PROGRAM LISTINGS
2012-2013

The following pages list alphabetically by discipline area, the curriculum programs to be offered by Catawba Valley Community College during the 2012-2013 academic year. Programs in addition to those shown are being planned and may be implemented prior to or during the year. Catawba Valley Community College reserves the right to delete or change programs and courses as may be required; however, this general catalog represents the most accurate information available concerning the CVCC curriculum at the time of its publication.

HOW TO USE THE LISTINGS

Each curriculum offered for credit is listed along with course numbers, titles, and semester hours of credit require for graduation. The credit hours shown in each curriculum are minimal, and are broken down as follows: class hours per week; lab hours per week; clinical/work experience hours per week (where applicable); and credit hours. Some courses entail both lab hours and clinical/work experience, and in these courses the number of hours for each is listed. Beginning on page 109 is a listing of descriptions for each credit course offered in each CVCC program. A complete course syllabus for each credit course is on file in the offices of the respective department chairpersons and is available for review by interested persons.

PROGRAM SEQUENCES

Program Sequences are suggestions only. The College retains the right to alter Program Sequences as it deems necessary.

COLLEGE TRANSFER

The College Transfer program is designed to parallel the freshman and sophomore years of study of a four-year college or university. In the first two years of college, students pursue a program of general education in the area of humanities, social and behavioral sciences, mathematics, and sciences.

Catawba Valley Community College provides advising to help students plan their program for transfer to the college of their choice. Students should structure their programs of study in conference with academic advisors, and admissions personnel at the college or university to which they wish to transfer. The structure of each student's program should be based on high school records, occupational goals, and choice of college to which the student plans to transfer.

COLLEGE TRANSFER

Associate in Arts Degree Curricula:
•Associate in Arts: General

Associate in Arts Diploma Curriculum:
• General Education Core

Associate in Science Degree Curricula:
•Associate in Science: General

Associate in Science Diploma Curriculum:
• General Education Core

Associate in Fine Arts Degree Curriculum:

• Pre-Major Associate in Fine Arts: Drama

• Pre-Major Associate in Fine Arts: Music & Music Education

Courses required to meet graduation requirements in this program are offered during day and evening hours.

Minimum time for completion:
Day -- four semesters full-time attendance;
Evening -- will vary according to semester load of student.

The Associate in Arts, Associate in Fine Arts, or Associate in Science Degree is awarded graduates of college transfer programs.

The Diploma may be awarded upon completion of the 44 hour general education core.

Comprehensive Articulation Agreement (CAA)

The governing boards of the North Carolina Community College System and the University of North Carolina, in response to a legislative mandate, have approved a Comprehensive Articulation Agreement (CAA) which addressed in a system-wide manner the transfer of students from the community colleges to the universities. This CAA is for the A.A. and A.S. degrees. It specifies a general education transfer core of 44 semester hours and reflects the distribution of discipline areas commonly included in institution-wide, lower division, general education requirements for the baccalaureate degree. The transfer core specifies study areas and semester hours credit (SHC) distributions for each. The core specifically includes the following for the A.A. degree: English composition (6 SHC), humanities/fine arts (12 SHC), social/behavioral sciences (12 SHC), mathematics (6 SHC), and natural sciences (8 SHC). The core specifically includes the following for the A.S. degree: English composition (6 SHC), humanities/fine arts (9 SHC), social/behavioral sciences (9 SHC), natural science/mathematics (20 SHC--includes a minimum of 6 SHC in mathematics and 8 SHC in natural sciences). Community colleges and universities have identified community college courses appropriate to a general education transfer core. Those courses are listed in this section of the catalog.

The 44 hour General Education transfer core, if completed successfully with grade C or better in each course, will transfer as a block across the community college system and to UNC institutions. No D grades will transfer.

Community college graduates receiving the A.A. or A.S. degree who have successfully completed the general education transfer core will be considered to have fulfilled the institution-wide, lower division, general education requirements of the receiving UNC institution and will have achieved junior status. Completion of the A.A. or A.S. degree includes a Transfer Assured Admissions Policy (TAAP), which assures admission to at least one of the 16 University of North Carolina institutions with the following stipulations:

- Admission is not assured to a specific campus or specific program or major.
- Students must have graduated from a NC community college with an A.A. or A.S. degree.
- Students must meet all requirements of the CAA.
- Students must have an overall GPA of at least 2.0 on a 4.0 scale, as calculated by the college from which they graduated, and a grade of "C" or better in all CAA courses.
- Students must be academically eligible for readmission to the last institution attended.
- Students must meet judicial requirements of the institution to which they applied.
- Students must meet all application requirements at the receiving institution including the submission of all required documentation by stated deadlines.

In addition, students must meet the specific senior institution's foreign language and/or health and physical education requirements. These requirements, if applicable, may be completed prior to or after transfer to the senior institution. Also, 3 SHC in speech/communications can be substituted for 3 SHC in the humanities/fine arts requirements; however, speech/communications cannot substitute for the literature requirement in the humanities/fine arts category.

Community college students who have completed the 44 SHC general education core with the proper distribution of hours, but have not completed the associate degree, will be considered to have fulfilled the institution-wide, lower division general education requirements of the receiving UNC institution. To be eligible, a student must have an overall GPA of 2.0 on a 4.0 scale at the time of transfer and a grade of "C" or better on all general education core courses.

Community college students who have not completed the general education core will have their transcripts evaluated on a course-by-course basis by the receiving institution.

Mission Statement for the General Education Program

The mission of the General Education Program is to develop solid reasoning skills and a background in the various disciplines upon which to base a program of lifelong learning. The skills to connect the world of the individual to the rest of the world will be important in preparing the student to become an effective citizen.

Goals and Competencies of General Education Courses

Communication

The student will gain proficiency in reading, writing, speaking and comprehending Standard English. The student will be able to communicate effectively in all three areas.

Mathematics

The student will gain proficiency in basic computational skills, fundamental algebraic concepts, and interpretational skills of numerical and graphical data as these skills apply to real world situations.

Arts and Humanities

The student will gain an appreciation of the aesthetic aspect of human existence and how human expression in this area gives insight into the foundations of the basic questions of value in human life.

Social and Behavioral Sciences

The student will gain an understanding of the dynamics of the physiological and psychological self, group and societal interaction, and have an introduction to the influences of past events on the present. Further, the student will gain the necessary application and communication skills to utilize this knowledge in future academic and vocational pursuits.

Natural Science

The student will be introduced to the methods, concepts, and principles of science; will be exposed to representative applications of science and how these affect our society; and will experience the gathering, organization and interpretation of data.

Foreign Languages

The student will gain an understanding of foreign culture, cultural diversity, and language skills necessary for reading and speaking the language.

ASSOCIATE IN ARTS DEGREE

Associate in Arts degree is recommended for students who plan to transfer to senior colleges and universities to pursue programs of study in Business Administration, Education, Liberal Arts, or any other area leading to the Bachelor of Arts Degree.

Associate in Arts Degree candidates must complete the following requirements:

	Courses	Semester Hour Credit
I.	**General Education Core (44 SHC)**	**44**
	English Composition (6 SHC) ENG 111, and ENG 112 or 113	
	Humanities/Fine Arts (12 SHC) Required-three (3) hours in literature to be selected from: ENG 231, 232, 241, 242, 251, 252, and a total of nine (9) hours from at least two different areas: Art, Drama, Language, Humanities, Music, Philosophy, Religion, or Speech.	
	Social/Behavioral Sciences (12 SHC) Required-three (3) hours in history selected from: HIS 111, 112, 121, 122, 131, 132 and a total of nine (9) hours from courses listed below. Courses must be selected from at least two different areas: Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.	
	Natural Sciences (8 SHC) Two semesters of Laboratory Science courses to be selected from: Astronomy, Biology, Chemistry, Geology, or Physics.	
	Mathematics (6 SHC) MAT 140/140A or Higher Level College Transfer Courses.	
II.	**Other Required Hours (21 SHC)** ACA 111 or ACA 122	**21**
	1 Hour **Computer Intensive Course**	
	3-4 Hours CIS 110 or CIS 115 CSC 120, CSC 134, CSC 139, or CSC 151 MAT 151 and MAT 151A PHY 151 or PHY 251	
	* Electives 16 - 17 Hours (* Recommended to be taken in Liberal Arts area and/or cognate areas to the major.)	
	Total	**65**

Students who plan to transfer to a senior institution should determine the physical education and language requirements of the institution they plan to attend. Although Catawba Valley Community College does not have a physical education or language requirement, many senior institutions do have one or both requirements, and courses should be taken during the freshman and sophomore years.

ASSOCIATE IN ARTS GRADUATION REQUIREMENTS

I. General Education Core (44 SHC)

A. English Composition (6 SHC).
ENG 111, and ENG 112, ENG 113, or ENG 114

B. Humanities/Fine Arts (12 SHC).
Choose four courses from three different prefix areas. One course must be ENG.

ARA 111	DRA 122	GER 111	REL 110
ARA 112	DRA 126	GER 112	REL 211
ART 111	ENG 231	HUM 110	REL 212
ART 114	ENG 232	HUM 120	REL 221
CHI 111	ENG 241	HUM 211	SPA 111
CHI 112	ENG 242	HUM 220	SPA 112
COM 110	ENG 251	MUS 110	SPA 211
COM 120	ENG 252	MUS 112	SPA 212
COM 231	FRE 111	MUS 212	
DRA 111	FRE 112	MUS 213	
DRA 112	FRE 211	PHI 210	
DRA 115	FRE 212	PHI 240	

C. Social/Behavioral Sciences (12 SHC).
Three (3) SHC in history is required for the AA degree, selected from HIS 111, 112, 121, 122, 131, 132 and a total of nine (9) SHC from courses listed below. Courses must be selected from at least two (2) different areas:
Anthropology, Economics, Geography, Political Science, Psychology, or Sociology.

