering Technology

This program focuses on maximizing transferability to a four year Engineering Technology Program. Students planning to transfer to a four year Engineering Technology Program must contact the admissions office at the receiving institution to determine which courses should be completed prior to transfer.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit	
					Exp.		
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
DFT	170	Engineering Graphics	2	2	0	0	3
EGR	111	Engineer Comp and Careers	2	2	0	0	3
MAT	171	Precalculus Algebra	3	2	0	0	4
CHM	151	General Chemistry I	3	3	0	0	4
		Subtotal					(15)
<b>Spring Semester</b>							
DFT	154	Intro Solid Modeling	2	3	0	0	3
MEC	145	Mfg. Materials I	2	3	0	0	3
MAT	172	Precalculus Trigonometry	3	2	0	0	4
PHY	131	Physics – Mechanics	3	2	0	0	4
		Or					
PHY	151	College Physics I	3	2	0	0	4
		Subtotal					(14)
<b>Summer Term</b>							
ENG	111	Writing and Inquiry	3	0	0	0	3
		Social/Behavioral Science Elective**					3
		Subtotal					(6)
<b>Fall Semester</b>							
ENG	114	Professional Research/Report	3	0	0	0	3
EGR	250	Statics and Strength of Materials	4	3	0	0	5
HYD	110	Hydraulics/Pneumatics	2	3	0	0	3
MAT	271	Calculus I	3	2	0	0	4
		Subtotal					(15)
<b>Spring Semester</b>							
COM	231	Public Speaking	3	0	0	0	3
MEC	260	Fund of Machine Design	2	3	0	0	3
MEC	276	Capstone Design Project	0	3	0	0	1
		Humanities Elective**					3
		Major Course Elective***					4
		Subtotal					(14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

MAT	152	Statistical Methods I	3	2	0	0	4
WBL	111	Work-Based Learning I	0	0	0	10	1
WBL	112	Work-Based Learning I	0	0	0	20	2
WBL	113	Work-Based Learning I	0	0	0	30	3
WBL	114	Work-Based Learning I	0	0	0	40	4
WBL	121	Work-Based Learning II	0	0	0	10	1
WBL	122	Work-Based Learning II	0	0	0	20	2
WBL	123	Work-Based Learning II	0	0	0	30	3
WBL	131	Work-Based Learning III	0	0	0	10	1
WBL	132	Work-Based Learning III	0	0	0	20	2
WBL	211	Work-Based Learning IV	0	0	0	10	1
WBL	212	Work-Based Learning IV	0	0	0	20	2

**Total Semester Credit Hours in Program ..... 64**

## Mechanical Engineering Technology

### (D40320)

#### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit	
					Exp.		
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
DFT	170	Engineering Graphics	2	2	0	0	3
		Either					
EGR	111	Engineer Comp and Careers	2	2	0	0	3
		Or					
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	128	Intro to PLC	2	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	0	4
		Either					
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Or					
MAT	171	Precalculus Algebra	3	2	0	0	4
		Subtotal					(16-18)
<b>Spring Semester</b>							
DFT	154	Intro Solid Modeling	2	3	0	0	3
EGR	130	Engineering Cost Control	2	2	0	0	3
MEC	145	Mfg. Materials I	2	3	0	0	3
		Either					
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
		Or					
MAT	172	Precalculus Trigonometry	3	2	0	0	4
		And					
PHY	131	Physics – Mechanics	3	2	0	0	4
		Or					
PHY	151	College Physics I	3	2	0	0	4
		Subtotal					(16-17)
<b>Summer Term</b>							
EGR	125	Appl Software for Tech	1	2	0	0	2
ENG	111	Writing and Inquiry	3	0	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
		Subtotal					(7)

**Total Semester Credit Hours in Program ..... 39-42**

## Mechanical Engineering Technology – Pre-Engineering (C40320PR) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

ACA	115	Success and Study Skills	0	2	0	0	1
DFT	170	Engineering Graphics	2	2	0	0	3
		Either					
EGR	111	Engineer Comp and Careers	2	2	0	0	3
		Or					
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	131	Circuit Analysis I	3	3	0	0	4
ENG	111	Writing and Inquiry	3	0	0	0	3
MAT	121	Algebra/Trigonometry I	2	2	0	0	3
		Or					
MAT	171	Precalculus Algebra	3	2	0	0	4

**Total Semester Credit Hours in Program .....16-18**

**Students may earn additional certificates in the Engineering Technology Pathway programs. Speak to your faculty advisor for more information.**

# Mechatronics Engineering Technology (A40350)

## Associate in Applied Science Degree

Engineering and Technology Pathway Description: These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial technology managers, or research technicians.

Mechatronics Engineering Technology program description: A course of study that prepares the students to use basic engineering principles and technical skills in developing and testing automated, servo mechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures. Graduates should be qualified for employment in industrial maintenance and manufacturing including assembly, testing, startup, troubleshooting, repair, process improvement, and control systems, and should qualify to sit for Packaging Machinery Manufacturers Institute (PMMI) mechatronics or similar industry examinations.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

### Summer Term

ENG 114	Prof Research and Reporting	3	0	0	0	3
ISC 112	Industrial Safety	2	0	0	0	2
	Humanities Elective**					3
	Social/Behavioral Science Elective**					3
	Subtotal					(11)

### Fall Semester

ATR 211	Robot Programming	2	3	0	0	3
EGR 250	Statics and Strength of Materials	4	3	0	0	5
ELC 128	Introduction to PLC	2	3	0	0	3
HYD 110	Hydraulics/Pneumatics I	2	3	0	0	3
	Subtotal					(14)

### Spring Semester

ATR 219	Automation Troubleshooting	1	3	0	0	2
ELC 213	Instrumentation	3	2	0	0	4
MEC 130	Mechanisms	2	2	0	0	3
MEC 276	Capstone Design Project	0	3	0	0	1
	Major Course Elective***					2-4
	Subtotal					(12-14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ELC 228	PLC Applications	2	6	0	0	4
ISC 132	Mfg Quality Control	2	3	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 271	Calculus I	3	2	0	0	4
MNT 160	Industrial Fabrication	1	3	0	0	2
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 113	Work-Based Learning I	0	0	0	30	3
WBL 114	Work-Based Learning I	0	0	0	40	4
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 122	Work-Based Learning II	0	0	0	20	2
WBL 123	Work-Based Learning II	0	0	0	30	3
WBL 131	Work-Based Learning III	0	0	0	10	1
WBL 132	Work-Based Learning III	0	0	0	20	2
WBL 211	Work-Based Learning IV	0	0	0	10	1
WBL 212	Work-Based Learning IV	0	0	0	20	2

**Total Semester Credit Hours in Program .....69-74**

Class Lab Clinic Work Credit Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
DFT 170	Engineering Graphics	2	2	0	0	3
	Either					
EGR 111	Engineer Comp and Careers	2	2	0	0	3
	Or					
EGR 150	Introduction to Engineering	1	2	0	0	2
ELC 131	Circuit Analysis I	3	3	0	0	4
ENG 111	Writing and Inquiry	3	0	0	0	3
	Either					
MAT 121	Algebra and Trigonometry I	2	2	0	0	3
	Or					
MAT 171	Pre-calculus Algebra	3	2	0	0	4
	Subtotal					(16-18)

### Spring Semester

ATR 112	Intro to Automation	2	3	0	0	3
EGR 125	Appl Software for Tech	1	2	0	0	2
ELC 117	Motors and Controls	2	6	0	0	4
	Either					
MAT 122	Algebra and Trigonometry II	2	2	0	0	3
	Or					
MAT 172	Pre-calculus Trigonometry	3	2	0	0	4
PHY 131	Physics – Mechanics	3	2	0	0	4
	Subtotal					(16-17)



**Mechatronics Engineering Technology (D40350)**  
Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit
						Exp.	
<b>Fall Semester</b>							
ACA	115	Success and Study Skills	0	2	0	0	1
		Either					
EGR	111	Engineer Comp and Careers	2	2	0	0	3
		Or					
EGR	150	Introduction to Engineering	1	2	0	0	2
ELC	128	Introduction to PLC	2	3	0	0	3
ELC	131	Circuit Analysis I	3	3	0	0	4
		Either					
MAT	121	Algebra /Trigonometry I	2	2	0	0	3
		Or					
MAT	171	Pre-calculus Algebra	3	2	0	0	4
		Subtotal					(13-15)
<b>Spring Semester</b>							
ATR	112	Intro to Automation	2	3	0	0	3
ELC	213	Instrumentation	3	2	0	0	4
		Either					
MAT	122	Algebra/Trigonometry II	2	2	0	0	3
		Or					
MAT	172	Pre-calculus Trigonometry	3	2	0	0	4
MEC	130	Mechanisms	2	2	0	0	3
PHY	131	Physics – Mechanics	3	2	0	0	4
		Subtotal					(17-18)
<b>Summer Term</b>							
EGR	125	Appl Software for Tech	1	2	0	0	2
ENG	111	Writing and Inquiry	3	0	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
		Subtotal					(7)

**Total Semester Credit Hours in Program .....37-40**

**Mechatronics Engineering Technology – Basic Technician (C40350BM)**  
Certificate

**Students should take the Mechanical Engineering - Pre-Engineering Certificate prior to the Mechatronics Engineering Technology – Basic Technician Certificate program.**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit
						Exp.	
<b>Required Courses</b>							
EGR	125	Appl Software for Tech	1	2	0	0	2
ELC	117	Motors and Controls	2	6	0	0	4
ELC	131	Circuit Analysis I	3	3	0	0	4
		Either					
MAT	122	Algebra and Trigonometry II	2	2	0	0	3
		Or					
MAT	172	Pre-calculus Trigonometry	3	2	0	0	4
PHY	131	Physics – Mechanics	3	2	0	0	4

**Total Semester Credit Hours in Program .....17-18**

**Mechatronics Engineering Technology – Maintenance Technician (C40350MM)**  
Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

			Class	Lab	Clinic	Work	Credit
						Exp.	
<b>Required Courses</b>							
ATR	112	Intro to Automation	2	3	0	0	3
ISC	112	Industrial Safety	2	0	0	0	2
ELC	117	Motors and Controls	2	6	0	0	4
		Either					
EGR	111	Engineer Comp and Careers	2	2	0	0	3
		Or					
EGR	150	Introduction to Engineering	1	2	0	0	2
MEC	130	Mechanisms	2	2	0	0	3
MNT	160	Industrial Fabrication	1	3	0	0	2

**Total Semester Credit Hours in Program .....16-17**

**Students may earn additional certificates in the Engineering Technology Pathway programs. Speak to your faculty advisor for more information.**

## Networking Technology (A25340) Associate in Applied Science Degree Program

The Networking Technology curriculum prepares individuals for employment supporting network infrastructure environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is placed on the implementation and management of network software and the implementation and management of hardware such as switches and routers. Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network industry certifications, depending on their local program.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
NET 125	Networking Basics	1	4	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
	Subtotal					(16)

<b>Spring Semester</b>						
DBA 110	Database Concepts	2	3	0	0	3
NET 126	Routing Basics	1	4	0	0	3
NOS 110	Operating Systems Concepts	2	3	0	0	3
	Humanities Elective**					3
	Social/Behavioral Elective**					3
	Subtotal					(15)

<b>Summer Term</b>						
ENG 114	Prof. Research and Reporting	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
	Subtotal					(6)

<b>Fall Semester</b>						
BUS 110	Introduction to Business	3	0	0	0	3
CTS 120	Hardware/Software Support	2	3	0	0	3
NET 225	Routing and Switching I	1	4	0	0	3
NOS 120	Linux/UNIX Single User	2	2	0	0	3
NOS 130	Windows Single User	2	2	0	0	3
	Subtotal					(15)

<b>Spring Semester</b>						
NET 226	Routing and Switching II	1	4	0	0	3
NET 240	Network Design	3	0	0	0	3
NOS 220	Linux/UNIX Admin	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Major Course Elective***					3
	Subtotal					(13)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

BUS 153	Human Resource Management	3	0	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	JAVA Programming	2	3	0	0	3
CTS 155	Tech Support Functions	2	2	0	0	3
CTS 217	Computer Train/Support	2	2	0	0	3
NOS 230	Windows Administration I	2	2	0	0	3
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 121	Work-Based Learning II	0	0	0	10	1
WEB 110	Internet/ Web Fundamentals	2	2	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 65**

## Networking Technology (D25340) Diploma Program

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
NET 125	Networking Basics	1	4	0	0	3
WEB 110	Internet/ Web Fundamentals	2	2	0	0	3
	Subtotal					(13)

<b>Spring Semester</b>						
CSC 134	C++ Programming	2	3	0	0	3
DBA 110	Database Concepts	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
NET 126	Routing Basics	1	4	0	0	3
NOS 110	Operating Systems Concepts	2	3	0	0	3
	Subtotal					(15)

<b>Fall Semester</b>						
MAT 143	Quantitative Literacy	2	2	0	0	3
NOS 130	Windows Single User	2	2	0	0	3
SEC 110	Security Concepts	2	2	0	0	3
	Subtotal					(9)

**Total Semester Credit Hours in Program ..... 37**

## Office Administration (A25370) Associate in Applied Science Degree

The Office Administration curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills. Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
OST 136	Word Processing	2	2	0	0	3
	Subtotal					(13)

### Spring Semester

ACA 120	Prin of Financial Accounting	3	2	0	0	4
CTS 125	Presentation Graphics	2	2	0	0	3
ENG 114	Prof. Research and Reporting	3	0	0	0	3
OST 134	Text Entry & Formatting	2	2	0	0	3
OST 236	Adv Word/Information Proc	2	2	0	0	3
	Subtotal					(16)

### Summer Term

OST 233	Office Publications Design	2	2	0	0	3
OST 284	Emerging Technologies	1	2	0	0	2
	Humanities Elective**					3
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(14)

### Fall Semester

COM 231	Public Speaking	3	0	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Major Course Elective***					3
	Subtotal					(15)