ANT 220	HIS 111	PSY 237
ANT 221	HIS 112	PSY 239
ANT 230	HIS 121	PSY 241
ECO 251	HIS 122	PSY 281
ECO 252	HIS 131	SOC 210
GEO 111	HIS 132	SOC 213
GEO 112	POL 110	SOC 220
GEO 113	POL 120	SOC 225
GEO 130	PSY 150	SOC 230

D. Natural Sciences (8 SHC).

AST 151	BIO 130	CHM 152	PHY 151
AST 151A	BIO 140	GEL 111	PHY 152
AST 152	BIO 140A	GEL 113	PHY 251
AST 152A	CHM 131	GEL 120	PHY 252
BIO 111	CHM 131A	GEL 230	
BIO 112	CHM 132	PHY 110	
BIO 120	CHM 151	PHY 110A	

E. Mathematics (6 SHC).
*Select courses from the following:

MAT 140	MAT 171	MAT 175A
MAT 140A	MAT 171 A	MAT 263
MAT 151	MAT 172	MAT 263A
MAT 151A	MAT 172 A	MAT 271
MAT 161	MAT 175	MAT 272
MAT 161A		MAT 273

* When choosing from the pre-calculus series select only one from each series: MAT 171/MAT 171A and MAT 172/MAT 172A; OR MAT 175/MAT 175A.

II. Other Required Hours (21 SHC)
Computer Intensive Course
(One of the following)
CIS 110 or CIS 115
CSC 120, CSC 134, CSC 139, or CSC 151
MAT 151 and MAT 151A
PHY 151 or PHY 251

ACA 111 or ACA 122

*Electives: 17 hours

(*Recommended to be taken in Liberal Arts area and/or cognate areas to the major.)

ASSOCIATE IN ARTS: GENERAL
A.A. Program (A10100)

GENERAL EDUCATION COURSES: **SHC**

English Composition:

ENG 111 Expository Writing 3
ENG 112 Argument-Based Research 3
OR
ENG 113 Literature-Based Research 3

Humanities/Fine Arts:

English Literature Elective 3
Electives 9

Social/Behavioral Sciences:

History Elective 3
Electives 9

Natural Sciences/Mathematics:

Natural Sciences

Electives 8

Mathematics

MAT 140 Survey of Mathematics 3
OR
Higher Level College Transfer Math Course Elective 3
(Enrollment in the accompanying lab course is strongly recommended.)

OTHER REQUIRED COURSES:

ACA 111 College Student Success 1
OR
ACA 122 College Transfer Success 1

Computer Intensive Course 3-4

CIS 110 Introduction to Computers 3
OR
CIS 115 Intro to Prog & Logic 3

CSC 120 Computing Fundamentals I 4
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Prog 3
OR
CSC 151 JAVA Programming 3

MAT 140A Survey of Mathematics Lab 1

MAT 151 Statistics 1 3
and MAT 151A Statistics I Lab 1

PHY 151 College Physics I 4
OR
PHY 251 General Physics I 4

Electives 16
(Recommended to be taken in Liberal Arts area from CAA electives.)

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080 (Each One (1) credit hour) 1
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electives For Associate In Arts Programs Of Study

ACC 120
ACC 121
ARA 181
ARA 182
ART 130
ART 131
ART 132
ART 140
ART 171
ART 231
ART 232
ART 240
ART 241
ART 271
ART 274
ART 281
ART 282
ART 283
ART 284
BIO 143
BIO 145
BIO 146
BIO 155
BIO 163
BIO 168
BIO 169
BIO 175
BIO 221
BIO 222
BIO 224
BIO 225
BIO 226
BIO227
BIO 230
BIO 231
BIO 232
BIO 250
BIO 275
BIO 280
BUS 110
BUS 115
BUS 137
CHI 181
CHI 182
CHM 130
CHM 130A
CHM 251
CHM 252
CHM 261
CHM 263
CHM 271
CHM 271A
CJC 111
CJC 121
CJC 141
CSC 130
CSC 139
CSC 220
CSC 239
CTS 115
DAN 110
DAN 124
DAN 125
DAN 130
DAN 140
DAN 141
DAN 211
DAN 212
DAN 225
DAN 264
DFT 170
DRA 115
DRA 120
DRA 130
DRA 132
DRA 135
DRA 140
DRA 142
DRA 145
DRA 150
DRA 170
DRA 171
DRA 240
DRA 260
DRA 270
DRA 271
EDU 144
EDU 145
EDU 216
EDU 221
EGR 150
EGR 210
EGR 220
ENG 125
ENG 126
ENG 235
ENG 273
ENG 275
FRE 181
FRE 182
FRE 281
FRE 282
GEL 220
GEO 121
GER 181
GER 182
HEA 110
HEA 112
HEA 120
HIS 141
HIS 145
HIS 151
HIS 161
HIS 162
HIS 211
HIS 221
HIS 226
HIS 227
HIS 228
HIS 232
HIS 236
HIS 261
JOU 110
MAT 285
MUS 111
MUS 113
MUS 210
MUS 211
MUS 214
MUS 215
PED - Any
PHS 130
PHY 153
PHY 253
POL 130
PSY 211
PSY 231
PSY 243
PSY 244
PSY 245
PSY 246
PSY 247
PSY 263
PSY 275
SOC 215
SOC 234
SOC 242
SOC 244
SOC 250
SOC 254
SPA 141
SPA 161
SPA 181
SPA 182
SPA 221
SPA 281
SPA 282

ASSOCIATE IN SCIENCE DEGREE

The Associate in Science Degree is recommended for students who plan to transfer to senior colleges and universities to pursue programs of study in Agriculture, Dentistry, Engineering, Forestry, Furniture, Mathematics, Medicine, Science, Textiles, or other areas leading to a Bachelor of Science Degree.

Associate in Science Degree candidates must complete the following requirements:

Courses	Semester Hour Credit
I. General Education Core (44 SHC)	**44**
Communication (6 SHC) ENG 111, and ENG 112, ENG 113 or ENG 114	
Humanities/Fine Arts (9 SHC) Required-three (3) hours in literature to be selected from: ENG 231, 232, 241, 242, 251, 252, and a total of six (6) hours from at least two different areas: Art, Drama, Language, Humanities, Music, Philosophy, Religion, or Speech.	
Social/Behavioral Science (9 SHC) Required-three (3) hours in history selected from: HIS 111, 112, 121, 122, 131, 132 and a total of six (6) hours from courses listed below. Courses must be selected from at least two different areas: Anthropology, Economics, Geography, Political Science, Psychology or Sociology.	
Natural Science/Mathematics (20 SHC)	
Natural Sciences (8 SHC) A two semester laboratory science course sequence of eight (8) hours in Biology, Chemistry, or Physics.	
Mathematics (8 SHC) MAT 171/171A and MAT 172/172A or MAT 175/175A or MAT 271; and Required Four (4) Hour MAT Elective.	
Additional 4 SHC in Mathematics or Natural Sciences.	
II. Other Required Hours (21 SHC) ACA 111 or ACA 122 1 Hour Natural Science Electives and/or 4 Hours CSC 120, 130, 134, 220; DFT 170; OR EGR 220. Computer Intensive Course 3 Hours CIS 110 CSC 120; CSC 134; or CSC 151 MAT 151 and MAT 151A PHY 151 or PHY 251 Electives 13 Hours	**21**
Total	**65**

Students who plan to transfer to a senior institution should determine the physical education and language requirements of the institution they plan to attend. Although Catawba Valley Community College does not have a physical education or language requirement, many senior institutions do have one or both requirements, and courses should be taken during the freshman and sophomore years.

ASSOCIATE IN SCIENCE GRADUATION REQUIREMENTS

I. General Education Core (44 SHC)

A. Communication (6 SHC)
ENG 111, and ENG 112, ENG 113 or ENG 114

B. Humanities/Fine Arts (9 SHC).
Choose three (3) courses from three different prefix areas. One course must be ENG.

ARA 111	DRA 115	FRE 211	MUS 213
ARA 112	DRA 122	FRE 212	PHI 210
ART 111	DRA 126	GER 111	PHI 240
ART 114	ENG 231	GER 112	REL 110
CHI 111	ENG 232	HUM 110	REL 211
CHI 112	ENG 241	HUM 120	REL 212
COM 110	ENG 242	HUM 211	REL 221
COM 120	ENG 251	HUM 220	SPA 111
COM 231	ENG 252	MUS 110	SPA 112
DRA 111	FRE 111	MUS 112	SPA 211
DRA 112	FRE 112	MUS 212	SPA 212

C. Social/Behavioral Sciences (9 SHC).

Choose three (3) courses, a total of nine (9) SHC, from three (3) different prefix areas. One (1) must be History for AS degree.

ANT 220	GEO 130	POL 120	SOC 220
ANT 221	HIS 111	PSY 150	SOC 225
ANT 230	HIS 112	PSY 237	SOC 230
ECO 251	HIS 121	PSY 239	
ECO 252	HIS 122	PSY 241	
GEO 111	HIS 131	PSY 281	
GEO 112	HIS 132	SOC 210	
GEO 113	POL 110	SOC 213	

A total of 20 SHC must be in Natural Sciences or Mathematics.

D. Natural Sciences (8 SHC). Two (2) semester sequence.
BIO 111 & BIO 112, or CHM 151 & CHM 152, or PHY 151 & PHY 152 , or PHY 251 & PHY 252.

*You may choose from the following to complete your Natural Sciences or Mathematics electives.
AST 151 & AST 151A, AST 152, AST 152A, BIO 111, BIO 112, BIO 120, BIO 130, BIO 140 & BIO 140A, CHM 131, & CHM 131A, CHM 132, CHM 151, CHM 152, GEL 111, GEL 113, GEL 120, GEL 230, PHY 110 & PHY 110A, PHY 151, PHY 152, PHY 251, PHY 252. .

E. Mathematics (8 SHC). MAT 171 and MAT 172 or MAT 175 or MAT 271; and required four (4) hour MAT elective. Select courses from the following:

MAT 151	*MAT 172	MAT 271
MAT 151A	MAT 172A	MAT 272
*MAT 171	*MAT 175	MAT 273
MAT 171A	MAT 175A	

* Select only one: MAT 171 and MAT 172; or MAT 175.

II. Other Required Hours	(21 SHC)
ACA 111 or ACA 122	1 SHC
Natural Science Electives and/or CSC 120, 130, 134, 220; DFT 170; EGR 220; or GEL 113.	4 SHC
Computer Intensive Course CIS 110 CSC 120, CSC 134, or CSC 151 MAT 151 and MAT 151A PHY 151 or PHY 251	(3 SHC)
Electives:	13 SHC

Associate in Science: General
A.S. Program (A10400)

GENERAL EDUCATION COURSES: **SHC**

English Composition:

ENG 111 Expository Writing 3
ENG 112 Argument-Based Research 3
OR
ENG 113 Literature-Based Research 3
OR
ENG 114 Prof Reasearch & Reporting 3

Humanities/Fine Arts:

English Literature Elective 3
Electives 6

Social/Behavioral Sciences:

History Elective 3
Electives 6

Natural Sciences/Mathematics:

Natural Sciences

Electives 8

One (1) set of courses (8 SHC) from the following is required:

BIO 111 General Biology I 4
BIO 112 General Biology II 4
CHM 151 General Chemistry I 4
CHM 152 General Chemistry II 4
PHY 151 College Physics I 4
PHY 152 College Physics II 4
PHY 251 General Physics I 4
PHY 252 General Physics II 4

Mathematics

MAT 171 Precalculus Algebra 3
MAT 172 Precalculus Trigonometry 3
OR
MAT 175 Precalculus 4
OR
MAT 271 Calculus I 4

(Enrollment in the accompanying lab course is required. See Other Required Hours.)

Natural Sciences/Mathematics Electives 6

OTHER REQUIRED COURSES:

ACA 111 College Student Success 1
OR
ACA 122 College Transfer Success 1
MAT 171A Precalculus Algebra Lab 1
MAT 172A Precalculus Trig Lab 1
OR
MAT 175A Precalculus Lab 1

Computer Intensive Elective 3

Three (3) SHC from the following are required:

CSC 120 Computing Fundamentals I 4
CSC 134 C++ Programming 3
CSC 151 JAVA Programming 3
MAT 151 Statistics I 3
MAT 151A Statistics I Lab 1
PHY 151 College Physics I 4
PHY 251 General Physics I 4

Mathematics, Natural Sciences, or Computer Science Electives 11

One (1) of the following courses is recommended:

CSC 120 Computing Fundamentals I 4
CSC 130 Computing Fundamentals II 4
CSC 134 C++ Programming 3
CSC 220 Machine Implem of Algor 4
DFT 170 Engineering Graphics 3
EGR 220 Engineering Statics 3

Electives 4

(Recommended to be taken from Natural Sciences, Mathematics, or other courses that fit educational goals.)

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080 (Each One (1) credit hour) 1
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electives For Associate In Science Programs Of Study

ACC 120
ACC 121
ARA 181
ARA 182
BIO 143
BIO 145
BIO 146
BIO 155
BIO 163
BIO 168
BIO 169
BIO 175
BIO 221
BIO 222
BIO 224
BIO 225
BIO 226
BIO 227
BIO 230
BIO 231
BIO 232
BIO 250
BIO 275
BIO 280
BUS 110
BUS 115
BUS 137
CHM 130
CHM 130A
CHM 251
CHM 252
CHM 261
CHM 263
CHM 271
CHM 271 A
CHI 181
CHI 182
CJC 111
CJC 121
CJC 141
CSC 130
CSC 139
CSC 220
CSC 239
CTS 115
DFT 170
DRA 115
DRA 120
DRA 130
DRA 132
DRA 135
DRA 140
DRA 142
DRA 145
DRA 150
DRA 170
DRA 171
DRA 240
DRA 260
DRA 270
DRA 271
EDU 144
EDU 145
EDU 216
EDU 221
EGR 150
EGR 210
EGR 220
ENG 125
ENG 126
ENG 235
ENG 273
ENG 275
FRE 181
FRE 182
FRE 281
FRE 282
GEL 220
GEO 121
GER 181
GER 182
HEA 110
HEA 112
HEA 120
HIS 141
HIS 145
HIS 151
HIS 161
HIS 162
HIS 211
HIS 221
HIS 226
HIS 227
HIS 228
HIS 232
HIS 236
HIS 261
JOU 110
MAT 285
MUS 111
MUS 113
MUS 210
MUS 214
MUS 215
PED - Any
PHS 130
PHY 153
PHY 253
POL 130
PSY 211
PSY 231
PSY 243
PSY 244
PSY 245
PSY 246
PSY 247
PSY 263
PSY 275
SOC 215
SOC 234
SOC 242
SOC 244
SOC 250
SOC 254
SPA 141
SPA 161
SPA 181
SPA 182
SPA 221
SPA 281
SPA 282

ASSOCIATE IN FINE ARTS DEGREE (Drama)

The Associate in Fine Arts Degree is recommended for students who plan to transfer to senior institutions to pursue programs in the arts that lead to degrees of Bachelor of Fine Arts, Bachelor of Arts, Bachelor of Science in Art Education. Associate in Arts Degree candidates must complete the following requirements:

	SHC
I. General Education Core (28 SHC)	**28**
Communication (6 SHC)	
ENG 111, ENG 113	
Humanities/Fine Arts (6 SHC)	
Required-three (3) hours in literature to be selected from: ENG 231 or ENG 232, or ENG 241, or ENG242 and three (3) hours from one of the following: Art, Communication, Drama, Language, Humanities, Philosophy, or Religion.	
Social/Behavioral Science (9 SHC)	
Required-three (3) hours in History, three (3) hours in Psychology, and three (3) hours in Sociology.	
Natural Sciences (4 SHC)	
Required-four (4) hours of Astronomy, Biology, Chemistry, Geology, or Physics.	
Mathematics (3 SHC)	
MAT 140-Higher Level College Transfer Courses.	
II. Other Required Hours (37 SHC)	**37**
Mathematics Lab	1 Hour
Professional Program Courses	32 Hours
Drama Electives	3 Hours
ACA Eletive	1 Hour
Total 65	

Students who plan to transfer to a senior institution should determine the physical education and language requirements of the institution they plan to attend. Although Catawba Valley Community College does not have a physical education or language requirement, many senior institutions do have one or both requirements, and courses should be taken during the freshman and sophomore years.

ASSOCIATE IN FINE ARTS DEGREE GRADUATION REQUIREMENTS

I. General Education Core (28 SHC)

A. Communication (6 SHC)
ENG 111 and ENG 113

B. Humanities/Fine Arts (6 SHC).
Required three (3) hours of literature (ENG 231, 232, 241, or 242) and select one three (3) hour course from the following:

ART 111	DRA 112	HUM 211	REL 110
ART 114	DRA 115	MUS 110	REL 211
COM 110	DRA 122	MUS 213	REL 212
COM 231	DRA 126	PHI 210	REL 221
DRA 111	HUM 110	PHI 240	

C. Social/Behavioral Sciences (9 SHC).
Select three (3) hours in History, three (3) hours in Psychology, and three (3) hours in Sociology.

ANT 220	GEO 112	HIS 122	PSY 150
ANT 230	GEO 130	HIS 131	SOC 210
ECO 251	HIS 111	HIS 132	SOC 213
ECO 252	HIS 112	POL 110	SOC 220
GEO 111	HIS 121	POL 120	SOC 225

D. Natural Sciences (4 SHC).

AST 151	CHM 131	GEL 111	PHY 151
AST 151A	CHM 131 A	PHY 110	
BIO 111	CHM 151	PHY 110A	

E. Mathematics (3 SHC).

MAT 140	MAT 161	*MAT 172
MAT 140A	MAT 161A	MAT 172A
MAT 151	*MAT 171	*MAT 175
MAT 151A	MAT 171A	MAT 175A

* When choosing from the pre-calculus series select only one from each series: MAT 171/MAT 171A and MAT 172/MAT 172A;
OR MAT 175/MAT 175A.

II. Other Requirements (37 SHC)

Mathematics Lab	1 SHC
Professional Program Courses:	32 SHC
Drama Electives:	3 SHC
ACA Eletive:	1 SHC

Pre-Major Associate in Fine Arts: Drama A.F.A. Program (A1020C)

GENERAL EDUCATION COURSES:.....SHC

English Composition:

ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3

Humanities/Fine Arts:

ENG	231	American Literature I	3
OR			
ENG	232	American Literature II	3
OR			
ENG	241	British Literature I	3
OR			
ENG	242	British Literature II	3

Elective 3

One (1) course should be selected from the following:

ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
COM	110	Introduction to Communication	3
COM	231	Public Speaking	3
DRA	111	Theatre Appreciation	3
DRA	112	Literature of the Theatre	3
DRA	115	Theatre Criticism	3
DRA	122	Oral Interpretation	3
DRA	126	Storytelling	3
HUM	110	Technology and Society	3
HUM	211	Humanities I	3
MUS	110	Music Appreciation	3
MUS	213	Opera and Musical Theatre	3
PHI	210	History of Philosophy	3
PHI	240	Introduction to Ethics	3
REL	110	World Religions	3
REL	211	Intro to Old Testament	3
REL	212	Intro to New Testament	3
REL	221	Religion in America	3

Social/Behavioral Sciences:

Electives 9

Electives should be selected from three (3) discipline areas from the following. One course must be a History course:

ANT	220	Cultural Anthropology	3
ANT	230	Physical Anthropology	3
ECO	251	Prin of Microeconomics	3
ECO	252	Prin of Macroeconomics	3
GEO	111	World Regional Geography	3
GEO	112	Cultural Geography	3
GEO	130	General Physical Geography	3
HIS	111	World Civilization I	3
HIS	112	World Civilication II	3
HIS	121	Western Civilization I	3
HIS	122	Western Civilization II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	110	Intro Political Science	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
SOC	213	Sociology of the Family	3
SOC	220	Social Problems	3
SOC	225	Social Diversity	3

Natural Sciences/Mathematics:

Natural Sciences

Electives 4

Four (4) SHC should be selected from the following:

AST	151	General Astronomy I	3
AST	151A	General Astronomy I Lab	1
BIO	111	General Biology I	4
CHM	131	Introduction to Chemistry	3
CHM	131A	Introduction to Chemistry Lab	1
CHM	151	General Chemistry I	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
PHY	110A	Conceptual Physics Lab	1
PHY	151	College Physics I	4

Mathematics

Elective 3

One (1) course should be selected from the following:

MAT	140	Survey of Mathematics	3
MAT	151	Statistics I	3
MAT	161	College Algebra	3
MAT	171	Precalculus Algebra	3
MAT	172	Precalculus Trigonometry	3
MAT	175	Precalculus	4

(Enrollment in the accompanying lab course is strongly recommended or may be required.)