### Spring Semester

ACC 140	Payroll Accounting	1	2	0	0	2
BUS 270	Professional Development	3	0	0	0	3
MKT 223	Customer Service	3	0	0	0	3
OST 137	Office Software Applications	2	2	0	0	3
OST 289	Administrative Office Mgt	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(15)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ACC 150	Acct Software Application	1	2	0	0	2
BUS 110	Introduction to Business	3	0	0	0	3
BUS 125	Personal Finance	3	0	0	0	3
BUS 137	Principles of Management	3	0	0	0	3
BUS 153	Human Resource Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
BUS 280	REAL Small Business	4	0	0	0	4
ECM 210	Introduction to E-Commerce	2	2	0	0	3
MKT 120	Principles of Marketing	3	0	0	0	3
OST 131	Keyboarding	1	2	0	0	2
OST 141	Med Terms I-Med Office	3	0	0	0	3
OST 148	Med Coding Billing and Insu	3	0	0	0	3
OST 149	Medical Legal Issues	3	0	0	0	3
OST 153	Office Finance Solutions	1	2	0	0	2
OST 243	Med Office Simulation	2	2	0	0	3
WBL 113	Work-Based Learning I	0	0	0	30	3
WBL 121	Work-Based Learning II	0	0	0	10	1
WBL 122	Work-Based Learning II	0	0	0	20	2
WBL 123	Work-Based Learning II	0	0	0	30	3
WBL 131	Work-Based Learning III	0	0	0	10	1
WBL 132	Work-Based Learning III	0	0	0	20	2
WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 214	Social Media	2	2	0	0	3

**Total Semester Credit Hours in Program ..... 73**

## Office Administration (D25370) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
OST 136	Word Processing	2	2	0	0	3
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Humanities Elective**					3
	Or					
	Social/Behavioral Science Elective**					3
	Subtotal					(16)

### Spring Semester

BUS 270	Professional Development	3	0	0	0	3
OST 134	Text Entry & Formatting	2	2	0	0	3
OST 137	Office Software Applications	2	2	0	0	3
OST 236	Adv Word/Information Proc	2	2	0	0	3
OST 289	Administrative Office Mgt.	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(16)

**Summer Term**

CTS 125	Presentation Graphics	2	2	0	0	3
CTS 130	Spreadsheet	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
OST 284	Emerging Technologies	1	2	0	0	2
	Subtotal					(11)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 43**

**Office Administration – Medical Office (D25370M)**

**Diploma**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

ACA 115	Success and Study Skills	0	2	0	0	1
OST 131	Keyboarding	1	2	0	0	2
OST 136	Word Processing	2	2	0	0	3
OST 141	Medical Terms I–Med Office	3	0	0	0	3
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Subtotal					(15)

**Spring Semester**

BUS 270	Professional Development	3	0	0	0	3
OST 137	Office Software Applications	2	2	0	0	3
OST 148	Med Coding Billing and Ins	3	0	0	0	3
OST 289	Administrative Office Mgt	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Humanities Elective**					3
	Or					
	Social/Behavioral Science Elective**					3
	Subtotal					(16)

**Summer Term**

CTS 130	Spreadsheet	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
OST 149	Medical Legal Issues	3	0	0	0	3
OST 243	Medical Office Simulation	2	2	0	0	3
	Subtotal					(12)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 43**

**Office Administration – Basic Office (C25370)**

**Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

CIS 110	Introduction to Computers	2	2	0	0	3
OST 131	Keyboarding	1	2	0	0	2
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Subtotal					(11)

**Spring Semester**

OST 134	Text Entry & Formatting	2	2	0	0	3
OST 136	Word Processing	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(7)

**Total Semester Credit Hours in Program ..... 18**

**Office Administration – Medical Office (C25370M)**

**Certificate**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

OST 141	Medical Terms I - Med Office	3	0	0	0	3
OST 153	Office Finance Solutions	1	2	0	0	2
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Subtotal					(11)

**Spring Semester**

OST 136	Word Processing	2	2	0	0	3
OST 148	Med Coding Billing and Insu	3	0	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(7)

**Total Semester Credit Hours in Program ..... 18**

## Office Administration – Basic Office Bookkeeping (C25370B) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

CIS 110	Introduction to Computers	2	2	0	0	3
OST 153	Office Finance Solutions	1	2	0	0	2
OST 164	Text Editing Applications	3	0	0	0	3
OST 184	Records Management	2	2	0	0	3
	Subtotal					(11)

### Spring Semester

OST 134	Text Entry & Formatting	2	2	0	0	3
OST 136	Word Processing	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(7)

**Total Semester Credit Hours in Program ..... 18**



## Office Administration/Virtual Office Assistance (A2537B)

### Associate in Applied Science Degree

Virtual Office Assistance is a concentration under the curriculum title of Office Administration. The curriculum is designed to prepare individuals to become independent contractors who possess the ability to offer administrative support services via e-mail, courier, fax, and telephone.

Students will acquire office skills required in today's business environment including utilization of word processing, spreadsheets, desktop publishing, and presentation graphics software. Coursework includes an introduction to the implementation of electronic commerce via the Internet and an introduction to telecommunications.

Graduates are prepared to pass examinations for Microsoft Office Specialist Certification and are able to become self-employed contractors or work for an established virtual office service. Some graduates will prefer to gain experience working in a traditional office environment.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
OST 136	Word Processing	2	2	0	0	3
OST 164	Text Editing and Applications	3	0	0	0	3
OST 171	Intro to Virtual Office	2	2	0	0	3
	Subtotal					(13)

<b>Spring Semester</b>						
CTS 130	Spreadsheet	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
OST 134	Text Entry and Formatting	2	2	0	0	3
OST 236	Adv Word/Information Proc	2	2	0	0	3
	Subtotal					(15)

<b>Summer Term</b>						
CTS 125	Presentation Graphics	2	2	0	0	3
ECM 210	Introduction to E-Commerce	2	2	0	0	3
ENG 114	Prof Research and Reporting	3	0	0	0	3
OST 233	Office Publications Design	2	2	0	0	3
	Subtotal					(12)

<b>Fall Semester</b>						
OST 153	Office Finance Solutions	1	2	0	0	2
OST 184	Records Management	2	2	0	0	3
	Humanities Elective**					3
	Social/Behavioral Science Elective**					3
	Major Course Elective***					3
	Subtotal					(14)

### Spring Semester

MKT 223	Customer Service	3	0	0	0	3
OST 271	Office Web Technologies	2	2	0	0	3
OST 272	Virtual Office Capstone	1	2	0	0	2
OST 289	Administrative Office Mgt	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(12)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

ACC 120	Prin of Financial Accounting	3	2	0	0	4
ACC 150	Acct Software Application	1	2	0	0	2
BUS 110	Introduction to Business	3	0	0	0	3
BUS 153	Human Resource Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
BUS 270	Professional Development	3	0	0	0	3
BUS 280	REAL Small Business	4	0	0	0	4
OST 141	Med Terms I-Med Office	3	0	0	0	3
OST 148	Med Coding Bill and Insurance	3	0	0	0	3
OST 149	Med Legal Issues	3	0	0	0	3

**Total Semester Credit Hours in Program ..... 66**

## Office Administration/Virtual Office Assistance (D2537B)

### Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
OST 136	Word Processing	2	2	0	0	3
OST 153	Office Finance Solutions	1	2	0	0	2
OST 164	Text Editing and Applications	3	0	0	0	3
OST 171	Intro to Virtual Office	2	2	0	0	3
OST 184	Records Management	2	2	0	0	3
	Subtotal					(15)

<b>Spring Semester</b>						
CIS 110	Introduction to Computers	2	2	0	0	3
MKT 223	Customer Service	3	0	0	0	3
OST 289	Administrative Office Mgt	2	2	0	0	3
OST 271	Office Web Technologies	2	2	0	0	3
OST 272	Virtual Office Capstone	1	2	0	0	2
WBL 111	Work-Based Learning I	0	0	0	10	1
	Subtotal					(15)

**Summer Term**

CTS	125	Presentation graphics	2	2	0	0	3
CTS	130	Spreadsheet	2	2	0	0	3
ECM	210	Introduction to E-Commerce	2	2	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
		Humanities Elective**					3
		Or					
		Social/Behavioral Science Elective**					3
		Subtotal					(15)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 45**

## Office Administration/ Virtual Office Assistance (C2537B) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester**

CIS	110	Introduction to Computers	2	2	0	0	3
OST	136	Word Processing	2	2	0	0	3
OST	164	Text Editing Applications	3	0	0	0	3
OST	171	Intro to Virtual Office	2	2	0	0	3
		Subtotal					(12)

**Spring Semester**

CTS	130	Spreadsheet	2	2	0	0	3
OST	272	Virtual Office Capstone	1	2	0	0	2
WBL	111	Work-Based Learning I	0	0	0	10	1
		Subtotal					(6)

**Total Semester Credit Hours in Program ..... 18**

## Simulation and Game Development (A25450)

### Associate in Applied Science Degree

The Simulation and Game Development curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming and management.

Students will receive hands-on training in design, 3D modeling, software engineering, database administration and programming for the purpose of creating simulations and games.

Graduates should qualify for employment as designers, artists, animators, programmers, database administrators, testers, quality assurance analysts, engineers and administrators in the entertainment industry, the health care industry, engineering, forensics, education, NASA and government agencies.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
ART 131	Drawing I	0	6	0	3
CIS 110	Introduction to Computers	2	2	0	3
SGD 111	Introduction to SGD	2	3	0	3
SGD 112	SGD Design	2	3	0	3
	Major Course Elective***				3
	Subtotal				(16)
<b>Spring Semester</b>					
ART 171	Computer Art	0	6	0	3
ENG 111	Writing and Inquiry	3	0	0	3
SGD 113	SGD Programming	2	3	0	3
SGD 114	3D Modeling	2	3	0	3
SGD 212	SGD Design II	2	3	0	3
	Subtotal				(15)
<b>Summer Term</b>					
ENG 114	Prof. Research and Reporting	3	0	0	3
MAT 143	Quantitative Literacy	2	2	0	3
	Humanities Elective*				3
	Subtotal				(9)
<b>Fall Semester</b>					
SGD 117	Art for Games	2	3	0	3
SGD 174	SG Level Design	2	3	0	3
SGD 213	SGD Programming II	2	3	0	3
SGD 214	3D Modeling II	2	3	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	3
	Subtotal				(15)
<b>Spring Semester</b>					
SGD 162	3D SG Animation	2	3	0	3
SGD 289	SGD Project	2	3	0	3
WBL 111	Work-Based Learning I	0	0	0	10
WEB 287	Web E-Portfolio	1	2	0	2
	Social/Behavioral Science Elective**				3
	Subtotal				(12)

\*\* Humanities Electives are to be selected from the courses listed on page 45. ART 114 or ART 115 is strongly recommended.

\*\* Social/Behavioral Science Electives are to be selected from the courses listed on page 45.

\*\*\*Major Course Electives are to be selected from the following:

ART 120	3D Printing for the Artist	2	3	0	0	3
ART 121	Two Dimensional Design	0	6	0	0	3
ART 135	Figure Drawing I	0	6	0	0	3
BUS 110	Introduction to Business	3	0	0	0	3
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	Java Programming	2	3	0	0	3
CSC 153	C# Programming	2	3	0	0	3
SGD 165	SG Character Development	2	3	0	0	3
SGD 172	Virtual SG Environments	2	3	0	0	3
SGD 244	3D Modeling III	2	3	0	0	3
TDP 110	Intro to 3D Printing	2	3	0	0	3
TDP 140	Precision 3D Printing	2	3	0	0	3
TDP 289	3D Printing Project	2	3	0	0	3
WBL 112	Work-Based Learning I	0	0	0	20	2
WBL 113	Work-Based Learning I	0	0	0	30	3

**Total Semester Credit Hours in Program ..... 67**

## Simulation and Game Development (D25450) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Exp.	Credit
<b>Fall Semester</b>					
ACA 115	Success and Study Skills	0	2	0	1
ART 131	Drawing I	0	6	0	3
CIS 110	Introduction to Computers	2	2	0	3
SGD 111	Introduction to SGD	2	3	0	3
SGD 112	SGD Design	2	3	0	3
	Subtotal				(13)
<b>Spring Semester</b>					
ART 171	Computer Art	0	6	0	3
ENG 111	Writing and Inquiry	3	0	0	3
SGD 113	SGD Programming	2	3	0	3
SGD 114	3D Modeling	2	3	0	3
SGD 212	SGD Design II	2	3	0	3
	Subtotal				(15)
<b>Summer Term</b>					
ENG 114	Prof. Research and Reporting	3	0	0	3
	Subtotal				(3)
<b>Fall Semester</b>					
SGD 117	Art for Games	2	3	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	3
	Subtotal				(6)
<b>Spring Semester</b>					
SGD 162	3D SG Animation	2	3	0	3
SGD 289	SGD Project	2	3	0	3
WBL 111	Work-Based Learning I	0	0	0	10
WEB 287	Web E-Portfolio	1	2	0	2
	Social/Behavioral Science Elective**				3
	Subtotal				(12)

**Total Semester Credit Hours in Program ..... 37**

### Simulation and Game Development - Game Design (C25450) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit Exp.	
<b>Fall Semester</b>					
SGD 111	Introduction to SGD	2	3	0	3
SGD 112	SGD Design	2	3	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	3
	Subtotal				(9)
<b>Spring Semester</b>					
SGD 113	SGD Programming	2	3	0	3
SGD 117	Art for Games	2	3	0	3
	Subtotal				(6)
<b>Fall Semester</b>					
SGD 212	SGD Design II	2	3	0	3
	Subtotal				(3)

**Total Semester Credit Hours in Program ..... 18**

### Simulation and Game Development – Game Art (C25450A) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit Exp.	
<b>Fall Semester</b>					
ART 131	Drawing I	0	6	0	3
SGD 111	Introduction to SGD	2	3	0	3
	Subtotal				(6)
<b>Spring Semester</b>					
ART 171	Computer Art I	0	6	0	3
SGD 114	3D Modeling I	2	3	0	3
	Subtotal				(6)
<b>Fall Semester</b>					
SGD 117	Art for Games	2	3	0	3
	Subtotal				(3)