DRAMA, con't.

DRAMA, Con't.

Other Major Courses (All courses are required) 32

DRA	120	Voice for Performance	3
DRA	130	Acting One	3
DRA	131	Acting Two	3
DRA	140	Stagecraft I	3
DRA	145	Stage Make-up	2
DRA	170	Play Production	3
DRA	171	Play Production II	3
DRA	211	Theatre History	3
DRA	212	Theatre History II	3
DRA	270	Play Production III	3
DRA	271	Play Production IV	3

Drama Electives 3

DAN	110	Dance Appreciation	3
DAN	124	Jazz Dance I	1
DAN	125	Jazz Dance II	1
DAN	130	Ballet I	2
DAN	140	Modern Dance I	2
DAN	141	Modern Dance II	2
DAN	211	Dance History I	3
DAN	212	Dance History II	3
DAN	225	Choreography I	3
DAN	264	Dance Production	3
DRA	112	Literature of the Theatre	3
DRA	122	Oral Interpretation	3
DRA	124	Readers Theatre	3
DRA	128	Children's Theatre	3
DRA	135	Acting for the Camera I	3
DRA	136	Acting for the Camera II	3
DRA	141	Stagecraft II	3
DRA	142	Costuming	3
DRA	150	Stage Management	3
DRA	240	Lighting for the Theatre	3
DRA	260	Directing	3

OTHER REQUIRED COURSES:

Mathematics Lab		1
ACA 111	College Student Success	1
	OR	
ACA 122	College Transfer Success	1

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080 (Each One (1) credit hour)	1
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

DRAMA (A1020C)
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ACA	111	College Student Success	1	0	0	1
	OR	ACA 122 College Transfer Success				
ENG	111	Expository Writing	3	0	0	3
DRA	130	Acting One	0	6	0	3
DRA	140	Stagecraft I	0	6	0	3
DRA	170	Play Production	0	9	0	3
PSY	150	General Psychology	3	0	0	3
		Total	7	21	0	16
Spring - 1st year						
ENG	113	Literature Based Research	3	0	0	3
DRA	131	Acting Two	0	6	0	3
DRA	145	Stage Make-up	1	2	0	2
DRA	171	Play Production II	0	9	0	3
		Natural Science Elective				4
		Total	4	17	0	15
Summer - 1st year						
MAT	161	College Algebra	3	0	0	3
MAT	161 A	College Algebra Lab	0	2	0	1
		Total	3	2	0	4
Fall - 2nd year						
DRA	211	Theatre History I	3	0	0	3
DRA	260	Directing	0	6	0	3
DRA	270	Play Production III	0	9	0	3
ENG	231	American Literature I	3	0	0	3
	OR	ENG 232 American Literature II				
	OR	ENG 241 British Literature I				
	OR	ENG 242 British Literature II				
		History Elective	3	0	0	3
		Total	9	15	0	15
Spring - 2nd year						
DRA	120	Voice for Performance	3	0	0	3
DRA	212	Theatre History II	3	0	0	3
DRA	271	Play Production IV	0	9	0	3
SOC	210	Intro to Sociology	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	12	9	0	15
		Grand Total	35	64	0	65

ASSOCIATE IN FINE ARTS DEGREE (Music)

The Associate in Fine Arts Degree is recommended for students who plan to transfer to senior institutions (1) to pursue programs in the arts that lead to degrees of Bachelor of Fine Arts, Bachelor of Arts, Bachelor of Science in Art Education or (2) to pursue programs in music that lead to degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Music Education, Bachelor of Science in Music Education, or Bachelor of Music Performance. Associate in Arts Degree candidates must complete the following requirements:

	SHC
I. General Education Core (28 SHC)	**28**
Communication (6 SHC)	
ENG 111, ENG 113	
Humanities/Fine Arts (6 SHC)	
Required-three (3) hours in literature to be selected from: ENG 231 or 241, and three (3) hours from one of the following: Art, Communication, Drama, Language, Humanities, Philosophy, or Religion.	
Social/Behavioral Science (9 SHC)	
Required-three (3) hours in History, three (3) hours in Psychology, and three (3) hours in Sociology.	
Natural Sciences (4 SHC)	
Required-four (4) hours of Astronomy, Biology, Chemistry, Geology, or Physics.	
Mathematics (3 SHC)	
MAT 140-Higher Level College Transfer Courses.	
II. Other Required Hours (37 SHC)	**37**
Mathematics Lab	1 Hour
Professional Program Courses	30 Hours
Music Electives	6 Hours
Total 65	

ACA 111, College Student Success, or ACA 122, College Transfer Success, is strongly recommended.

Students who plan to transfer to a senior institution should determine the physical education and language requirements of the institution they plan to attend. Although Catawba Valley Community College does not have a physical education or language requirement, many senior institutions do have one or both requirements, and courses should be taken during the freshman and sophomore years.

ASSOCIATE IN FINE ARTS DEGREE GRADUATION REQUIREMENTS

I. General Education Core (28 SHC)

A. Communication (6 SHC)
ENG 111 and ENG 113

B. Humanities/Fine Arts (6 SHC).
Required three (3) hours of literature (ENG 231, 232, 241 or 242) and select one three (3) hour course from the following:

ART 111	DRA 112	MUS 110	REL 211
ART 114	DRA 122	MUS 213	REL 212
COM 110	DRA 126	PHI 210	REL 221
COM 231	HUM 110	PHI 240	
DRA 111	HUM 211	REL 110	

C. Social/Behavioral Sciences (9 SHC).
Select three (3) hours in History, three (3) hours in Psychology, and three (3) hours in Sociology.

ANT 220	GEO 112	HIS 122	PSY 150
ANT 230	GEO 130	HIS 131	SOC 210
ECO 251	HIS 111	HIS 132	SOC 213
ECO 252	HIS 112	POL 110	SOC 220
GEO 111	HIS 121	PSY 120	SOC 225

D. Natural Sciences (4 SHC).

AST 151	CHM 131	GEL 111	PHY 151
AST 151A	CHM 131A	PHY 110	
BIO 111	CHM 151	PHY110 A	

E. Mathematics (3 SHC).

MAT 140	MAT 161	*MAT 172
MAT 140A	MAT 161A	MAT 172A
MAT 151	*MAT 171	*MAT 175
MAT 151A	MAT 171A	MAT 175A

* When choosing from the pre-calculus series select only one from each series: MAT 171/MAT 171A and MAT 172/MAT 172A;
OR MAT 175/MAT 175A.

II. Other Requirements (37 SHC)

Mathematics Lab	1 SHC
Professional Program Courses:	30 SHC
Music Electives:	6 SHC

Pre-Major Associate in Fine Arts: Music and Music Education A.F.A. Program (A1020D)

GENERAL EDUCATION COURSES:.....SHC

English Composition:

ENG 111 Expository Writing 3
ENG 113 Literature-Based Research.....3

Humanities/Fine Arts:

ENG 231 American Literature I 3
OR
ENG 232 American Literature II.....3
OR
ENG 241 British Literature I 3
OR
ENG 242 British Literature II.....3

Humanities/Fine Arts Electives: 3
One (1) course should be selected from the following:

ART	111	Art Appreciation	3
ART	114	Art History Survey I	3
COM	110	Introduction to Communication	3
COM	231	Public Speaking	3
DRA	111	Theatre Appreciation	3
DRA	112	Literature of the Theatre	3
DRA	122	Oral Interpretation	3
DRA	126	Storytelling	3
HUM	110	Technology and Society	3
HUM	211	Humanities I	3
MUS	110	Music Appreciation	3
MUS	213	Opera and Musical Theatre	3
PHI	210	History of Philosophy	3
PHI	240	Introduction to Ethics	3
REL	110	World Religions	3
REL	211	Intro to Old Testament	3
REL	212	Intro to New Testament	3
REL	221	Religion in America	3

Social/Behavioral Sciences:

Electives 9
Electives should be selected from three (3) discipline areas from the following. One course must be a History course:

ANT	220	Cultural Anthropology	3
ANT	230	Physical Anthropology	3
ECO	251	Prin of Microeconomics	3
ECO	252	Prin of Macroeconomics	3
GEO	111	World Regional Geography	3
GEO	112	Cultural Geography	3
GEO	130	General Physical Geography	3
HIS	111	World Civilization I	3
HIS	112	World Civilization II	3
HIS	121	Western Civilization I	3
HIS	122	Western Civilization II	3
HIS	131	American History I	3
HIS	132	American History II	3
POL	110	Intro Political Science	3
POL	120	American Government	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
SOC	213	Sociology of the Family	3
SOC	220	Social Problems	3
SOC	225	Social Diversity	3

Natural Sciences/Mathematics:

Natural Sciences

Electives 4
Four (4) SHC should be selected from the following:

AST	151	General Astronomy I	3
AST	151A	General Astronomy I Lab	1
BIO	111	General Biology I	4
CHM	131	Introduction to Chemistry	3
CHM	131A	Introduction to Chemistry Lab	1
CHM	151	General Chemistry I	4
GEL	111	Introductory Geology	4
PHY	110	Conceptual Physics	3
PHY	110A	Conceptual Physics Lab	1
PHY	151	College Physics I	4

Mathematics

Elective 3
One (1) course should be selected from the following:

MAT	140	Survey of Mathematics	3
MAT	151	Statistics I	3
MAT	161	College Algebra	3
MAT	171	Precalculus Algebra	3
MAT	172	Precalculus Trigonometry	3
MAT	175	Precalculus	4

(Enrollment in the accompanying lab course is strongly recommended or may be required.)