**Total Semester Credit Hours in Program ..... 15**

### Simulation and Game Development – Game Programming (C25450B) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit Exp.	
<b>Fall Semester</b>					
CIS 110	Intro to Computers	2	2	0	3
	Subtotal				(3)
<b>Spring Semester</b>					
CSC 153	C# Programming	2	3	0	3
SGD 113	SGD Programming	2	3	0	3
	Subtotal				(6)
<b>Fall Semester</b>					
SGD 213	SGD Programming II	2	3	0	3
SGD 174	SG Level Design	2	3	0	3
	Subtotal				(6)

**Total Semester Credit Hours in Program ..... 15**

### Simulation and Game Development – Modeling (C25450M) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work Credit Exp.	
<b>Fall Semester</b>					
ART 131	Drawing I	0	6	0	3
	Subtotal				(3)
<b>Spring Semester</b>					
ART 171	Computer Art I	0	6	0	3
SGD 114	3D Modeling I	2	3	0	3
	Subtotal				(6)
<b>Fall Semester</b>					
SGD 117	Art for Games	2	3	0	3
SGD 214	3D Modeling II	2	3	0	3
	Subtotal				(6)

**Total Semester Credit Hours in Program ..... 15**

## Simulation and Game Development – Character Design (C25450C) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ART 131	Drawing I	0	6	0	0	3
	Subtotal					(3)

### Spring Semester

ART 135	Figure Drawing	0	6	0	0	3
ART 171	Computer Art I	0	6	0	0	3
SGD 114	3D Modeling I	2	3	0	0	3
	Subtotal					(9)

### Fall Semester

SGD 165	SG Character Development	2	3	0	0	3
	Subtotal					(3)

**Total Semester Credit Hours in Program ..... 15**

## Simulation and Game Development – Three-Dimensional Printing (C25450T) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

CIS 110	Introduction to Computers	2	2	0	0	3
TDP 110	Intro to 3D Printing	2	3	0	0	3
	Subtotal					(6)

### Spring Semester

ART 120	3D Printing for the Artist	2	3	0	0	3
TDP 140	Precision 3D Printing	2	3	0	0	3
	Subtotal					(6)

### Fall Semester

TDP 289	3D Printing Project	2	3	0	0	3
	Subtotal					(3)

**Total Semester Credit Hours in Program ..... 15**



### Surgical Technology (A45740) Associate in Applied Science Degree

The Surgical Technology curriculum prepares individuals to assist in the care of the surgical patient in the operating room and to function as a member of the surgical team.

Students will apply theoretical knowledge to the care of patients undergoing surgery and develop skills necessary to prepare supplies, equipment, and instruments; maintain aseptic conditions; prepare patients for surgery; and assist surgeons during operations.

The Surgical Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, FL 33756; Phone: 727-210-2350; Fax: 727-210-2354; www.caahep.org by the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 110, Littleton, CO 80120; Phone: 303-694-9262; Fax: 303-741-3655; www.arcstsa.org.

Graduates will take the National Certification Examination administered by the National Board of Surgical Technology and Surgical Assisting (NBSTSA) within thirty (30) days of completion. Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physician offices, and central supply processing units.

This curriculum complies with the standard approved by the State Board of Community Colleges. Special admission procedures apply to this program. See page 12 for details.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

**Fall Semester**

		Class	Lab	Clinic	Work	Credit	
					Exp.		
ACA 115	Success and Study Skills	0	2	0	0	1	
BIO 163	Basic Anatomy/Physiology	4	2	0	0	5	
ENG 111	Writing and Inquiry	3	0	0	0	3	
SUR 110	Introduction to Surgical Tech	3	0	0	0	3	
SUR 111	Periop Patient Care	5	6	0	0	7	
	Subtotal						(19)

**Spring Semester**

BIO 175	General Microbiology	2	2	0	0	3	
SUR 122	Surgical Procedures I	5	3	0	0	6	
SUR 123	SUR Clinical Practice I	0	0	21	0	7	
	Subtotal						(16)

**Summer Term**

PSY 150	General Psychology	3	0	0	0	3	
SUR 134	Surgical Procedures II	5	0	0	0	5	
SUR 135	SUR Clinical Practice II	0	0	12	0	4	
SUR 137	Prof Success Prep	1	0	0	0	1	
	Subtotal						(13)

**Fall Semester**

CIS 110	Introduction to Computers	2	2	0	0	3	
ENG 114	Prof Research and Reporting	3	0	0	0	3	
SUR 212*	SUR Clinical Supplement	0	0	12	0	4*	
	Social /Behavioral Science Elective**					3	
	Humanities Elective**					3	
	Subtotal						(12 or 16)

**Spring Semester**

BUS 137	Principles of Management	3	0	0	0	3	
SUR 210	Advanced SUR Clinical Practice	0	0	6	0	2	
SUR 211	Advanced Theoretical Concepts	2	0	0	0	2	
	Subtotal						(7)

\*SUR 212 (SUR Clinical Supplement) is required for students who have completed the Surgical Technology Diploma Program and wish to continue with advanced placement in the Surgical Technology Associate in Applied Science degree program. This course may be waived with documentation of having worked 500 hours or primarily scrubbed 125 surgical cases.

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program ..... 67 or 71**

### Surgical Technology (D45740) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

ACA 115	Success and Study Skills	0	2	0	0	1	
BIO 163	Basic Anatomy/Physiology	4	2	0	0	5	
ENG 111	Writing and Inquiry	3	0	0	0	3	
SUR 110	Introduction to Surgical Tech	3	0	0	0	3	
SUR 111	Periop Patient Care	5	6	0	0	7	
	Subtotal						(19)

**Spring Semester**

BIO 175	General Microbiology	2	2	0	0	3	
SUR 122	Surgical Procedures I	5	3	0	0	6	
SUR 123	SUR Clinical Practice I	0	0	21	0	7	
	Subtotal						(16)

**Summer Term**

PSY 150	General Psychology	3	0	0	0	3	
SUR 134	Surgical Procedures II	5	0	0	0	5	
SUR 135	SUR Clinical Practice II	0	0	12	0	4	
SUR 137	Profess Success Preparation	1	0	0	0	1	
	Subtotal						(13)

**Total Semester Credit Hours in Program ..... 48**

## Transfer Program Associate in Arts (A10100)

The Associate in Arts degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the student will have opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use. The program is divided into a 31-32 SHC Universal General Education Transfer Component (UGETC) and a 28-29 SHC Degree Completion Component. Courses selected should be chosen carefully to match the requirements of the university or college where the student plans to transfer. Other than course sequences governed by pre-requisites, the two components may be completed in any order.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of two-year associate in arts programs who are admitted to constituent institutions of The University of North Carolina to transfer with junior status.

Community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions. Course substitutions may invalidate the protections afforded under the Comprehensive Articulation Agreement.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. Prerequisites for International Languages may include FRE 110 or SPA 110.

### Universal General Education Transfer Component (UGETC)

	Class	Lab	Clinic	Work	Credit	
				Exp.		

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(6)

#### Humanities/Fine Arts (9 semester hours required)

(Three courses from at least two different discipline areas must be selected. A literature course must be taken either in the Universal General Education Transfer Component, the Degree Completion Component, or as an Elective.)

##### Art

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3

##### Communications

COM 231	Public Speaking	3	0	0	0	3
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##### Literature

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3

##### Music

MUS 110	Music Appreciation	3	0	0	0	3
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##### Philosophy

PHI 240	Introduction to Ethics	3	0	0	0	3
	Subtotal					(9)

**Social/Behavioral Science** (9 semester hours required. Three courses from at least two different areas must be selected. HIS 111 or HIS 112 must be taken either in the Universal General Education Transfer Component or the Degree Completion Component.)

##### Economics

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3

##### History

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3

##### Political Science

POL 120	American Government	3	0	0	0	3
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##### Psychology

PSY 150	General Psychology	3	0	0	0	3
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##### Sociology

SOC 210	Introduction to Sociology	3	0	0	0	3
	Subtotal					(9)

#### Natural Sciences (4 semester credit hours required from the following. AST 111 and AST 111A must be taken together.)

AST 111	Descriptive Astronomy	3	0	0	0	3
AST 111A	Descriptive Astronomy Lab	0	2	0	0	1
BIO 111	General Biology I	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
	Subtotal					(4)

#### Mathematics (Select one course from the following.)

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
	Subtotal					(3-4)

## Degree Completion Component

#### Required Courses

All AA students are required to take the following course. Course should preferably be taken the first semester, but no later than the second semester.

ACA 122	College Transfer Success	0	2	0	0	1
	Subtotal					(1)

## General Education Courses

Students must select 13-14 SHC of additional general education courses from the Universal General Education Transfer Component above and/or the following General Education Courses. A minimum of 45 SHC of UGETC and General Education Courses must be taken. These courses should be carefully selected in consultation with advisors at the University where the student plans to transfer. Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Courses marked with an asterisk (\*) have a corresponding lab which must be taken at the same time.

ANT 210	General Anthropology	3	0	0	0	3
ASL 111	Elementary ASL I	3	0	0	0	3
ASL 112	Elementary ASL II	3	0	0	0	3
ASL 211	Intermediate ASL I	3	0	0	0	3
ASL 212	Intermediate ASL II	3	0	0	0	3
BIO 112	General Biology II	3	3	0	0	4
BIO 120	Introductory Botany	3	3	0	0	4
BIO 130	Introductory Zoology	3	3	0	0	4
BIO 140	Environmental Biology*	3	0	0	0	3
BIO 140A	Environmental Biology Lab	0	3	0	0	1
CHM 131	Introduction to Chemistry*	3	0	0	0	3
CHM 131A	Intro. to Chemistry Lab	0	3	0	0	1

CHM 132	Organic and Biochemistry	3	3	0	0	4	BIO 242	Natural Resource Conservation	3	0	0	0	3
CHM 152	General Chemistry II	3	3	0	0	4	BUS 110	Introduction to Business	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3	BUS 115	Business Law I	3	0	0	0	3
CIS 115	Intro to Prog & Logic	2	3	0	0	3	BUS 228	Business Statistics	2	2	0	0	3
COM 120	Intro Interpersonal Com	3	0	0	0	3	CHM 251	Organic Chemistry I	3	3	0	0	4
COM 140	Intro Intercultural Com	3	0	0	0	3	CHM 252	Organic Chemistry II	3	3	0	0	4
DRA 111	Theatre Appreciation	3	0	0	0	3	CJC 111	Intro to Criminal Justice	3	0	0	0	3
DRA 112	Literature of the Theatre	3	0	0	0	3	CJC 121	Law Enforcement Operations	3	0	0	0	3
DRA 211	Theatre History I	3	0	0	0	3	CJC 141	Corrections	3	0	0	0	3
DRA 212	Theatre History II	3	0	0	0	3	COM 160	Small Group Communication	3	0	0	0	3
ECO 151	Survey of Economics	3	0	0	0	3	CSC 134	C++ Programming	2	3	0	0	3
ENG 233	Major American Writers	3	0	0	0	3	CSC 151	JAVA Programming	2	3	0	0	3
ENG 241	British Literature I	3	0	0	0	3	DFT 170	Engineering Graphics	2	2	0	0	3
ENG 242	British Literature II	3	0	0	0	3	DRA 120	Voice for Performance	3	0	0	0	3
ENG 252	Western World Literature	3	0	0	0	3	DRA 124	Readers Theatre	3	0	0	0	3
ENG 262	World Literature II	3	0	0	0	3	DRA 130	Acting I	0	6	0	0	3
FRE 111	Elementary French I*	3	0	0	0	3	DRA 131	Acting II	0	6	0	0	3
FRE 112	Elementary French II*	3	0	0	0	3	DRA 140	Stagecraft I	0	6	0	0	3
FRE 211	Intermediate French I*	3	0	0	0	3	DRA 141	Stagecraft II	0	6	0	0	3
FRE 212	Intermediate French II*	3	0	0	0	3	DRA 145	Stage Make-up	1	2	0	0	2
GEO 111	World Regional Geography	3	0	0	0	3	DRA 170	Play Production I	0	9	0	0	3
HUM 110	Technology and Society	3	0	0	0	3	DRA 171	Play Production II	0	9	0	0	3
HUM 160	Introduction to Film	3	0	0	0	3	DRA 211	Theatre History I	3	0	0	0	3
MAT 172	Precalculus Trigonometry	3	2	0	0	4	DRA 212	Theatre History II	3	0	0	0	3
MAT 271	Calculus I	3	2	0	0	4	DRA 240	Lighting for the Theatre	2	2	0	0	3
MAT 272	Calculus II	3	2	0	0	4	DRA 260	Directing	0	6	0	0	3
MAT 273	Calculus III	3	2	0	0	4	DRA 270	Play Production III	0	9	0	0	3
PHI 210	History of Philosophy	3	0	0	0	3	DRA 271	Play Production IV	0	9	0	0	3
PHI 230	Introduction to Logic	3	0	0	0	3	EGR 150	Intro to Engineering I	1	2	0	0	2
PHY 151	College Physics I	3	2	0	0	4	ENG 125	Creative Writing I	3	0	0	0	3
PHY 152	College Physics II	3	2	0	0	4	ENG 272	Southern Literature	3	0	0	0	3
PHY 251	General Physics I	3	3	0	0	4	FRE 141	Culture and Civilization	3	0	0	0	3
PHY 252	General Physics II	3	3	0	0	4	FRE 151	Francophone Literature	3	0	0	0	3
PSY 237	Social Psychology	3	0	0	0	3	FRE 181	French Lab 1*	0	2	0	0	1
PSY 241	Developmental Psychology	3	0	0	0	3	FRE 182	French Lab 2*	0	2	0	0	1
PSY 281	Abnormal Psychology	3	0	0	0	3	FRE 281	French Lab 3*	0	2	0	0	1
REL 110	World Religions	3	0	0	0	3	FRE 282	French Lab 4*	0	2	0	0	1
REL 211	Intro to Old Testament	3	0	0	0	3	GIS 111	Introduction to GIS	2	2	0	0	3
REL 212	Intro to New Testament	3	0	0	0	3	HIS 231	Recent American History	3	0	0	0	3
REL 221	Religion in America	3	0	0	0	3	HIS 236	North Carolina History	3	0	0	0	3
SOC 213	Sociology of the Family	3	0	0	0	3	HUM 123	Appalachian Culture	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3	MUS 121	Music Theory I	3	2	0	0	4
SPA 111	Elementary Spanish I*	3	0	0	0	3	MUS 122	Music Theory II	3	2	0	0	4
SPA 112	Elementary Spanish II*	3	0	0	0	3	MUS 151	Class Music I	0	2	0	0	1
SPA 211	Intermediate Spanish I*	3	0	0	0	3	MUS 152	Class Music II	0	2	0	0	1
SPA 212	Intermediate Spanish II*	3	0	0	0	3	MUS 251	Class Music III	0	2	0	0	1
	Subtotal					(13-14)	MUS 252	Class Music IV	0	2	0	0	1
<b>Electives</b>							PED 110	Fit and Well for Life	1	2	0	0	2
Select 14-15 SHC from the above courses and/or the Electives listed below. In choosing elective courses: 2 semester hours are recommended for Health and PE. CIS 110, listed under the General Education Courses above, is also recommended. Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.							PED 111	Physical Fitness I	0	3	0	0	1
ACC 120	Principles of Financial Acc	3	2	0	0	4	PED 117	Weight Training I	0	3	0	0	1
ACC 121	Principles of Managerial Acc	3	2	0	0	4	PED 118	Weight Training II	0	3	0	0	1
ART 121	Two-Dimensional Design	0	6	0	0	3	PED 119	Circuit Training	0	3	0	0	1
ART 122	Three-Dimensional Design	0	6	0	0	3	PED 120	Walking for Fitness	0	3	0	0	1
ART 131	Drawing I	0	6	0	0	3	PED 121	Walk, Jog, Run	0	3	0	0	1
ART 132	Drawing II	0	6	0	0	3	PED 122	Yoga I	0	2	0	0	1
ART 171	Computer Art I	0	4	0	0	3	PED 123	Yoga II	0	2	0	0	1
ART 231	Printmaking I	0	6	0	0	3	PED 137	Badminton	0	2	0	0	1
ART 232	Printmaking II	0	6	0	0	3	PED 139	Bowling-Beginning	0	2	0	0	1
ART 240	Painting I	0	6	0	0	3	PED 143	Volleyball-Beginning	0	2	0	0	1
ART 241	Painting II	0	6	0	0	3	PED 186	Dancing for Fitness	0	2	0	0	1
ART 264	Digital Photography I	1	4	0	0	3	PED 217	Pilates I	0	2	0	0	1
ART 265	Digital Photography II	1	4	0	0	3	PED 218	Pilates II	0	2	0	0	1
ART 266	Videography I	0	6	0	0	3	PHS 130	Earth Science	3	2	0	0	4
ART 267	Videography II	0	6	0	0	3	POL 130	State and Local Government	3	0	0	0	3
ART 271	Computer Art II	0	6	0	0	3	PSY 231	Forensic Psychology	3	0	0	0	3
ART 281	Sculpture I	0	6	0	0	3	PSY 271	Sports Psychology	3	0	0	0	3
ART 282	Sculpture II	0	6	0	0	3	SPA 141	Culture and Civilization	3	0	0	0	3
ART 283	Ceramics I	0	6	0	0	3	SPA 161	Cultural Immersion	2	3	0	0	3
ART 284	Ceramics II	0	6	0	0	3	SPA 181	Spanish Lab 1*	0	2	0	0	1
BIO 163	Basic Anat & Physiology	4	2	0	0	5	SPA 182	Spanish Lab 2*	0	2	0	0	1
BIO 165	Anatomy and Physiology I	3	3	0	0	4	SPA 221	Spanish Conversation	3	0	0	0	3
BIO 166	Anatomy and Physiology II	3	3	0	0	4	SPA 231	Reading and Composition	3	0	0	0	3
BIO 175	General Microbiology	2	2	0	0	3	SPA 281	Spanish Lab 3*	0	2	0	0	1
							SPA 282	Spanish Lab 4*	0	2	0	0	1
								Subtotal					(14-15)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....60**

## Transfer Program Associate in Engineering (A10500) – Pending State Approval

The Associate in Engineering (AE) degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of courses. Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use.

The degree plan includes required general education and prerequisite courses that are acceptable to all state funded Bachelor of Engineering programs. Students who follow the degree progression plan will meet the entrance requirements at all of the North Carolina public Bachelor of Science Engineering programs. Associate in Engineering graduates may then apply to any of these programs without taking additional and sometimes duplicative courses. Admission to Engineering programs is highly competitive and admission is not guaranteed.

To be eligible for the transfer of credits under the AE to the Bachelor of Science in Engineering Articulation Agreement, community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. Prerequisites for International Languages may include FRE 110 or SPA 110.

### Universal General Education Transfer Component (UGETC)

Class Lab Clinic Work Credit  
Exp.

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
Subtotal						(6)

#### Humanities/Fine Arts and Communications (6 semester hours required)

Select 1 course from the Humanities category and 1 course from the Fine Arts/Communications category

#### Humanities (3 Semester hours required)

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
REL 110*	World Religions	3	0	0	0	3

\*REL 110 will transfer for equivalency credit to the engineering programs of all five UNC institutions that offer undergraduate engineering programs. It may not transfer with equivalency to other programs.

#### Fine Arts/Communications (3 Semester hours required)

COM 231	Public Speaking	3	0	0	0	3
ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
Subtotal						(6)

**Social/Behavioral Science** (6 semester hours required. ECO 251 is required. Select a second course)

#### Required:

ECO 251	Principles of Microeconomics	3	0	0	0	3
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#### Choose One:

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
Subtotal						(6)

#### Mathematics (12 semester hours required\*)

MAT 271	Calculus I	3	2	0	0	4
MAT 272	Calculus II	3	2	0	0	4
MAT 273	Calculus III	3	2	0	0	4
Subtotal						(12)

\*Calculus I is the lowest level math course that will be accepted by the engineering programs for transfer as a math credit. Students who are not calculus-ready will need to take additional math courses.

#### Natural Sciences (12 semester hours required)

CHM 151	General Chemistry I	3	3	0	0	4
PHY 251	General Physics I	3	2	0	0	4
PHY 252	General Physics II	3	2	0	0	4
Subtotal						(12)

#### Degree Completion Requirements (18 semester hours required)

#### Other Required Courses (3 semester hours required)

ACA 122*	College Transfer Success	0	2	0	0	1
EGR 150	Introduction to Engineering	1	2	0	0	2
Subtotal						(3)

\*Students must complete ACA 122 within the first two semesters of enrollment.

#### General Education and Pre-major Electives Courses (15 semester hours required)

Select 15 SHC of courses from the following courses classified as pre-major, elective, or general education courses within the Comprehensive Articulation Agreement. (Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.)

BIO 111	General Biology I	3	2	0	0	4
CHM 152	General Chemistry II	3	3	0	0	4
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	JAVA Programming	2	3	0	0	3
DFT 170	Engineering Graphics	2	2	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3
EGR 220	Engineering Statics	3	0	0	0	3
HUM 110	Technology and Society	3	0	0	0	3
PED 110	Fit and Well for Life	1	2	0	0	2
Subtotal						(15)

**Total Semester Credit Hours in Program ..... 60**



**Transfer Program****Associate in Fine Arts – Art (A10200AR)**

The Associate in Fine Arts (Art) degree program is designed for students who plan to transfer to four-year institution where they will major in the area of performing or teaching fine arts. The program provides general education courses as well as those courses designed for the area of specialization.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**English Composition (6 semester hours required)**

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(6)

**Literature (3 semester hours required)**

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
ENG 233	Major American Writers	3	0	0	0	3
ENG 241	British Literature I	3	0	0	0	3
ENG 242	British Literature II	3	0	0	0	3
ENG 252	Western World Literature II	3	0	0	0	3
ENG 262	World Literature II	3	0	0	0	3
	Subtotal					(3)

**Humanities/Fine Arts (3 semester hours required)**

ART 111	Art Appreciation	3	0	0	0	3
ASL 111	Elementary ASL I	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
DRA 111	Theatre Appreciation	3	0	0	0	3
DRA 112	Literature of the Theatre	3	0	0	0	3
DRA 211	Theatre History I	3	0	0	0	3
DRA 212	Theatre History II	3	0	0	0	3
FRE 111	Elementary French I	3	0	0	0	3
HUM 110	Technology and Society	3	0	0	0	3
HUM 160	Introduction to Film	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
PHI 210	History of Philosophy	3	0	0	0	3
PHI 230	Introduction to Logic	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
REL 110	World Religions	3	0	0	0	3
REL 211	Intro to Old Testament	3	0	0	0	3
REL 212	Intro to New Testament	3	0	0	0	3
REL 221	Religion in America	3	0	0	0	3
SPA 111	Elementary Spanish I	3	0	0	0	3
	Subtotal					(3)

**Social/Behavioral Science (9 semester hours required. Select three courses from three different discipline areas. HIS 111 or 112 is required.)**

ANT 210	General Anthropology	3	0	0	0	3
ECO 151	Survey of Economics	3	0	0	0	3
ECO 251	Prin. of Microeconomics	3	0	0	0	3
ECO 252	Prin of Microeconomics	3	0	0	0	3
GEO 111	World Regional Geography	3	0	0	0	3
HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
PSY 237	Social Psychology	3	0	0	0	3
PSY 241	Developmental Psych	3	0	0	0	3
PSY 281	Abnormal Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
SOC 213	Sociology of the Family	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3
	Subtotal					(9)

**Mathematics (Select one course from the following)**

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
	Subtotal					(3-4)

**Sciences (4 semester hours required. CHM 131 and CHM 131A must be taken together.)**

BIO 111	General Biology I	3	3	0	0	4
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab	0	3	0	0	1
CHM 151	General Chemistry I	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
	Subtotal					(4)

**Other Required Hours**

ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
	Subtotal					(1)

**Required Art Courses (15 semester hours required)**

ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
ART 121	Two-Dimensional Design	0	6	0	0	3
ART 122	Three-Dimensional Design	0	6	0	0	3
ART 131	Drawing I	0	6	0	0	3
	Subtotal					(15)

**Electives (20 semester hours required)**

ART 132	Drawing II	0	6	0	0	3
ART 135	Figure Drawing I	0	6	0	0	3
ART 171	Computer Art I	0	6	0	0	3
ART 214	Portfolio and Resume	0	2	0	0	1
ART 231	Printmaking I	0	6	0	0	3
ART 232	Printmaking II	0	6	0	0	3
ART 235	Figure Drawing II	0	6	0	0	3
ART 240	Painting I	0	6	0	0	3
ART 241	Painting II	0	6	0	0	3
ART 264	Digital Photography I	1	4	0	0	3
ART 265	Digital Photography II	1	4	0	0	3
ART 271	Computer Art II	0	6	0	0	3
ART 281	Sculpture I	0	6	0	0	3
ART 282	Sculpture II	0	6	0	0	3
ART 283	Ceramics I	0	6	0	0	3
ART 284	Ceramics II	0	6	0	0	3
FRE 181	French Lab 1	0	2	0	0	1
SPA 181	Spanish Lab 1	0	2	0	0	1
	Subtotal					(20)

**Total Semester Credit Hours in Program .....65**



## Transfer Program

### Associate in Fine Arts – Drama (A1020C)

The Associate in Fine Arts (Drama) degree program is designed for students who plan to transfer to a four-year institution where they will major in the area of performing or teaching fine arts. The program provides general education courses as well as those courses designed for the area of specialization.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
Or						
ENG 114	Prof Research and Reporting	3	0	0	0	3
Subtotal						(6)

#### History (3 semester hours required)

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
Subtotal						(3)

#### Literature (3 semester hours required)

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
ENG 233	Major American Writers	3	0	0	0	3
ENG 241	British Literature I	3	0	0	0	3
ENG 242	British Literature II	3	0	0	0	3
ENG 252	Western World Literature II	3	0	0	0	3
ENG 262	World Literature II	3	0	0	0	3
Subtotal						(3)

#### Humanities/Fine Arts (3 semester hours required)

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
ASL 111	Elementary ASL I	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
DRA 111	Theatre Appreciation	3	0	0	0	3
FRE 111	Elementary French I	3	0	0	0	3
HUM 110	Technology and Society	3	0	0	0	3
MUS 110	Music Appreciation	3	0	0	0	3
PHI 210	History of Philosophy	3	0	0	0	3
PHI 230	Introduction to Logic	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
REL 110	World Religions	3	0	0	0	3
REL 211	Intor to Old Testament	3	0	0	0	3
REL 212	Intro to New Testament	3	0	0	0	3
REL 221	Religion in America	3	0	0	0	3
SPA 111	Elementary Spanish I	3	0	0	0	3
Subtotal						(3)

#### Social/Behavioral Science (6 semester hours required. Select two courses from two different discipline areas.)

ANT 210	General Anthropology	3	0	0	0	3
ECO 151	Survey of Economics	3	0	0	0	3
ECO 251	Prin. of Microeconomics	3	0	0	0	3
ECO 252	Prin. of Macroeconomics	3	0	0	0	3
GEO 111	World Regional Geography	3	0	0	0	3
HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3
POL 120	American Government	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
PSY 237	Social Psychology	3	0	0	0	3
PSY 241	Developmental Psych	3	0	0	0	3
PSY 281	Abnormal Psychology	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
SOC 213	Sociology of the Family	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3
Subtotal						(6)

#### Mathematics (Select one course from the following)

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
Subtotal						(3-4)

#### Sciences (4 semester hours required. BIO 140 and 140A must be taken together. CHM 131 and CHM 131A must be taken together.)