MUSIC con't

Music and Music Education, Con't.

MAJOR COURSES:

Other Major Hours (All courses are required) 33

Mathematics Lab			1
MUS	121	Music Theory I	4
MUS	122	Music Theory II	4
MUS	131	Chorus I	1
MUS	132	Chorus II	1
MUS	231	Chorus III	1
MUS	232	Chorus IV	1
MUS	151	Class Music I	1
MUS	152	Class Music II	1
MUS	161	Applied Music I	2
MUS	162	Applied Music II	2
MUS	221	Music Theory III	4
MUS	222	Music Theory IV	4
MUS	251	Class Music III	1
MUS	252	Class Music IV	1
MUS	261	Applied Music III	2
MUS	262	Applied Music IV	2

Electives 4

Four (4) SHC should be selected from the following:

MUS	111	Fundamentals of Music	3
MUS	112	Introduction to Jazz	3
MUS	113	American Music	3
MUS	133	Band I	1
MUS	134	Band II	1
MUS	135	Jazz Ensemble I	1
MUS	136	Jazz Ensemble II	1
MUS	141	Ensemble I	1
MUS	142	Ensemble II	1
MUS	175	Recording Techniques I	2
MUS	176	Recording Techniques II	2
MUS	181	Show Choir I	4
MUS	182	Show Choir II	4
MUS	210	History of Rock Music	3
MUS	211	History of Country Music	3
MUS	212	American Musical Theatre	3
MUS	213	Opera and Musical Theatre	3
MUS	214	Electronic Music I	2
MUS	215	Electronic Music II	2
MUS	217	Elementary Conducting	2
MUS	233	Band III	1
MUS	234	Band IV	1
MUS	235	Jazz Ensemble III	1
MUS	236	Jazz Ensemble IV	1
MUS	241	Ensemble III	1
MUS	242	Ensemble IV	1
MUS	270	Music Literature	3
MUS	281	Show Choir III	4
MUS	282	Show Choir IV	4
MUS	283	Varied Cultures/Mus Perf	2

(Some courses may be used to satisfy other requirements. Therefore, they cannot also be used for elective credit to fulfill this requirement.)

Total Credit Hours Required 65

ACA 111, College Student Success,
or ACA 122, College Student Success, is strongly recommended.

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080 (Each One (1) credit hour)	1
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Music and Music Education & A1020D
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ACA	111	College Student Success (Recommended)	1	0	0	1
	OR	ACA 122 College Transfer Success (Rec.)				
ENG	111	Expository Writing	3	0	0	3
MUS	121	Music Theory I	3	2	0	4
MUS	151P	Class Piano I	0	2	0	1
MUS	161	Applied Music I (V,P,W,B,G,)	1	2	0	2
MUS	131	Chorus I	0	2	0	1
	OR MUS 141 Ensemble I					
	Math Elective		3	0	0	3
	(MAT 161 College Algebra and MAT 161A College Algebra Lab - Recommended)					
		Total	11	8	0	15
Spring - 1st year						
ENG	113	Literature Based Research	3	0	0	3
MUS	122	Music Theory II	3	2	0	4
MUS	152P	Class Piano II	0	2	0	1
MUS	162	Applied Music II	1	2	0	2
MUS	132	Chorus II	0	2	0	1
	OR MUS 142 Ensemble II					
	Natural Science Elective					4
	Music Elective					2
		Total	7	8	0	17
Fall - 2nd year						
MUS	221	Music Theory III	3	2	0	4
MUS	251P	Class Piano III	0	2	0	1
MUS	261	Applied Music III	1	2	0	2
MUS	231	Chorus III	0	2	0	1
	OR MUS 241 Ensemble III -					
PSY	150	General Psychology	3	0	0	3
SOC	210	Intro to Sociology	3	0	0	3
	Music Elective					2
		Total	10	8	0	16
Spring - 2nd year						
MUS	222	Music Theory IV	3	2	0	4
MUS	252P	Class Piano IV	0	2	0	1
MUS	262	Applied Music IV	1	2	0	2
MUS	232	Chorus IV	0	2	0	1
	OR MUS 242 Ensemble IV					
ENG	231	American Literature I	3	0	0	3
	OR ENG 232 American Literature II					
	OR ENG 241 British Literature I					
	OR ENG 242 British Literature II					
	Humanities/Fine Arts Elective					3
	History Elective					3
		Total	7	8	0	17
		Grand Total	35	32	0	65

CAREER PROGRAMS

Career programs are offered in the Schools of Academics, Education & Fine Arts; Business, Industry & Technology; Health and Public Services. Specific program offerings and options are listed alphabetically. Descriptions for career courses are listed alphabetically by subject area in the course listings beginning on page 116.

SCHOOL OF ACADEMICS, EDUCATION & FINE ARTS

In addition to excellent two-year programs in such diverse areas as Early Childhood Education, Photography, and Graphics, the School offers general education core courses for students planning to transfer to a four-year institution. An agreement with the University of North Carolina system as well as many private colleges assures that our graduates' courses will be accepted for full credit. Studies in the humanities, sciences, arts, social sciences, English, and mathematics are a part of the general education core and are given high priority by our creative, innovative faculty members. The following programs are offered in the School of Academics, Education, and Fine Arts:

- Associate in Arts
- Associate in Fine Arts: Pre-Major Music & Music Education
- Associate in Fine Arts: Pre-Major Drama
- Associate in Science
- Associate in General Education
- Advertising and Graphic Design
- Early Childhood Education
- Infant/Toddler Care Certificate
- Graphic Arts & Imaging Technology
- Health & Fitness Science
- Photographic Technology

SCHOOL OF BUSINESS, INDUSTRY & TECHNOLOGY

Today's emerging digital economy demands problem solving skills using state-of-the-art technology and equipment. Programs within CVCC's School of Business, Industry & Technology use some of the most current technology to prepare you for a rapidly changing marketplace. From our Workforce Development Innovation Center which provides services to help businesses succeed in today's global economy, to our academic departments, we stand prepared to assist you in reaching your goals. The School of Business, Industry, and Technology is known for its talented faculty, staff, students and alumni. These stakeholders have worked to create an innovative climate that stresses teamwork, entrepreneurship, a global point of view, and an emphasis on new ideas and fresh perspectives. The following programs are offered in the School of Business, Industry, and Technology:

- Accounting
- Air Conditioning, Heating and Refrigeration Technology
- Architectural Technology
- Automotive Systems Technology
- Business Administration
- Computer Engineering Technology
- Computer Information Technology
- Computer-Integrated Machining Technology
- Computer Programming
- Cosmetology
- Electrical/Electronics Technology
- Electronics Engineering Technology
- Entrepreneurship
- Funeral Service Education (Collaborative)
- General Occupational Technology
- Horticulture Technology
- Industrial Systems Technology
- Information Systems Security
- Mechanical Engineering Technology
- Networking Technology
- Office Administration
- Truck Driver Training (Collaborative)
- Turfgrass Management Technology
- Furniture Upholstery
- Web Technologies
- Welding Technology

SCHOOL OF HEALTH AND PUBLIC SERVICES

Individuals choosing health services should have an appreciation for human life, enjoy working with people of all ages, and be interested in the application of biological and scientific principles. Students will spend time in clinical facilities, hospitals, and other locations gaining skills through first-hand experience under the direction of competent professionals. Graduates of health and human resources associate degree programs may seek immediate employment. Students who are interested in pursuing a four year degree should contact their advisor or Student Services for specific information. Public Services provides comprehensive programs that offer associate degrees, certificates, and training in an array of disciplines and occupational interest to the Public Services community. In addition, technical pre-service and in-service advanced training is provided in a number of areas. Certificates are offered for Basic Law Enforcement Training (BLET) and in a range of criminal justice themes. Continuing/in-service public safety instruction is also provided in the areas of emergency medical training, fire and rescue. The following programs are offered in the School of Health and Public Services:

- Basic Law Enforcement Training
- Cardiovascular Sonography (Collaborative)
- Criminal Justice Technology
- Criminal Justice Technology: Latent Evidence Concentration
- Cyber Crime Technology
- Dental Hygiene
- Electroneurodiagnostic Technology
- Emergency Medical Science
- Fire Protection Technology
- Health Information Technology
- Healthcare Management Technology
- Medical Office Administration
- Medical Sonography (Collaborative)
- Medical Transcription
- Nuclear Medicine Technology (Collaborative)
- Associate Degree Nursing
- Pathology (Collaborative)
- Physical Therapist Assistant (Collaborative)
- Polysomnography
- Radiography
- Respiratory Therapy
- Speech-Language Pathology (Collaborative)
- Surgical Technology

COOPERATIVE EDUCATION

Cooperative Education (Co-op) is designed to give students enrolled in many programs within the College a chance to work on a job while completing their degree. This combination of classroom instruction with practical/related work experience provides numerous benefits to participating students.

Co-op students work one or more semesters in part-time or full time jobs related to their major. Academic credit is given for the learning gained during the work period. Students are assigned to a Co-op faculty coordinator and receive on-the-job supervision by the employers.

Admission to the Cooperative Education program is based on scholarship and interest, not financial need. Employers select the students and determine salaries to be offered; therefore, the college does not guarantee placement for all who are eligible.

Eligibility. Students who are enrolled in programs offering Co-op for academic credit and who have completed a minimum of 12 credit hours at the college (unless otherwise specified by the program) are eligible to participate if they meet the following conditions:

1. Have a minimum 2.00 GPA.
2. Obtain approval from Co-op program staff.
3. Have approval of Co-op faculty coordinator.
4. Willing to follow program guidelines.
5. Certain curriculum programs may specify additional conditions.

Application Procedure. Interested students should schedule an interview with the Coordinator of Cooperative Education. Students are selected on the basis of information obtained from their application, college transcripts, and an interview regarding career goals. After students have been accepted into the program, the Co-op program staff or faculty coordinator will be responsible for locating and/or approving an appropriate work assignment.

Academic Credit. Co-op students may earn one or more semester hours of Cooperative Education credit toward completion of diploma or degree requirements in approved curriculums.

Registration. Registration for Co-op courses is restricted. Students will meet with the Coordinator of Cooperative Education to register for these courses.

Students interested in Cooperative Education are invited to contact the Co-op Office. Information is also available through faculty advisors.

NOTE: Co-op options are listed under each participating curriculum course schedule.

PROGRAM SEQUENCES

Program Sequences are suggestions only. The College retains the right to alter Program Sequences as it deems necessary.

CAREER PROGRAM ELECTIVES

Humanities/fine arts and/or Social/behavioral science elective courses are specified in some programs. In order to assist students in planning their schedules, courses in these categories that are generally offered at CVCC are listed. Additional courses can be viewed at http://www.nccommunitycolleges.edu/Programs/docs/GenEd_Matrix_09-28-2010.pdf.

If a course is specified as a required course in the program sequence, it may not be chosen as an elective. All prerequisites and corequisites must be met for these courses.

In programs where only one (1) Humanities/Fine Arts elective is required, introductory foreign language courses are not accepted as the elective.

Humanities/Fine Arts Elective

ART	111	Art Appreciation	3-0-0-3
ART	114	Art History Survey I	3-0-0-3
DRA	111	Theatre Appreciation	3-0-0-3
DRA	112	Literature of the Theatre	3-0-0-3
DRA	120	Voice for Performance	3-0-0-3
DRA	122	Oral Interpretation	3-0-0-3
DRA	126	Storytelling	3-0-0-3
DRA	130	Acting I	0-6-0-3
ENG	125	Creative Writing I	3-0-0-3
ENG	231	American Literature I	3-0-0-3
ENG	232	American Literature II	3-0-0-3
ENG	241	British Literature I	3-0-0-3
ENG	242	British Literature II	3-0-0-3
ENG	251	Western World Literature I	3-0-0-3
ENG	252	Western World Literature II	3-0-0-3
ENG	273	African-American Literature	3-0-0-3
ENG	275	Science Fiction	3-0-0-3
HUM	110	Technology & Society	3-0-0-3
HUM	120	Cultural Studies	3-0-0-3
HUM	211	Humanities I	3-0-0-3
HUM	220	Human Values and Meaning	3-0-0-3
MUS	110	Music Appreciation	3-0-0-3
MUS	111	Fundamentals of Music	3-0-0-3
MUS	112	Introduction to Jazz	3-0-0-3
MUS	213	Opera and Musical Theatre	3-0-0-3
PHI	210	History of Philosophy	3-0-0-3
PHI	240	Introduction to Ethics	3-0-0-3
REL	110	World Religions	3-0-0-3
REL	211	Intro to Old Testament	3-0-0-3
REL	212	Intro to New Testament	3-0-0-3
REL	221	Religion in America	3-0-0-3
SPA	141	Culture and Civilization	3-0-0-3

Social/Behavioral Science Elective

ANT	220	Cultural Anthropology	3-0-0-3
ANT	221	Comparative Cultures	3-0-0-3
ANT	230	Physical Anthropology	3-0-0-3
ECO	251	Prin of Microeconomics	3-0-0-3
ECO	252	Prin of Macroeconomics	3-0-0-3
GEO	111	World Regional Geography	3-0-0-3
GEO	112	Cultural Geography	3-0-0-3
GEO	113	Economic Geography	3-0-0-3
GEO	121	North Carolina Geography	3-0-0-3
GEO	130	General Physical Geography	3-0-0-3
HIS	111	World Civilizations I	3-0-0-3
HIS	112	World Civilizations II	3-0-0-3
HIS	121	Western Civilization I	3-0-0-3
HIS	122	Western Civilization II	3-0-0-3
HIS	131	American History I	3-0-0-3
HIS	132	American History II	3-0-0-3
HIS	151	Hispanic Civilization	3-0-0-3
HIS	162	Women and History	3-0-0-3
HIS	211	Ancient History	3-0-0-3
HIS	221	African-American History	3-0-0-3
HIS	226	The Civil War	3-0-0-3
HIS	227	Native American History	3-0-0-3
HIS	236	North Carolina History	3-0-0-3
HIS	261	East Asian History	3-0-0-3
POL	110	Intro Political Science	3-0-0-3
POL	120	American Government	3-0-0-3
POL	130	State & Local Government	3-0-0-3
PSY	110	Life Span Development	3-0-0-3
PSY	150	General Psychology	3-0-0-3
PSY	244	Child Development I	3-0-0-3
PSY	245	Child Development II	3-0-0-3
SOC	210	Introduction to Sociology	3-0-0-3
SOC	213	Sociology of the Family	3-0-0-3
SOC	220	Social Problems	3-0-0-3
SOC	225	Social Diversity	3-0-0-3
SOC	230	Race and Ethnic Relations	3-0-0-3
SOC	234	Sociology of Gender	3-0-0-3
SOC	242	Sociology of Deviance	3-0-0-3
SOC	244	Soc of Death & Dying	3-0-0-3
SOC	250	Sociology of Religion	3-0-0-3
SOC	254	Rural & Urban Sociology	3-0-0-3

ACCOUNTING
A.A.S. Program (A25100)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day -- four semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. 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.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG 111	Expository Writing	3
ENG 112 OR ENG 113 OR ENG 114	Argument-Based Research / Literature-Based Research / Prof Research & Reporting	3

Humanities/Fine Arts:

Elective		3

Natural Sciences/Mathematics:

MAT 115 OR MAT 161	Mathematical Models / College Algebra	3
MAT 161A	College Algebra Lab	1

Social/Behavioral Sciences:

Elective		3

MAJOR COURSES:

ACC	120	Prin of Financial Acct	4
ACC	121	Prin of Managerial Acct	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2
ACC	150	Acct Software Appl	2
ACC	220	Intermediate Accounting I	4
ACC	225	Cost Accounting	3
ACC	240	Gov & Not-for-Profit Acct	3
BUS	110	Introduction to Business	3
BUS	115	Business Law I	3
BUS	116	Business Law II	3
CIS	110	Introduction to Computers	3
COE	110	World of Work	1
CTS	130	Spreadsheet	3
ECO	251	Prin of Microeconomics	3

Accounting Electives **7**

ACC	130	Business Income Taxes	3
ACC	221	Intermediate Acct II	4
ACC	269	Autiting & Assurance Services	3
BUS	125	Personal Finance	3
BUS	139	Entrepreneurship I	3
BUS	245	Entrepreneurship II	3
COE	XXX	Co-op Work Experience	1-6

Total Credit Hours Required 66-67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080	Computing Fundamentals	3
ENG 090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 60, DMA 70, DMA 80	8
RED 090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Accounting • A25100
Suggested Program Sequence Day

	Class	Lab	Clin/WkExp	Credit
Fall - 1st year				
ACC 120 Principles of Financial Accounting	3	2	0	4
BUS 110 Introduction to Business	3	0	0	3
ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
OR MAT 161 College Algebra	3	0	0	3
MAT 161 A College Algebra Lab	0	2	0	1
Social/Behavorial Science Elective	3	0	0	3
Total	14/15	4	0	16/17
Spring - 1st year				
ACC 121 Principles of Managerial Accounting	3	2	0	4
BUS 115 Business Law I	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	3
ENG 112 Argument Based Research (Preferred)	3	0	0	3
OR ENG 113 Literature Based Research	3	0	0	3
OR ENG 114 Prof. Research and Development	3	0	0	3
Accounting Elective	3	0	0	3
Total	14	4	0	16
Fall - 2nd year				
ACC 129 Individual Income Taxes	2	2	0	3
ACC 220 Intermediate Accounting I	3	2	0	4
ACC 225 Cost Accounting	3	0	0	3
CTS 130 Spreadsheet	2	2	0	3
Humanities/Fine Arts Elective	3	0	0	3
Total	13	6	0	16
Spring - 2nd year				
ACC 140 Payroll Accounting	1	2	0	2
ACC 150 Accounting Software Applications	1	2	0	2
ACC 240 Government and Not-for-Profit Acct	3	0	0	3
BUS 116 Business Law II	3	0	0	3
COE 110 World of Work	1	0	0	1
ECO 251 Principles of Microeconomics	3	0	0	3
Accounting Elective	3	2	0	4
Total	15	6	0	18
Grand Total	56/57	20	0	66/67

ACCOUNTING - Diploma Program (D25100)

GENERAL EDUCATION COURSES:			SHC
ENG	111	Expository Writing	3
Social/Behavioral Sciences Elective			3

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Acct	4
ACC	121	Prin of Managerial Acct	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2
ACC	150	Acct Software Appl	2
BUS	110	Introduction to Business	3
BUS	115	Business Law I	3
CIS	110	Introduction to Computers	3
COE	110	World of Work	1
CTS	130	Spreadsheet	3
ECO	251	Prin of Microeconomics	3

Total Credit Hours Required 37

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	090	Improved College Reading	4
ENG	090	Composition Strategies	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Accounting - Diploma Program (D25100) Suggested Sequence