BIO 111	General Biology I	3	3	0	0	4
BIO 140	Environmental Biology	3	0	0	0	3
BIO 140A	Environmental Biology Lab*	0	3	0	0	1
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab*	0	3	0	0	1
CHM 151	General Chemistry I	3	3	0	0	4
Subtotal						(4)

#### Other Required Hours

ACA 115	Success and Study Skills	0	2	0	0	1
Or						
ACA 122	College Transfer Success	0	2	0	0	1
Subtotal						(1)

#### Required Drama Courses (20 semester hours required)

DRA 120	Voice for Performance	3	0	0	0	3
DRA 130	Acting I	0	6	0	0	3
DRA 131	Acting II	0	6	0	0	3
DRA 140	Stagecraft I	0	6	0	0	3
DRA 145	Stage Make-up	1	2	0	0	2
DRA 170	Play Production I	0	9	0	0	3
Either						
DRA 211	Theatre History I	3	0	0	0	3
Or						
DRA 212	Theatre History II	3	0	0	0	3
Subtotal						(20)

#### Drama Electives (9 semester hours required)

DRA 112	Literature of the Theatre	3	0	0	0	3
DRA 122	Oral Interpretation	3	0	0	0	3
DRA 128	Children's Theatre	3	0	0	0	3
DRA 141	Stagecraft II	0	6	0	0	3
DRA 171	Play Production II	0	9	0	0	3
DRA 240	Lighting for the Theatre	2	2	0	0	3
DRA 260	Directing	0	6	0	0	3
DRA 270	Play Production III	0	9	0	0	3
DRA 271	Play Production IV	0	9	0	0	3
Subtotal						(9)

Program Electives (6 semester hours required. Take 6 semester credit hours from courses in the BRCC catalog which satisfy the Comprehensive Articulation Agreement as a general education core requirement or as a pre-major and/or elective course requirement.)

Total Semester Credit Hours in Program .....64-65

## Transfer Program

### Associate in Fine Arts – Music (A10200MU)

The Associate in Fine Arts (Music) degree program is designed for students who plan to transfer to a four-year institution where they will major in the area of performing or teaching fine arts. The program provides general education courses as well as those courses designed for the area of specialization.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
Subtotal						(6)

#### Humanities/Fine Arts (6 semester hours required. Select 6 semester credit hours, one course from each of the following groups.)

##### Literature

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3
ENG 233	Major American Writers	3	0	0	0	3
ENG 241	British Literature I	3	0	0	0	3
ENG 242	British Literature II	3	0	0	0	3
ENG 252	Western World Literature II	3	0	0	0	3
ENG 262	World Literature II	3	0	0	0	3

##### Humanities/Fine Arts

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3
ASL 111	Elementary ASL I	3	0	0	0	3
COM 231	Public Speaking	3	0	0	0	3
DRA 111	Theatre Appreciation	3	0	0	0	3
DRA 112	Literature of the Theatre	3	0	0	0	3
DRA 211	Theatre History I	3	0	0	0	3
DRA 212	Theatre History II	3	0	0	0	3
FRE 111	Elementary French I	3	0	0	0	3
FRE 181	French Lab 1*	0	2	0	0	1
HUM 110	Technology and Society	3	0	0	0	3
HUM 160	Introduction to Film	3	0	0	0	3
PHI 210	History of Philosophy	3	0	0	0	3
PHI 230	Introduction to Logic	3	0	0	0	3
PHI 240	Introduction to Ethics	3	0	0	0	3
REL 110	World Religions	3	0	0	0	3
REL 211	Intro to Old Testament	3	0	0	0	3
REL 212	Intro to New Testament	3	0	0	0	3
REL 221	Religion in America	3	0	0	0	3
SPA 111	Elementary Spanish I	3	0	0	0	3
SPA 181	Spanish Lab I*	0	2	0	0	1
Subtotal						(6)

#### Social/Behavioral Sciences (9 semester hours required. Select 9 semester credit hours from three of the following discipline areas. Note: History 111 or 112 is required.)

##### Anthropology

ANT 210	General Anthropology	3	0	0	0	3
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##### Economics

ECO 151	Survey of Economics	3	0	0	0	3
ECO 251	Prin. of Microeconomics	3	0	0	0	3
ECO 252	Prin. of Macroeconomics	3	0	0	0	3

##### Geography

GEO 111	World Regional Geography	3	0	0	0	3
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##### History

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3

##### Political Science

POL 120	American Government	3	0	0	0	3
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##### Psychology

PSY 150	General Psychology	3	0	0	0	3
PSY 237	Social Psychology	3	0	0	0	3
PSY 241	Developmental Psych	3	0	0	0	3
PSY 281	Abnormal Psychology	3	0	0	0	3

##### Sociology

SOC 210	Introduction to Sociology	3	0	0	0	3
SOC 213	Sociology of the Family	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3
Subtotal						(9)

#### Mathematics (Select one course from the following)

MAT 143	Quantitative Literacy	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 171	Pre-Calculus Algebra	3	2	0	0	4
Subtotal						(3-4)

#### Sciences (4 semester hours required)

BIO 111	General Biology I	3	3	0	0	4
CHM 131	Introduction to Chemistry	3	0	0	0	3
CHM 131A	Introduction to Chemistry Lab*	0	3	0	0	1
CHM 151	General Chemistry I	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
Subtotal						(4)

#### Other Required Hours

ACA 115	Success and Study Skills	0	2	0	0	1
Or						
ACA 122	College Transfer Success	0	2	0	0	1
Subtotal						(1)

#### Required Music Courses (30 semester hours required)

MUS 121	Music Theory I	3	2	0	0	4
MUS 122	Music Theory II	3	2	0	0	4
MUS 141	Ensemble I	0	2	0	0	1
MUS 142	Ensemble II	0	2	0	0	1
MUS 151	Class Music I	0	2	0	0	1
MUS 152	Class Music II	0	2	0	0	1
MUS 161	Applied Music I	1	2	0	0	2
MUS 162	Applied Music II	1	2	0	0	2
MUS 221	Music Theory III	3	2	0	0	4
MUS 222	Music Theory IV	3	2	0	0	4
MUS 241	Ensemble III	0	2	0	0	1
MUS 242	Ensemble IV	0	2	0	0	1
MUS 261	Applied Music III	1	2	0	0	2
MUS 262	Applied Music IV	1	2	0	0	2
Subtotal						(30)

#### Electives (5 semester hours required. Select from the above courses and the electives listed below.)

MUS 110	Music Appreciation	3	0	0	0	3
MUS 251	Class Music III	0	2	0	0	1
MUS 252	Class Music IV	0	2	0	0	1
MUS 271	Music History I	3	0	0	0	3
MUS 272	Music History II	3	0	0	0	3
Subtotal						(5)

Total Semester Credit Hours in Program .....64-65

## Transfer Program

### Associate in Science (A10400)

The Associate in Science degree shall be granted for a planned program of study consisting of a minimum of 60 semester hours of credit (SHC) of college transfer courses. Within the degree program, the student will have opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic computer use. The program is divided into a 34 SHC Universal General Education Transfer Component (UGETC) and a 26 SHC Degree Completion Component. Courses selected should be chosen carefully to match the requirements of the university or college where the student plans to transfer. Other than course sequences governed by pre-requisites, the two components may be completed in any order.

Courses are approved for transfer through the Comprehensive Articulation Agreement (CAA). The CAA enables North Carolina community college graduates of two-year associate in science programs who are admitted to constituent institutions of The University of North Carolina to transfer with junior status.

Community college graduates must obtain a grade of "C" or better in each course and an overall GPA of at least 2.0 on a 4.0 scale in order to transfer with a junior status. Courses may also transfer through bilateral agreements between institutions. Course substitutions may invalidate the protections afforded under the Comprehensive Articulation Agreement.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor. Prerequisites for International Languages may include FRE 110 or SPA 110.

#### Universal General Education Transfer Component (UGETC)

Class Lab Clinic Work Credit  
Exp.

#### English Composition (6 semester hours required)

ENG 111	Writing and Inquiry	3	0	0	0	3
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
	Subtotal					(6)

#### Humanities/Fine Arts (6 semester hours required)

(Two courses from two different discipline areas must be selected. A literature course must be taken either in the Universal General Education Transfer Component, the Degree Completion Component, or as an Elective.)

#### Art

ART 111	Art Appreciation	3	0	0	0	3
ART 114	Art History Survey I	3	0	0	0	3
ART 115	Art History Survey II	3	0	0	0	3

#### Communications

COM 231	Public Speaking	3	0	0	0	3
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#### Literature

ENG 231	American Literature I	3	0	0	0	3
ENG 232	American Literature II	3	0	0	0	3

#### Music

MUS 110	Music Appreciation	3	0	0	0	3
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#### Philosophy

PHI 240	Introduction to Ethics	3	0	0	0	3
	Subtotal					(6)

**Social/Behavioral Science** (6 semester hours required. Two courses from two different areas must be selected. HIS 111 or HIS 112 must be taken either in the Universal General Education Transfer Component or the Degree Completion Component.)

#### Economics

ECO 251	Principles of Microeconomics	3	0	0	0	3
ECO 252	Principles of Macroeconomics	3	0	0	0	3

#### History

HIS 111	World Civilizations I	3	0	0	0	3
HIS 112	World Civilizations II	3	0	0	0	3
HIS 131	American History I	3	0	0	0	3
HIS 132	American History II	3	0	0	0	3

#### Political Science

POL 120	American Government	3	0	0	0	3
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#### Psychology

PSY 150	General Psychology	3	0	0	0	3
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#### Sociology

SOC 210	Introduction to Sociology	3	0	0	0	3
	Subtotal					(6)

**Natural Sciences (One course sequence of 8 SHC required from the following.)**

BIO 111	General Biology I	3	3	0	0	4
BIO 112	General Biology II	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
CHM 152	General Chemistry II	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
PHY 152	College Physics II	3	2	0	0	4
	Subtotal					(8)

**Mathematics (Select two courses from the following.)**

MAT 171	Pre-Calculus Algebra	3	2	0	0	4
MAT 172	Pre-Calculus Trigonometry	3	2	0	0	4
MAT 271	Calculus I	3	2	0	0	4
	Subtotal					(8)

#### Degree Completion Component

#### Required Courses

All AS students are required to take the following course. Course should preferably be taken the first semester, but no later than the second semester.

ACA 122	College Transfer Success	0	2	0	0	1
	Subtotal					(1)

**General Education Courses**

Students must select 11 SHC of additional general education courses from the Universal General Education Transfer Component above and/or the following General Education Courses. A minimum of 45 SHC of UGETC and General Education Courses must be taken. These courses should be carefully selected in consultation with advisors at the University where the student plans to transfer. Courses marked with an asterisk (\*) have a corresponding lab which must be taken at the same time.

ANT 210	General Anthropology	3	0	0	0	3
ASL 111	Elementary ASL I	3	0	0	0	3
ASL 112	Elementary ASL II	3	0	0	0	3
ASL 211	Intermediate ASL I	3	0	0	0	3
ASL 212	Intermediate ASL II	3	0	0	0	3
AST 111	Descriptive Astronomy	3	0	0	0	3
AST 111A	Descriptive Astronomy Lab	0	2	0	0	1
BIO 120	Introductory Botany	3	3	0	0	4
BIO 130	Introductory Zoology	3	3	0	0	4
BIO 140	Environmental Biology*	3	0	0	0	3
BIO 140A	Environmental Biology Lab	0	3	0	0	1
CHM 131	Introduction to Chemistry*	3	0	0	0	3
CHM 131A	Intro. to Chemistry Lab	0	3	0	0	1
CHM 132	Organic and Biochemistry	3	3	0	0	4
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Prog & Logic	2	3	0	0	3
COM 120	Intro Interpersonal Com	3	0	0	0	3
COM 140	Intro Intercultural Com	3	0	0	0	3
DRA 111	Theatre Appreciation	3	0	0	0	3
DRA 112	Literature of the Theatre	3	0	0	0	3
DRA 211	Theatre History I	3	0	0	0	3
DRA 212	Theatre History II	3	0	0	0	3
ECO 151	Survey of Economics	3	0	0	0	3
ENG 233	Major American Writers	3	0	0	0	3
ENG 241	British Literature I	3	0	0	0	3
ENG 242	British Literature II	3	0	0	0	3
ENG 252	Western World Literature	3	0	0	0	3
ENG 262	World Literature II	3	0	0	0	3
FRE 111	Elementary French I*	3	0	0	0	3
FRE 112	Elementary French II*	3	0	0	0	3
FRE 211	Intermediate French I*	3	0	0	0	3
FRE 212	Intermediate French II*	3	0	0	0	3
GEO 111	World Regional Geography	3	0	0	0	3
HUM 110	Technology and Society	3	0	0	0	3
HUM 160	Introduction to Film	3	0	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
MAT 272	Calculus II	3	2	0	0	4
MAT 273	Calculus III	3	2	0	0	4
PHI 210	History of Philosophy	3	0	0	0	3
PHI 230	Introduction to Logic	3	0	0	0	3
PHY 251	General Physics I	3	3	0	0	4
PHY 252	General Physics II	3	3	0	0	4
PSY 237	Social Psychology	3	0	0	0	3
PSY 241	Developmental Psychology	3	0	0	0	3
PSY 281	Abnormal Psychology	3	0	0	0	3
REL 110	World Religions	3	0	0	0	3
REL 211	Intro to Old Testament	3	0	0	0	3
REL 212	Intro to New Testament	3	0	0	0	3
REL 221	Religion in America	3	0	0	0	3
SOC 213	Sociology of the Family	3	0	0	0	3
SOC 220	Social Problems	3	0	0	0	3
SPA 111	Elementary Spanish I*	3	0	0	0	3
SPA 112	Elementary Spanish II*	3	0	0	0	3
SPA 211	Intermediate Spanish I*	3	0	0	0	3
SPA 212	Intermediate Spanish II*	3	0	0	0	3
	Subtotal					(11)

**Electives**

Select 14 SHC from the above courses and/or the Electives listed below. In choosing elective courses: 2 semester hours are recommended for Health and PE. CIS 110, listed under the General Education Courses above, is also recommended. Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution

ACC 120	Principles of Financial Acc	3	2	0	0	4
ACC 121	Principles of Managerial Acc	3	2	0	0	4
ART 121	Two-Dimensional Design	0	6	0	0	3
ART 122	Three-Dimensional Design	0	6	0	0	3
ART 131	Drawing I	0	6	0	0	3
ART 132	Drawing II	0	6	0	0	3
ART 171	Computer Art I	0	6	0	0	3
ART 231	Printmaking I	0	6	0	0	3
ART 232	Printmaking II	0	6	0	0	3
ART 240	Painting I	0	6	0	0	3
ART 241	Painting II	0	6	0	0	3
ART 264	Digital Photography I	1	4	0	0	3
ART 265	Digital Photography II	1	4	0	0	3
ART 266	Videography I	0	6	0	0	3
ART 267	Videography II	0	6	0	0	3
ART 271	Computer Art II	0	6	0	0	3
ART 281	Sculpture I	0	6	0	0	3
ART 282	Sculpture II	0	6	0	0	3
ART 283	Ceramics I	0	6	0	0	3
ART 284	Ceramics II	0	6	0	0	3
BIO 145	Ecology	3	3	0	0	4
BIO 163	Basic Anat & Physiology	4	2	0	0	5
BIO 165	Anatomy and Physiology I	3	3	0	0	4
BIO 166	Anatomy and Physiology II	3	3	0	0	4
BIO 175	General Microbiology	2	2	0	0	3
BIO 242	Natural Resource Conservation	3	0	0	0	3
BUS 110	Introduction to Business	3	0	0	0	3
BUS 115	Business Law I	3	0	0	0	3
BUS 137	Principles of Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
CHM 251	Organic Chemistry I	3	3	0	0	4
CHM 252	Organic Chemistry II	3	3	0	0	4
CJC 111	Intro to Criminal Justice	3	0	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	0	3
CJC 141	Corrections	3	0	0	0	3
COM 160	Small Group Communication	3	0	0	0	3
CSC 134	C++ Programming	2	3	0	0	3
CSC 151	JAVA Programming	2	3	0	0	3
DFT 170	Engineering Graphics	2	2	0	0	3
DRA 120	Voice for Performance	3	0	0	0	3
DRA 124	Readers Theatre	3	0	0	0	3
DRA 130	Acting I	0	6	0	0	3
DRA 131	Acting II	0	6	0	0	3
DRA 140	Stagecraft I	0	6	0	0	3
DRA 141	Stagecraft II	0	6	0	0	3
DRA 145	Stage Make-up	1	2	0	0	2
DRA 170	Play Production I	0	9	0	0	3
DRA 171	Play Production II	0	9	0	0	3
DRA 270	Play Production III	0	9	0	0	3
DRA 271	Play Production IV	0	9	0	0	3
EGR 150	Intro to Engineering	1	2	0	0	2
ENG 125	Creative Writing I	3	0	0	0	3
ENG 272	Southern Literature	3	0	0	0	3
FRE 141	Culture and Civilization	3	0	0	0	3
FRE 151	Francophone Literature	3	0	0	0	3
FRE 181	French Lab 1*	0	2	0	0	1
FRE 182	French Lab 2*	0	2	0	0	1
FRE 281	French Lab 3*	0	2	0	0	1
FRE 282	French Lab 4*	0	2	0	0	1
HIS 231	Recent American History	3	0	0	0	3
HIS 236	North Carolina History	3	0	0	0	3
HUM 123	Appalachian Culture	3	0	0	0	3
MUS 121	Music Theory I	3	2	0	0	4
MUS 122	Music Theory II	3	2	0	0	4
MUS 151	Class Music I	0	2	0	0	1

MUS 152	Class Music II	0	2	0	0	1
MUS 251	Class Music III	0	2	0	0	1
MUS 252	Class Music IV	0	2	0	0	1
PED 110	Fit and Well for Life	1	2	0	0	2
PED 111	Physical Fitness I	0	3	0	0	1
PED 117	Weight Training I	0	3	0	0	1
PED 118	Weight Training II	0	3	0	0	1
PED 119	Circuit Training	0	3	0	0	1
PED 120	Walking for Fitness	0	3	0	0	1
PED 121	Walk, Jog, Run	0	3	0	0	1
PED 122	Yoga I	0	2	0	0	1
PED 123	Yoga II	0	2	0	0	1
PED 137	Badminton	0	2	0	0	1
PED 139	Bowling-Beginning	0	2	0	0	1
PED 143	Volleyball-Beginning	0	2	0	0	1
PED 186	Dancing for Fitness	0	2	0	0	1
PED 217	Pilates I	0	2	0	0	1
PED 218	Pilates II	0	2	0	0	1
PHS 130	Earth Science	3	2	0	0	4
POL 130	State and Local Government	3	0	0	0	3
PSY 231	Forensic Psychology	3	0	0	0	3
PSY 271	Sports Psychology	3	0	0	0	3
SPA 141	Culture and Civilization	3	0	0	0	3
SPA 161	Cultural Immersion	2	3	0	0	3
SPA 181	Spanish Lab 1*	0	2	0	0	1
SPA 182	Spanish Lab 2*	0	2	0	0	1
SPA 221	Spanish Conversation	3	0	0	0	3
SPA 231	Reading and Composition	3	0	0	0	3
SPA 281	Spanish Lab 3*	0	2	0	0	1
SPA 282	Spanish Lab 4*	0	2	0	0	1
	Subtotal					(14)

\*Denotes a corequisite, course cannot be taken by itself.

**Total Semester Credit Hours in Program .....60**



## Articulated Transfer Program – Accounting (A25100WC) Pathway to Western Carolina University’s Accounting Program

This program is an articulated program with Western Carolina University. Students who plan to attend the accounting program at Western Carolina University should be enrolled in the Accounting Associates Degree program at Blue Ridge Community College (see page 45). Students must complete each course within the Accounting Degree with a grade of “C” or better for the course to transfer.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
ACC 120	Prin of Financial Accounting	3	2	0	0	4
BUS 110	Introduction to Business	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
MAT 152	Statistical Methods I	3	2	0	0	4
	Subtotal					(15)

### Spring Semester

ACC 122	Prin of Financial Acct II	3	0	0	0	3
ACC 140	Payroll Accounting	1	2	0	0	2
	Either					
BUS 280	REAL Small Business	4	0	0	0	4
	Or					
	Major Course Elective***					3
ECO 251	Principles of Microeconomics	3	0	0	0	3
ENG 111	Writing & Inquiry	3	0	0	0	3
	Subtotal					(14-15)

### Summer Term

CTS 130	Spreadsheet	2	2	0	0	3
ENG 114	Prof. Research and Reporting	3	0	0	0	3
	Humanities Elective**					3
	Subtotal					(9)

### Fall Semester

ACC 121	Prin of Managerial Accounting	3	2	0	0	4
ACC 129	Individual Income Taxes	2	2	0	0	3
ACC 220	Intermediate Accounting I	3	2	0	0	4
BUS 115	Business Law I	3	0	0	0	3
MKT 120	Principles of Marketing	3	0	0	0	3
	Subtotal					(17)

### Spring Semester

ACC 150	Accounting Software Applications1	2	0	0	0	2
ACC 227	Practices in Accounting	3	0	0	0	3
BUS 225	Business Finance	2	2	0	0	3
WBL 111	Work-Based Learning I	0	0	0	10	1
ECO 252	Principles of Macroeconomics	3	0	0	0	3
	Subtotal					(12)

\*\*Humanities Elective must satisfy WCU's P3, P4, P5, or P6 requirement. These can be found at [wcu.edu/24847.asp](http://wcu.edu/24847.asp)

\*\*\*Major Course Electives are to be selected from the following:

BAF 110	Principles of Banking	3	0	0	0	3
BUS 116	Business Law II	3	0	0	0	3
BUS 137	Principles of Management	3	0	0	0	3
BUS 153	Human Resource Management	3	0	0	0	3
BUS 228	Business Statistics	2	2	0	0	3
BUS 240	Business Ethics	3	0	0	0	3
DBA 110	Database Concepts	2	3	0	0	3
OST 136	Word Processing	2	2	0	0	3
RLS 112	Broker Prelicensing	5	0	0	0	5

**Total Semester Credit Hours in Program .....67- 68**

**Articulated Transfer Program –  
Criminal Justice (A55180MH)  
Pathway to Mars Hill Bachelor of Science  
Criminal Justice Program**

This articulation agreement between Blue Ridge Community College (BRCC) Criminal Justice Technology Program and Criminal Justice and Mars Hill University (MHU) provides for transfer from the Criminal Justice program at BRCC to the B.S. in Criminal Justice at MHU. As per the guidelines established by the Independent Comprehensive Articulation Agreement (ICAA) between signatory institutions of the North Carolina Independent Colleges and Universities (NCICU), if students at BRCC complete the established 44-hour general education core or graduate with an AA or AS degree, and have a GPA of at least 2.00 on a 4.00 scale, they will transfer into MHU having met all general education requirements. Students not completing the general education core at BRCC must complete those requirements at MHU as outlined in the 2013 fall catalog. If 28 or more hours are transferred to MHU the first semester, First Year Seminar I is not required at MHU. Students must take a minimum of 60 hours at a senior college and a minimum of 32 at Mars Hill.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

**Fall Semester-YEAR 1**

ACA	115	Success & Study Skills	0	2	0	0	1
CIS	110	Introduction to Computers	2	2	0	0	3
CJC	111	Introduction to Criminal Justice	3	0	0	0	3
CJC	231	Constitutional Law	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
		Subtotal					(13)

**Spring Semester-YEAR 1**

CJC	112	Criminology	3	0	0	0	3
CJC	131	Criminal Law	3	0	0	0	3
ENG	112	Writing/Research in the Discipl	3	0	0	0	3
		Or					
ENG	114	Prof Research & Reporting					
MAT	143	Quantitative Literacy	3	0	0	0	3
		Subtotal					(12)

**Summer Term-YEAR 1**

PSY	150	General Psychology	3	0	0	0	3
		Humanities Elective (see below*)					3
		Social Behavior Science (see below*)					3
		Subtotal					(9)

**Fall Semester-YEAR 2**

CJC	113	Juvenile Justice	3	0	0	0	3
CJC	132	Court Procedure & Evidence	3	0	0	0	3
CJC	221	Investigative Principles	3	2	0	0	4
GEO	111	World Regional Geography	3	0	0	0	3
		Humanities Elective (see below*)	3	0	0	0	3
		Subtotal					(16)

**Spring Semester-YEAR 2**

CJC	121	Law Enforcement Operations	3	0	0	0	3
CJC	141	Corrections	3	0	0	0	3
CJC	212	Ethics & Comm. Relations	3	0	0	0	3
		Science (see below*)	3	0	0	0	3
		Science Lab (see below*)	0	3	0	0	1
		Subtotal					(15 or 16)

**Total Semester Credit Hours in Program .....65-66**

\*Humanities Electives: choose from ART 111, ASL-111, DRA 111, SPA 111/SPA 181

\*Social Behavior Science Electives: choose from HIS 111, 112, 131, 132

\*Science: choose from BIO 111 or BIO 140/140a

## Articulated Transfer Program – Dental Hygienist (A10300D) Articulated Program with Greenville Technical College

In this program, students will complete the first year of related courses at Blue Ridge Community College, and the second year, a professional core of courses at Greenville Technical College in Greenville, South Carolina. The student will make separate application to Greenville Technical College during their first year to continue the program.

Limited spaces are available at Greenville Technical College in this program. To qualify for transfer, the student must earn a 2.8 cumulative technical grade point average and work closely with his/her faculty advisor. Successful completion of courses at Blue Ridge Community College does not guarantee a specific entry date at Greenville Technical College. Students should consult Greenville Technical College for the latest admission requirements.

Students must have a unit of high school biology and chemistry.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	
				Exp.		
<b>Required Courses</b>						
ACA	115	Success and Study Skills	0	2	0	1
BIO	165	Anatomy and Physiology I	3	3	0	4
BIO	166	Anatomy and Physiology II	3	3	0	4
CHM	131	Introduction to Chemistry	3	0	0	3
		And				
CHM	131A	Introduction to Chemistry Lab*	0	3	0	1
		Or				
CHM	151	General Chemistry I	3	3	0	4
CHM	132	Organic and Biochemistry	3	3	0	4
COM	231	Public Speaking	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
MAT	152	Statistical Methods I	3	2	0	4
PSY	150	General Psychology	3	0	0	3
SOC	210	Intro to Sociology	3	0	0	3
		Humanities Elective**				3

\*Denotes a corequisite, course cannot be taken by itself.

(Head and Neck Anatomy course should be taken at Greenville Technical College)

\*\*Any college transferable humanities course will satisfy this requirement. Ethics, Religion, or foreign language is suggested.

**Total Semester Credit Hours to be taken at BRCC..... 36**

## Articulated Transfer Program – School-Age Education (Arts Track)

### Articulation agreement with Mars Hill University Teacher Education Programs

This program is an articulated program with Mars Hill University. Students must complete each course within the program with a grade of “C” or better for the course to transfer. Students who graduate from the program must complete an electronic portfolio in TaskStream [www.taskstream.com](http://www.taskstream.com) to show competence in the National Association for the Education of Young Children (NAEYC) standards. Students transferring from BRCC must notify Dr. Susan Stigall at [sstigall@mhu.edu](mailto:sstigall@mhu.edu) for TaskStream training, in order to complete their Teacher Education Portfolio. Students must earn acceptable scores on PRAXIS I before enrolling in Mars Hill Teacher Education Programs.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
	Or					
ACA 122	College Transfer Success	0	2	0	0	1
EDU 144	Child Development I	3	0	0	0	3
EDU 163	Classroom Mgt and Instruct	3	0	0	0	3
EDU 173	Becoming a Prof'l in ECE	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Foreign Language (either ASL, FRE, SPA)					3
	Subtotal					(16)

#### Spring Semester

ENG 112	Writing/Research in the Discipl	3	0	0	0	3
EDU 131	Child, Family and Community	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
PSY 150	General Psychology	3	0	0	0	3
	Foreign Language (either ASL, FRE, SPA)					3
	Subtotal					(18)

#### Summer Term

MAT 143	Quantitative Literacy	2	2	0	0	3
	Select one from:					
	ART 111, PHI 240, MUS 110					3
	Subtotal					(6)

#### Fall Semester

EDU 216	Foundations of Education	4	0	0	0	4
EDU 221	Children with Exceptionalities	3	0	0	0	3
CIS 110	Introduction to Computers	2	2	0	0	3
	Science Elective**					4
	Select one from:					
	HIS 111, HIS 112					3
	Subtotal					(17)

#### Spring Semester

EDU 271	Educational Technology	3	0	0	0	3
EDU 285	Internship Exp-School-Age	1	9	0	0	4
EDU 289	Adv Issues/School Age	2	0	0	0	2
ENG 241	British Literature I	3	0	0	0	3
	Social/Behavioral Science Elective**					3
	Subtotal					(15)

#### \*\* Choose from the courses below

#### Social/Behavior Sciences Note: HIS 111 or HIS 112 is required.

GEO 111	World Regional Geography	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 111	World Civilizations I	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 112	World Civilizations II	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 131	American History I	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 132	American History II	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
POL 120	American Government	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
SOC 210	Introduction to Sociology	3	0	0	0	3
	(Middle Grades Social Studies concentration)					

#### Natural/ Physical Science

Select one course, including accompanying laboratory work, from the biological or physical science disciplines.