Fall - 1st year						
ACC	120	Principles of Financial Accounting	3	2	0	4
BUS	110	Introduction to Business	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
ENG	111	Expository Writing	3	0	0	3
		Total	11	4	0	13
Spring - 1st year						
ACC	121	Principles of Managerial Accounting	3	2	0	4
ACC	140	Payroll Accounting	1	2	0	2
ACC	150	Accounting Software Applications	1	2	0	2
BUS	115	Business Law I	3	0	0	3
		Total	8	6	0	11
Fall - 2nd year						
ACC	129	Individual Income Taxes	2	2	0	3
CTS	130	Spreadsheet	2	2	0	3
ECO	251	Principles of Microeconomics	3	0	0	3
		Total	7	4	0	9
Spring - 2nd year						
COE	110	World of Work	1	0	0	1
		Social/Behavorial Science Elective	3	0	0	3
		Total	4	0	0	4
		Grand Total	30	14	0	37

ACCOUNTING
General - Certificate Program (C2510001)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Acct	4
ACC	121	Prin of Managerial Acct	4
ACC	129	Individual Income Taxes	3
ACC	140	Payroll Accounting	2

Total Credit Hours Required 13

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	090	Improved College Reading	4
ENG	090	Composition Strategies	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

General - Certificate Program • (C2510001)
Suggested Prog. Seq. Day

Fall - 1st Year						
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	121	Principles of Managerial Accounting	3	2	0	4
		Total	6	4	0	8
Spring - 1st Year						
ACC	129	Individual Income Taxes	2	2	0	3
ACC	140	Payroll Accounting	1	2	0	2
		Total	3	4	0	5
		Grand Total	9	8	0	13

ACCOUNTING
Computerized - Certificate Program (C2510003)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Acct	4
ACC	150	Acct Software Appl	2
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3

Total Credit Hours Required 12

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	090	Improved College Reading	4
ENG	090	Composition Strategies	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Computerized - Cert. Prog. • (C2510003)
Suggested Program Sequence Day

Fall - 1st Year						
ACC	120	Principles of Financial Accounting	3	2	0	4
CIS	110	Introduction to Computers	2	2	0	3
		Total	5	4	0	7
Spring - 1st Year						
ACC	150	Accounting Software Applications	1	2	0	2
CTS	130	Spreadsheet	2	2	0	3
		Total	3	4	0	5
		Grand Total	8	8	0	12

ACCOUNTING
Taxation - Certificate Program (C2510004)

MAJOR COURSES:			SHC
ACC	120	Prin of Financial Acct	4
ACC	129	Individual Income Taxes	3
ACC	130	Business Income Taxes	3
ACC	140	Payroll Accounting	2

Total Credit Hours Required 12

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	090	Improved College Reading	4
ENG	090	Composition Strategies	3

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Taxation - Certificate Program • (C2510004)
Suggested Program Sequence Day

Fall - 1st Year						
ACC	120	Principles of Financial Accounting	3	2	0	4
ACC	129	Individual Income Taxes	2	2	0	3
		Total	5	4	0	7
Spring - 1st Year						
ACC	130	Business Income Taxes	2	2	0	3
ACC	140	Payroll Accounting	1	2	0	2
		Total	3	4	0	5
		Grand Total	8	8	0	12

ADVERTISING AND GRAPHIC DESIGN
A.A.S. Program (A30100)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.
The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession, which emphasizes design, advertising, illustration, and digital and multimedia preparation of printed and electronic promotional materials. Students will be trained in the development of concept and design for promotional materials such as newspaper and magazine advertisements, posters, folders, letterheads, corporate symbols, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media. Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, a wide variety of manufacturing industries, newspapers, and businesses with in-house graphics operations.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Expository Writing 3
ENG 114 Prof Research & Reporting 3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 140 Survey of Mathematics 3
MAT 140A Survey of Mathematics Lab 1

Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:
BUS 110 Introduction to Business 3
GRA 151 Computer Graphics I 2
GRA 152 Computer Graphics II 2
GRA 153 Computer Graphics III 2
GRA 255 Image Manipulation I 2
GRD 110 Typography I 3
GRD 121 Drawing Fundamentals I 2
GRD 131 Illustration I 2
GRD 141 Graphic Design I 4
GRD 142 Graphic Design II 4
GRD 180 Interactive Design 3
GRD 241 Graphic Design III 4
GRD 249 Advanced Design Practice 4
GRD 265 Digital Print Production 3
GRD 280 Portfolio Design 4
MKT 120 Principles of Marketing 3
Program Elective OR Co-op 3

Students are required to take 3 SHC from the following:
ART 131 Drawing I 3
ART 264 Digital Photography I 3
CIS 110 Introduction to Computers 3
COE XXX Co-op Work Experience 1-3
GRA 121 Graphic Arts I 4
GRA 245 Printing Sales/Service 3
GRA 256 Image Manipulation II 2
MKT 220 Advertising and Sales Promotion 3
MKT 221 Consumer Behavior 3
PHO 110 Fund of Photography 5
PRN 155 Screen Printing I 2
SGD 111 Introduction to SGD 3
SGD 112 SGD Design 3
SGD 114 3D Modeling 3
WEB 110 Internet/Web Fundamentals 3
WEB 111 Intro to Web Graphics 3
WEB 120 Intro Internet Multimedia 3

OTHER REQUIRED COURSES:
ACA 111 College Student Success 1

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of 3 hours Program electives.

Total Credit Hours Required 67

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Advertising and Graphic Design • A30100
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st Year					
ACA 111	College Student Success	1	0	0	1
GRA 151	Computer Graphics I	1	3	0	2
GRD 141	Graphic Design I	2	4	0	4
GRD 110	Typography I	2	2	0	3
GRD 121	Drawing Fundamentals I	1	3	0	2
ENG 111	Expository Writing	3	0	0	3
	Total	10	12	0	15
Spring - 1st year					
GRA 152	Computer Graphics II	1	3	0	2
GRD 142	Graphic Design II	2	4	0	4
GRA 255	Image Manipulation I	1	3	0	2
GRD 131	Illustration I	1	3	0	2
ENG 114	Prof Research & Reporting	3	0	0	3
	Total	8	13	0	13
Summer - 1st year					
BUS 110	Introduction to Business	3	0	0	3
MAT 140	Survey of Mathematics	3	0	0	3
MAT 140A	Survey of Mathematics Lab	0	2	0	1
	OR a higher Math				
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
GRA 153	Computer Graphics III	1	3	0	2
GRD 180	Interactive Design	1	4	0	3
GRD 241	Graphic Design III	2	4	0	4
GRD 265	Digital Print Production	1	4	0	3
MKT 120	Principles of Marketing	3	0	0	3
	Total	8	15	0	15
Spring - 2nd year					
GRD 249	Advanced Design Practice	1	9	0	4
GRD 280	Portfolio Design	2	4	0	4
	Humanities/Fine Arts Elective	3	0	0	3
	Program Elective OR Co-op Work Experience				3
	Total	6	13	0	14
	Grand Total	41	55	0	67

Program Electives- Must be selected from the following list:
ART 131, ART 264, CIS 110, COE XXX, GRA 121, GRA 245, GRA 256, MKT 220, MKT 221, PHO 110, PRN 155, SGD 111, SGD 112, SGD 114, WEB 110, WEB 111, WEB 120.

Advertising and Graphic Design - Cert. Program (C30100)

MAJOR COURSES: **SHC**
GRD 141 Graphic Design I 4
GRA 151 Computer Graphics I 2
GRD 142 Graphic Design II 4
GRA 152 Computer Graphics II 2

Total Credit Hours Required 12

Advertising and Graphic Design - Cert. Prog. • (C30100)
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st Year					
GRD 141	Graphic Design I	2	4	0	4
GRA 151	Computer Graphics I	1	3	0	2
	Total	3	7	0	6
Spring - 1st Year					
GRD 142	Graphic Design II	2	4	0	4
GRA 152	Computer Graphics II	1	3	0	2
	Total	3	7	0	6
	Grand Total	6	14	0	12

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

Diploma Program (D35100)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours Minimum time for completion: Day -- two semesters full-time attendance; Evening -- four semesters of part-time attendance. The Diploma is awarded graduates of this curriculum. The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems. Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	102	Applied Communications II	3
OR			
ENG	111	Expository Writing	3
Natural Sciences/Mathematics:			
MAT	101	Applied Mathematics I	3
OR			
MAT	115	Mathematical Models	3
MAJOR COURSES:			
AHR	110	Intro to Refrigeration	5
AHR	111	HVACR Electricity	3
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling-	4
AHR	114	Heat Pump Technology	4
AHR	130	HVAC Controls	3
AHR	151	HVAC Duct Systems I	2
AHR	160	Refrigerant Certification	1
AHR	180	HVACR Customer Relations	1
AHR	210	Residential Building Code	2
AHR	211	Residential System Design	3
COE	110	World of Work	1
Total Credit Hours Required			**39**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
MAT	DMA 010, DMA 020, DMA 030		3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating and Refrigeration • D35100
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	112	Heating Technology	2	4	0	4
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	160	Refrigeration Certification	1	0	0	1
AHR	211	Residential Systems Design	2	2	0	3
		Total	10	17	0	18
Spring - 1st year						
AHR	113	Comfort Cooling	2	4	0	4
AHR	210	Residential Building Code	1	2	0	2
AHR	114	Heat Pump Technology	2	4	0	4
AHR	130	HVAC Controls	2	2	0	3
AHR	180	HVACR Customer Relations	1	0	0	1
COE	110	World of Work	1	0	0	1
MAT	101	Applied Mathematics I	2	2	0	3
OR	MAT 115	Mathematical Models	2	2	0	3
		Total	10	14	0	18
Summer - 1year						
ENG	102	Applied Communications II	3	0	0	3
OR	ENG 111	Expository Writing	3	0	0	3
		Total	3	0	0	3
		Grand Total	23	31	0	39

Air Conditioning, Heating and Refrigeration • D35100
Suggested Program Sequence Night