BIO 111	General Biology I	3	3	0	0	4
BIO 112	General Biology II	3	3	0	0	4
BIO 140	Environmental Biology	3	0	0	0	4
	(Middle Grades Science concentration)					
BIO 140A	Environmental Biology Lab*	0	3	0	0	4
	(Middle Grades Science concentration)					
CHM 151	General Chemistry I	3	3	0	0	4
	(Middle Grades Science concentration)					
CHM 152	General Chemistry II	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
	(Middle Grades Science concentration)					
PHY 152	College Physics II	3	2	0	0	4

#### Bridge Course for Elementary Education, Special Education, and Integrated Education Concentration

EDU 151	Creative Activities	3	0	0	0	3
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#### Bridge Courses for Middle Grades Concentration

HIS 236	North Carolina History	3	0	0	0	3
MAT 152	Statistical Methods	3	2	0	0	4
	(Math concentration)					
MAT 271	Calculus I	3	2	0	0	4
POL 130	State and Local Government	3	0	0	0	3
	(Social Studies concentration)					

#### Bridge Courses for ESL Concentration

One more semester of the same Foreign Language-Choose from:

ASL 111/181
ASL 112/182
ASL 211/281
FRE 111/181
FRE 112/182
SPA 111/181
SPA 112/182
SPA 211
SPA 212

## Articulated Transfer Program – School-Age Education (Science track)

Articulation agreement with Mars Hill College  
Teacher Education Programs:

This program is an articulated program with Mars Hill University. Students must complete each course within the program with a grade of “C” or better for the course to transfer. Students who graduate from the program must complete an electronic portfolio in TaskStream [www.taskstream.com](http://www.taskstream.com) to show competence in the National Association for the Education of Young Children (NAEYC) standards. Students transferring from BRCC must notify Dr. Susan Stigall at [ssigall@mhu.edu](mailto:ssigall@mhu.edu) for TaskStream training, in order to complete their Teacher Education Portfolio. Students must earn acceptable scores on PRAXIS I before enrolling in Mars Hill Teacher Education Programs.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Learning Center Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

	Class	Lab	Clinic	Work	Credit	Exp.
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
Or						
ACA 122	College Transfer Success	0	2	0	0	1
EDU 144	Child Development I	3	0	0	0	3
EDU 173	Becoming a Prof'l in ECE	3	0	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Foreign Language (either ASL, FRE, SPA)					3
	Math Elective**					3
	Subtotal					(17)
<b>Spring Semester</b>						
ENG 112	Writing/Research in the Discipl	3	0	0	0	3
EDU 131	Child, Family and Community	3	0	0	0	3
EDU 145	Child Development II	3	0	0	0	3
EDU 271	Educational Technology	3	0	0	0	3
	Foreign Language (either ASL, FRE, SPA)					3
	Subtotal					(15)
<b>Summer Term</b>						
	Math Elective**					3-4
	Select one from:					
	ART 111, DRA 111, HUM 211, MUS 110					3
	Social/Behavioral Science Elective**					3
	Subtotal					(9-10)
<b>Fall Semester</b>						
EDU 163	Classroom Mgt and Instruct	3	0	0	0	3
EDU 216	Foundations of Education	4	0	0	0	4
EDU 221	Child with Exceptionalities	3	0	0	0	3
	Natural/Physical Science Elective**					4
	Subtotal					(14)
<b>Spring Semester</b>						
EDU 285	Internship Exp-School-Age	1	9	0	0	4
EDU 289	Adv Issues/School Age	2	0	0	0	2
	Social/Behavioral Science Elective**					3
	Science Elective**					4
	Subtotal					(13)

\*\* Choose from the courses below

### Social/Behavior Sciences Note: HIS 111 or HIS 112 is required

GEO 111	World Regional Geography	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 111	World Civilizations I	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 112	World Civilizations II	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 131	American History I	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
HIS 132	American History II	3	0	0	0	3
	(Middle Grades Social Studies concentration)					
POL 120	American Government	3	0	0	0	3
SOC 210	Introduction to Sociology	3	0	0	0	3
	(Middle Grades Social Studies concentration)					

### Math

MAT 143	Quantitative Literacy	2	2	0	0	3
	(Middle Grades Math concentration)					
MAT 152	Statistical Methods I	3	2	0	0	4
	(Middle Grades Math concentration)					
MAT 171	Precalculus Algebra	3	2	0	0	4
MAT 172	Precalculus Trigonometry	3	2	0	0	4
MAT 271	Calculus I	3	2	0	0	4
	(Middle Grades Math concentration)					

### Natural/ Physical Science

Select a two-course sequence, including accompanying Laboratory work, from the biological or physical science disciplines.

BIO 111	General Biology I	3	3	0	0	4
BIO 112	General Biology II	3	3	0	0	4
BIO 140	Environmental Biology	3	0	0	0	4
BIO 140A	Environmental Biology Lab*	0	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
CHM 152	General Chemistry II	3	3	0	0	4
PHY 151	College Physics I	3	2	0	0	4
PHY 152	College Physics II	3	2	0	0	4

### Bridge Course for Elementary Education, Special Education, and Integrated Education Concentration

EDU 151	Creative Activities	3	0	0	0	3
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### Bridge Courses for Middle Grades Concentration

HIS 236	North Carolina History	3	0	0	0	3
POL 130	State and Local Government	3	0	0	0	
	3 (Social Studies concentration)					
PSY 150	General Psychology	3	0	0	0	3

### Bridge Courses for ESL Concentration

One more semester of the same Foreign Language-Choose from:

ASL 111/181
ASL 112/182
ASL 211/281
FRE 111/181
FRE 112/182
SPA 111/181
SPA 112/182
SPA 211
SPA 212



## Articulated Transfer Program – Fermentation Science (A10400AFS)

### Associate in Science Pathway to Appalachian State University Fermentation Science

Appalachian State University (ASU) and Blue Ridge Community College (BRCC) have agreed to partner in an effort to outline a specific pathway for students to obtain an Associate in Science Degree that also meets the first two years of coursework requirements for the BS degree in Fermentation Science from Appalachian State University. Students must complete the Associate in Science degree from BRCC, apply to graduate, and have the Associate in Science degree posted on their official transcript. ASU will guarantee space availability for two BRCC students until March 1st prior to Fall Semester enrollment. After that time, spaces will be released to the general student population. The Dean of Arts and Sciences at BRCC will make student recommendations to the Director of the Office of Transfer Articulation and the Program Coordinator of Fermentation Science. BRCC students must apply for admission and be admitted to Appalachian State University to articulate appropriate course credit. Students are recommended to have a complete application for admission to the university by December 1st prior to the start of the intended fall term. Upon acceptance to ASU, the recommended BRCC students can complete a major declaration for the Fermentation Sciences program. The ASU Fermentation Science course sequencing begins Fall Semester of each academic year.

The courses listed are required in order to be considered for one of the two BRCC positions. The courses listed will satisfy Blue Ridge Community College requirements for the Associate in Science degree. Other courses may be used to complete the Associate in Science degree but may not meet the requirements for application to the Fermentation Science program at ASU.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

For more detailed information about the Fermentation Science pathway, contact the Dean for Arts and Sciences, the College Transfer Coordinator in the Student Services Department, or on the Web at [northcarolina.edu/aa/articulation/index.htm](http://northcarolina.edu/aa/articulation/index.htm).

Class Lab Clinic Work Credit  
Exp.

#### Required Courses

Course	Class	Lab	Clinic	Work	Credit
ACA 122	College Transfer Success	0	2	0	0 1
ACC 120	Prin. of Financial Acct.	3	2	0	0 4
BIO 111	General Biology I	3	3	0	0 4
BIO 112	General Biology II	3	3	0	0 4
BUS 110	Introduction to Business	3	0	0	0 3
COM 231	Public Speaking	3	0	0	0 3
CHM 151	General Chemistry I	3	3	0	0 4
CHM 152	General Chemistry II	3	3	0	0 4
ECO 251	Principles of Microeconomics	3	0	0	0 3
ENG 111	Writing and Inquiry	3	0	0	0 3
ENG 112	Writing/Research in the Discipl	3	0	0	0 3
HIS 112	World Civilizations II	3	0	0	0 3
MAT 152	Statistical Methods I	3	2	0	0 4
MAT 171	Pre-Calculus Algebra	3	2	0	0 4
MAT 172	Pre-Calculus Trigonometry	3	2	0	0 4
MAT 271	Calculus I	3	2	0	0 4
	Literature*				3
	Additional Electives				3

\* Literature options – ENG 231, 232, 233, 241, 242, 252, 262

**Total Semester Credit Hours in Program ..... 61**

### Articulated Transfer Program – Nursing (Regionally Increasing Baccalaureate Nurses (RIBN) Program)

Cooperative Program with  
Western Carolina University  
Associate in Applied Science Degree (BRCC) –  
Bachelor of Science in Nursing Degree (WCU)

The RIBN curriculum comprises four years in nursing studies. Students graduate with both an associate in Applied Science Degree in Nursing from Blue Ridge Community College and a bachelor's degree in Nursing from Western Carolina University. Students enroll in both WCU and BRCC for the first three years of the program, and at WCU for the final year. Students are eligible to apply to take the National Council Examination (NCLEX-RN) after three years at BRCC.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Special admission procedures for the RIBN program are outlined on page 10. Contact Student Services on either campus for additional information.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Fall Semester – Year 1

ACA 115	Success and Study Skills	0	2	0	0	1
BIO 165	Anatomy and Physiology I	3	3	0	0	4
CHM 151	General Chemistry I	3	3	0	0	4
MAT 171	Precalculus Algebra	3	2	0	0	4
	Liberal Arts (WCU)					3
	Subtotal					(16)

#### Spring Semester – Year 1

BIO 166	Anatomy and Physiology II	3	3	0	0	4
CHM 132	Organic and Biochemistry	3	3	0	0	4
CIS 110	Introduction to Computers	2	2	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
	Liberal Arts (WCU)					3
	Subtotal					(17)

#### Fall Semester – Year 2

NUR 111	Intro to Health Concepts	4	6	6	0	8
PED 110	Fit and Well for Life	1	2	0	0	2
PSY 241	Developmental Psychology	3	0	0	0	3
	Liberal Arts (WCU)					3
	Subtotal					(16)

#### Spring Semester – Year 2

BIO 175	General Microbiology	2	2	0	0	3
NUR 112	Health Illness Concepts	3	0	6	0	5
NUR 211	Health Care Concepts	3	0	6	0	5
	Liberal Arts (WCU)					3
	Subtotal					(16)

#### Summer Term – Year 2

NSG 346	(WCU)					3
NUR 114	Holistic Health Concepts	3	0	6	0	5
	Subtotal					(8)

#### Fall Semester – Year 3

ENG 114	Profes Research and Reporting	3	0	0	0	3
NUR 113	Family Health Concepts	3	0	6	0	5
NUR 212	Health System Concepts	3	0	6	0	5
	Liberal Arts (WCU)					3
	Subtotal					(16)

#### Spring Semester – Year 3

COM 231	Public Speaking	3	0	0	0	3
NUR 213	Complex Health Concepts	4	3	15	0	10
	Liberal Arts (WCU)					3
	Subtotal					(16)

Remainder of credit hours will be completed at Western Carolina University (Online and at Biltmore Park campus)

**Total Semester Credit Hours in Program ..... 129**

## Articulated Transfer Program – Occupational Therapy Assistant (A103000)

### Articulated Program with Greenville Technical College

In this program, students will complete the first year of related courses at Blue Ridge Community College, and the second year, a professional core of courses at Greenville Technical College in Greenville, South Carolina. The student will make separate application to Greenville Technical College during their first year to continue the program.

Limited spaces are available at Greenville Technical College in these programs. To qualify for transfer, the student must earn a 2.5 cumulative technical grade point average and work closely with his/her faculty advisor. Successful completion of courses at Blue Ridge Community College does not guarantee a specific entry date at Greenville Technical College. Students should consult Greenville Technical College for the latest admission requirements.

Students must have a unit of high school biology and chemistry.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

#### Required Courses

ACA	115	Success and Study Skills	0	2	0	0	1
BIO	165	Anatomy and Physiology I	3	3	0	0	4
BIO	166	Anatomy and Physiology II	3	3	0	0	4
CIS	110	Introduction to Computers	2	2	0	0	3
COM	231	Public Speaking	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
MAT	152	Statistical Methods I	3	2	0	0	4
OST	141	Med Terms I-Med Office	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
		Or					
PSY	281	Abnormal Psychology	3	0	0	0	3
		Humanities Elective**					3

\*\*Any college transferable humanities course will satisfy this requirement.

OTA 200 must be completed at Greenville Tech or online before beginning the OTA program.

**Total Semester Credit Hours to be taken at BRCC.....34**

## Articulated Transfer Program – Pharmacy (A10400WP)

### Associate in Science Pathway to Wingate University School of Pharmacy

Class Lab Clinic Work Credit  
Exp.

The Wingate University School of Pharmacy and Blue Ridge Community College have agreed to partner in an effort to outline a specific pathway for students to obtain an Associate in Science Degree that also meets the prerequisite coursework requirements for application to the Wingate University School of Pharmacy. Completion of the Associate in Science degree or the listed courses does not guarantee admission to Wingate University School of Pharmacy. Acceptance into Wingate University School of Pharmacy is competitive based grades from individual courses listed below, the pharmacy school assessment test (PCAT) scores, and a personal interview.

The Wingate School of Pharmacy recognizes online courses as long as labs are completed in a seated classroom section. COM 231 may not be taken online.

The courses listed are required in order to apply for admission to Wingate University School of Pharmacy. The courses listed will satisfy Blue Ridge Community College requirements for the Associate in Science degree. Other courses may be used to complete the Associate in Science degree but may not meet the requirements for application to Wingate University School of Pharmacy. All pharmacy prerequisites must be completed by the end of Spring Semester of the year in which pharmacy school enrollment is requested.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

For more detailed information about the Pharmacy pathway, contact the Dean for Arts and Sciences, the College Transfer Coordinator in the Student Services Department, or on the Web at [northcarolina.edu/aa/articulation/index.htm](http://northcarolina.edu/aa/articulation/index.htm)

#### Required Courses

ACA	122	College Transfer success	1	0	0	0	1
BIO	111	General Biology I	3	3	0	0	4
BIO	163	Basic Anat and Phys	4	2	0	0	5
		Or					
BIO	165	Anatomy and Physiology I	3	3	0	0	4
		And					
BIO	166	Anatomy and Physiology II	3	3	0	0	4
BIO	175	General Microbiology	2	2	0	0	3
CHM	151	General Chemistry I	3	3	0	0	4
CHM	152	General Chemistry II	3	3	0	0	4
CHM	251	Organic Chemistry I	3	3	0	0	4
CHM	252	Organic Chemistry II	3	3	0	0	4
COM	231	Public Speaking	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
ENG	112	Writing/Research in the Discipl	3	0	0	0	3
HIS	112	World Civilizations II	3	0	0	0	3
MAT	152	Statistical Methods I	3	2	0	0	4
MAT	171	Pre-Calculus Algebra	3	2	0	0	4
MAT	172	Pre-Calculus Trigonometry	3	2	0	0	4
MAT	271	Calculus I	3	2	0	0	4
PHY	151	College Physics I	3	2	0	0	4
		Or					
PHY	251	General Physics I	3	3	0	0	4
		Literature*					3
		Social/Behavioral Sciences*					3

\* Literature options – ENG 231, 232, 233, 241, 242, 252, 262

\* Social/Behavioral Sciences options –SOC 210, ECO 251, ECO 252

**Total Semester Credit Hours to be taken at BRCC.....67-70**

## Articulated Transfer Program – Physical Therapist Assistant (A10300PT) Articulated Program with Greenville Technical College

In this program, students will complete the first year of related courses at Blue Ridge Community College, and the second year, a professional core of courses at Greenville Technical College in Greenville, South Carolina. The student will make separate application to Greenville Technical College during their first year to continue the program.

Limited spaces are available at Greenville Technical College in this program. To qualify for transfer, the student must earn a 2.5 cumulative technical grade point average and work closely with his/her faculty advisor. Successful completion of courses at Blue Ridge Community College does not guarantee a specific entry date at Greenville Technical College. Students should consult Greenville Technical College for the latest admission requirements.

Students must have a unit of high school biology and chemistry.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit  
Exp.

### Required Courses

ACA	115	Success and Study Skills	0	2	0	0	1
BIO	165	Anatomy and Physiology I	3	3	0	0	4
BIO	166	Anatomy and Physiology II	3	3	0	0	4
COM	231	Public Speaking	3	0	0	0	3
ENG	111	Writing and Inquiry	3	0	0	0	3
MAT	152	Statistical Methods I	3	2	0	0	4
OST	141	Med Terms I-Med Office	3	0	0	0	3
PSY	150	General Psychology	3	0	0	0	3
PSY	241	Developmental Psychology	3	0	0	0	3
		Humanities Elective**					3

\*\*Any college transferable Humanities course will satisfy this requirement. Ethics, Philosophy, Art, Religion, or foreign language is suggested.

Note: Before application to program is considered BIO 150 must be completed through Greenville Technical College.

**Total Semester Credit Hours to be taken at BRCC.....31**



## Web Technologies (A25290) Associate in Applied Science Degree

The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers and distributed computing to disseminate and collect information via the Web.

Course work in this program covers the terminology and use of computers, network devices, networks, servers, databases, applications, programming languages, as well as Web applications, site development and design. Studies will provide opportunity for students to learn related industry standards.

Graduates should qualify for career opportunities as designers, administrators, or developers in the areas of Web applications, websites, Web services, and related areas of distributed computing.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

### Fall Semester

		Class	Lab	Clinic	Work	Credit
					Exp.	
ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming and Logic	2	3	0	0	3
WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3
	Social/Behavioral Science Elective**					3
	Subtotal					(16)

### Spring Semester

BUS 280	REAL Small Business	4	0	0	0	4
DBA 110	Database Concepts	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
WEB 111	Introduction to Web Graphics	2	2	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
	Subtotal					(16)

### Summer Term

ENG 114	Professional Research/Report	3	0	0	0	3
MAT 143	Quantitative Literacy	2	2	0	0	3
	Humanities Elective**					3
	Subtotal					(9)

### Fall Semester

SEC 110	Security Concepts	2	2	0	0	3
WEB 180	Active Server Pages	2	2	0	0	3
WEB 182	PHP Programming	2	2	0	0	3
WEB 210	Web Design	2	2	0	0	3
WEB 215	Adv Markup and Scripting	2	2	0	0	3
	Subtotal					(15)

### Spring Semester

WBL 111	Work-Based Learning I	0	0	0	10	1
WEB 214	Social Media	2	2	0	0	3
WEB 250	Database Driven websites	2	2	0	0	3
WEB 287	Web E-Portfolio	1	2	0	0	2
	Subtotal					(9)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

**Total Semester Credit Hours in Program .....65**

## Web Technologies (D25290) Diploma

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

### Fall Semester

ACA 115	Success and Study Skills	0	2	0	0	1
CIS 110	Introduction to Computers	2	2	0	0	3
CIS 115	Intro to Programming/Logic	2	3	0	0	3
ENG 111	Writing and Inquiry	3	0	0	0	3
WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3
	Subtotal					(16)

### Spring Semester

DBA 110	Database Concepts	2	3	0	0	3
WEB 111	Introduction Web Graphics	2	2	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 182	PHP Programming	2	2	0	0	3
WEB 215	Adv Markup and Scripting	2	2	0	0	3
	Subtotal					(15)

### Fall Semester

MAT 143	Quantitative Literacy	2	2	0	0	3
WBL 111	Work-Based Learning	0	0	0	10	1
WEB 210	Web Design	2	2	0	0	3
	Subtotal					(7)

**Total Semester Credit Hours in Program .....38**

## Web Technologies – Basic (C25290) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Fall Semester

WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3
	Subtotal					(6)

### Spring Semester

DBA 110	Database Concepts	2	3	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
	Subtotal					(6)

### Fall Semester

WEB 210	Web Design	2	2	0	0	3
	Subtotal					(3)

**Total Semester Credit Hours in Program ..... 15**

## Web Technologies – Graphics (C25290G) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Fall Semester

WEB 110	Internet/Web Fundamentals	2	2	0	0	3
WEB 120	Intro to Internet Multimedia	2	2	0	0	3
	Subtotal					(6)

### Spring Semester

WEB 111	Introduction to Web Graphics	2	2	0	0	3
WEB 115	Web Markup and Scripting	2	2	0	0	3
	Subtotal					(6)

### Fall Semester

WEB 210	Web Design	2	2	0	0	3
	Subtotal					(3)

**Total Semester Credit Hours in Program ..... 15**

## Web Technologies – Programming (C25290PR) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class	Lab	Clinic	Work Exp.	Credit
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### Fall Semester

CIS 115	Intro to Programming and Logic	2	3	0	0	3
WEB 110	Internet/Web Fundamentals	2	2	0	0	3
	Subtotal					(6)

### Spring Semester

WEB 115	Web Markup and Scripting	2	2	0	0	3
WEB 182	PHP Programming	2	2	0	0	3
WEB 215	Adv Markup and Scripting	2	2	0	0	3
	Subtotal					(9)

**Total Semester Credit Hours in Program ..... 15**

**Welding Technology (A50420)**  
**Associate in Applied Science Degree**

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metalworking industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses may include math, print reading, metallurgy, welding inspection, and destructive and non-destructive testing providing the student with industry-standard skills developed through classroom training and practical application.

Graduate of the Welding Technology curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

This curriculum complies with the standard approved by the State Board of Community Colleges.

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
WLD 110	Cutting Processes	1	3	0	0	2
WLD 112	Basic Welding Processes	1	3	0	0	2
WLD 115	SMAW (Stick) Plate	2	9	0	0	5
WLD 141	Symbols and Specifications	2	2	0	0	3
	Subtotal					(13)
<b>Spring Semester</b>						
ENG 111	Writing and Inquiry	3	0	0	0	3
WLD 116	SMAW (stick) Plate/Pipe	1	9	0	0	4
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
WLD 131	GTAW (TIG) Plate	2	6	0	0	4
	Humanities Elective**	3	0	0	0	3
	Subtotal					(18)
<b>Summer Term</b>						
MAT 110	Math Measurement & Literacy	2	2	0	0	3
WLD 265	Automated Welding/Cutting	2	6	0	0	4
WLD 270	Orbital Welding TIG/Pipe	2	6	0	0	4
	Subtotal					(11)

<b>Fall Semester</b>						
ENG 114	Prof Research and Reporting	3	0	0	0	3
WLD 117	Industrial SMAW	1	4	0	0	3
WLD 132	GTAW (TIG) Plate/Pipe	1	6	0	0	3
WLD 212	Inert Gas Welding	1	3	0	0	2
WLD 215	SMAW (Stick) Pipe	1	9	0	0	4
	Major Course Elective***					3
	Subtotal					(18)

<b>Spring Semester</b>						
WLD 231	GTAW (TIG) Pipe	1	6	0	0	3
WLD 261	Certification Practices	1	3	0	0	2
WLD 262	Inspection & Testing	2	2	0	0	3
	Major Course Elective***	3	0	0	0	3
	Social Science Elective**	3	0	0	0	3
	Subtotal					(14)

\*\*Humanities Electives and/or Social/Behavioral Science Electives are to be selected from the courses listed on page 46.

\*\*\*Major Course Electives are to be selected from the following:

MEC 111	Machine Processes	1	4	0	0	3
PCJ 262	Hand Wrought Metals	1	3	0	0	2
WBL 111	Work-Based Learning I	0	0	0	10	1
WBL 121	Work-Based Learning II	0	0	0	10	1
WLD 151	Fabrication I	2	6	0	0	4
WLD 214	Sanitary Welding	2	6	0	0	4
WLD 251	Fabrication II	1	6	0	0	3

**Total Semester Credit Hours in Program .....74**

**Welding Technology (D50420)**  
**Diploma**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

		Class	Lab	Clinic	Work	Credit
					Exp.	
<b>Fall Semester</b>						
ACA 115	Success and Study Skills	0	2	0	0	1
WLD 110	Cutting Processes	1	3	0	0	2
WLD 112	Basic Welding Processes	1	3	0	0	2
WLD 115	SMAW (Stick) Plate	2	9	0	0	5
WLD 141	Symbols and Specifications	2	2	0	0	3
	Subtotal					(13)
<b>Spring Semester</b>						
ENG 111	Writing and Inquiry	3	0	0	0	3
WLD 116	SMAW (stick) Plate/Pipe	1	9	0	0	4
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
WLD 131	GTAW (TIG) Plate	2	6	0	0	4
	Subtotal					(15)
<b>Summer Term</b>						
MAT 110	Math Measurement & Literacy	2	2	0	0	3
WLD 265	Automated Welding/Cutting	2	6	0	0	4
WLD 270	Orbital Welding TIG/Pipe	2	6	0	0	4
	Subtotal					(11)

**Total Semester Credit Hours in Program .....39**

### Welding Technology – Industrial Plate Welding (C50420IW) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

WLD 110	Cutting Processes	1	3	0	0	2
WLD 115	SMAW (Stick) Plate	2	9	0	0	5
WLD 141	Symbols and Specifications	2	2	0	0	3
	Subtotal					(10)

**Spring Semester**

WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	0	4
WLD 131	GTAW (TIG) Plate	2	6	0	0	4
	Subtotal					(8)

**Total Semester Credit Hours in Program ..... 18**

### Welding Technology – Industrial Pipe Welding (C50420PW) Certificate

**\*Students should take the Welding Technology – Industrial Plate Welding certificate prior to the Industrial Pipe Welding certificate.**

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

WLD 215	SMAW (Stick) Pipe	1	9	0	0	4
	Subtotal					(4)

**Spring Semester**

WLD 132	GTAW (TIG) Plate/Pipe	1	6	0	0	3
WLD 261	Certification Practices	1	3	0	0	2
WLD 262	Inspection and Testing	2	2	0	0	3
	Subtotal					(8)

**Summer Term**

WLD 270	Orbital Welding TIG/Pipe	2	6	0	0	4
	Subtotal					(4)

**Total Semester Credit Hours in Program ..... 16**

### Welding Technology – Manufacturer Welding (C50420MW) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Semester**

WLD 112	Basic Welding Processes	1	3	0	0	2
WLD 117	Industrial SMAW	1	4	0	0	3
WLD 141	Symbols and Specifications	2	2	0	0	3
WLD 151	Fabrication I	2	6	0	0	4
	Subtotal					(12)

**Spring Semester**

WLD 212	Inert Gas Welding	1	3	0	0	2
WLD 262	Inspection and Testing	2	2	0	0	3
	Subtotal					(5)

**Total Semester Credit Hours in Program ..... 17**

### Welding Technology – Fabrication (C50420WF) Certificate

Students may be required to take one or more developmental courses as a result of pre-enrollment placement tests; therefore, the student may need more than the minimum number of semester hours listed for graduation. Developmental courses for this program may include Readiness Level Reading, English, and/or Math and other courses in developmental Reading, English, Math, Biology and Chemistry. For more information on developmental courses, see page 46 or speak to your program advisor.

Class Lab Clinic Work Credit Exp.

**Fall Term**

WLD 110	Cutting Processes	1	3	0	0	2
WLD 117	Industrial SMAW	1	4	0	0	3
WLD 151	Fabrication I	2	6	0	0	4
	Subtotal					(9)

**Spring Semester**

WLD 212	Inert Gas Welding	1	3	0	0	2
WLD 251	Fabrication II	1	6	0	0	3
	Subtotal					(5)

**Total Semester Credit Hours in Program ..... 14**

**Students may earn additional certificates in the Production Pathway program. Speak to your faculty advisor for more information.**