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
MAT	101	Applied Mathematics I	2	2	0	3
OR	MAT 115	Mathematical Models	2	2	0	3
		Total	6	10	0	11
Spring - 1st year						
AHR	160	Refrigeration Certification	1	0	0	1
AHR	113	Comfort Cooling	2	4	0	4
AHR	130	HVAC Controls	2	2	0	3
		Total	5	6	0	8
Fall - 2nd year						
AHR	112	Heating Technology	2	4	0	4
AHR	151	HVAC Duct Systems I	1	3	0	2
AHR	211	Residential Systems Design	2	2	0	3
		Total	5	9	0	9
Spring - 2nd year						
AHR	114	Heat Pump Technology	2	4	0	4
AHR	180	HVACR Customer Relations	1	0	0	1
AHR	210	Residential Building Code	1	2	0	2
COE	110	World of Work	1	0	0	1
		Total	5	6	0	8
Summer - 2nd year						
ENG	102	Applied Communications II	3	0	0	3
OR	ENG 111	Expository Writing	3	0	0	3
		Total	3	0	0	3
		Grand Total	23	31	0	39

Air Conditioning, Heating and Refrigeration Certificate • C35100

MAJOR COURSES:			
AHR	110	Intro to Refrigeration	5
AHR	111	HVACR Electricity	3
AHR	112	Heating Technology	4
AHR	160	Refrigerant Certification	1

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating and Refrigeration Certificate • C35100
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
AHR	112	Heating Technology	2	4	0	4
AHR	160	Refrigeration Certification	1	0	0	1
		Total	7	12	0	13
		Grand Total	7	12	0	13

Air Conditioning, Heating and Refrigeration Certificate • C35100
Suggested Program Sequence Night

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
AHR	110	Intro to Refrigeration	2	6	0	5
AHR	111	HVACR Electricity	2	2	0	3
		Total	4	8	0	8
Spring - 1st year						
AHR	160	Refrigeration Certification	1	0	0	1
		Total	1	0	0	1
Summer - 2nd year						
AHR	112	Heating Technology	2	4	0	4
		Total	2	4	0	4
		Grand Total	7	12	0	13

ARCHITECTURAL TECHNOLOGY
A.A.S. Program (A40100)

Most courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: four semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions. Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications, as well as complete a design project. Optional courses may be provided to suit specific career needs. Upon completion graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:.....

ENG 111 Expository Writing.....3
ENG 114 Prof Research & Reporting.....3
OR
ENG 112 Argument-Based Research.....3
OR
ENG 113 Literature-Based Research.....3

Humanities/Fine Arts :

Elective 3

Natural Sciences/Mathematics:

MAT 121 Algebra/Trigonometry I.....3

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

ARC 111 Intro to Arch Technology.....3
ARC 112 Constr Matls & Methods.....4
ARC 113 Residential Arch Tech.....3
ARC 114 Architectural CAD.....2
ARC 114A Architectural CAD Lab.....1
ARC 119 Structural Drafting.....3
ARC 131 Building Codes.....3
ARC 132 Specifications and Contracts.....2
ARC 211 Light Constr Technology.....3
ARC 213 Design Project.....4
ARC 220 Adv Architect CAD.....2
ARC 230 Environmental Systems.....4
ARC 235 Architectural Portfolio.....3
ARC 240 Site Planning.....3
ARC 250 Survey of Architecture.....3
CIS 110 Introduction to Computers.....3
CIV 230 Construction Estimating.....3

Co-op Option: Qualified students may elect to take 2 credit hours of cooperative education in place of ARC 132.

Total Credit Hours Required.....64

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
ENG 090 Composition Strategies.....3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050.....5
RED 090 Improved College Reading.....4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Description section for prerequisite course information.

Architectural Technology • A40100
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ARC 111	Intro to Architectural Technology	1	6	0	3
ARC 112	Construction Materials and Methods	3	2	0	4
ARC 250	Survey of Architecture	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Total	12	10	0	16
Spring - 1st year					
ARC 113	Residential Arch Technology	1	6	0	3
ARC 114	Architectural CAD	1	3	0	2
ARC 114A	Architectural CAD Lab	0	3	0	1
ARC 131	Building Codes	2	2	0	3
ENG 111	Expository Writing	3	0	0	3
MAT 121	Algebra/Trigonometry I	2	2	0	3
	Total	9	16	0	15
Fall - 2nd year					
ARC 119	Structural Drafting	2	2	0	3
ARC 211	Light Construction Technology	1	6	0	3
ARC 220	Adv Architectural CAD	1	3	0	2
ARC 240	Site Planning	2	2	0	3
CIV 230	Construction Estimating	2	3	0	3
ENG 114	Prof. Research and Reporting (Preferred)	3	0	0	3
	OR ENG 112 Argument-Based Research	3	0	0	3
	OR ENG 113 Literature-Based Research	3	0	0	3
	Total	11	16	0	17
Spring - 2nd year					
ARC 132	Specifications and Contracts	2	0	0	2
ARC 213	Design Project	2	6	0	4
ARC 230	Environmental Systems	3	3	0	4
ARC 235	Architectural Portfolio	2	3	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	12	12	0	16
	Grand Total	44	54	0	64

Co-op Option: Qualified students may elect to take up to 2 credit hours of cooperative education in place of ARC 132.

ASSOCIATE DEGREE NURSING
A.A.S. Program (A45110)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded to graduates of this curriculum.

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 Licensure 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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG 111		Expository Writing	3
ENG 112		Argument-Based Research	3
OR			
ENG 113		Literature-Based Research	3
OR			
ENG 114		Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO 168		Anatomy and Physiology I	4
BIO 169		Anatomy and Physiology II	4
Social/Behavioral Sciences:			
PSY 150		General Psychology	3
MAJOR COURSES:			
BIO 275		Microbiology	4
CIS 111		Basic PC Literacy	2
NUR 111		Intro to Health Concepts	8
NUR 112		Health-Illness Concepts	5
NUR 113		Family Health Concepts	5
NUR 114		Holistic Health Concepts	5
NUR 211		Health Care Concepts	5
NUR 212		Health System Concepts	5
NUR 213		Complex Health Concepts	10
PSY 241		Developmental Psych	3
Total Credit Hours Required			**72**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS 080		Computing Fundamentals	3
ENG 090		Composition Strategies	3
MAT		DMA 010, DMA 020, DMA 030, DMA 040, DMA 050	5
RED 090		Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Associate Degree Nursing • A45110
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
NUR 111	Intro to Health Concepts	4	6	6	8
BIO 168	Anatomy & Physiology I	3	3	0	4
PSY 150	General Psychology	3	0	0	3
CIS 111	Basic PC Literacy	1	2	0	2
	Total	11	11	6	17
Spring - 1st year					
NUR 112	Health-Illness Concepts	3	0	6	5
NUR 114	Holistic Health Concepts	3	0	6	5
BIO 169	Anatomy & Physiology II	3	3	0	4
PSY 241	Developmental Psychology	3	0	0	3
	Total	12	3	12	17
Summer - 1st year					
NUR 212	Health System Concepts	3	0	6	5
ENG 111	Expository Writing	3	0	0	3
	Total	6	0	6	8
Fall - 2nd year					
NUR 113	Family Health Concepts	3	0	6	5
NUR 211	Health Care Concepts	3	0	6	5
BIO 275	Microbiology	3	3	0	4
	Humanities Elective	3	0	0	3
	Total	12	3	12	17
Spring - 2nd year					
NUR 213	Complex Health Concepts	4	3	15	10
ENG 113	Literature-Based Research (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 114 Prof Research & Reporting	3	0	0	3
(Students considering transfer to a four-year university should take ENG 113)					
	Total	7	3	15	13
	Grand Total	48	20	51	72

Associate Degree Nursing • A45110 Suggested Prog. Sequence Evening

Spring - 1st year					
NUR 111 AB	Intro to Health Concepts	2	3	3	4
BIO 168	Anatomy & Physiology I	3	3	0	4
CIS 111	Basic PC Literacy	1	2	0	2
	Total	6	8	3	10
Summer - 1st year					
NUR 111 BB	Intro to Health Concepts	2	3	3	4
BIO 169	Anatomy & Physiology II	3	3	0	4
PSY 150	General Psychology	3	0	0	3
	Total	8	6	3	11
Fall - 1st year					
NUR 112	Health-Illness Concepts	3	0	6	5
NUR 114	Holistic Health Concepts	3	0	6	5
PSY 241	Developmental Psychology	3	0	0	3
	Total	9	0	12	13
Spring - 2nd year					
NUR 211	Health Care Concepts	3	0	6	5
NUR 212	Health System Concepts	3	0	6	5
ENG 111	Expository Writing	3	0	0	3
	Total	9	0	12	13
Summer - 2nd year					
NUR 113	Family Health Concepts	3	0	6	5
BIO 275	Microbiology	3	3	0	4
	Total	6	3	6	9
Fall - 2nd year					
NUR 213 AB	Complex Health Concepts	2	2	7	5
	Humanities Elective	3	0	0	3
	Total	5	2	7	8
Spring - 3rd year					
NUR 213 BB	Complex Health Concepts	2	1	8	5
ENG 113	Literature-Based Research (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 114 Prof Research & Reporting	3	0	0	3
(Students considering transfer to a four-year university should take ENG 113)					
	Total	5	1	8	8
	Grand Total	48	20	51	72

ASSOCIATE DEGREE NURSING
Hickory RIBN Articulation Agreement
A.A.S. Program (A45110RB)

Catawba Valley Community College
Associate Degree in Nursing
And
Lenoir-Rhyne University
Bachelors of Science Degree with a Major in Nursing

This articulation agreement between Catawba Valley Community College (CVCC) and Lenoir-Rhyne University (LRU) allows graduates of Hickory RIBN to earn both an Associate Degree in Nursing from CVCC and a Bachelor of Science Degree with a Major in Nursing from LRU in 10 semesters through dual admission and continued enrollment. Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion of the A.A.S. portion is seven semesters full-time attendance. During this time students will be dually enrolled in CVCC and LRU. The Associate in Applied Science Degree is awarded to graduates of this curriculum, after which students will be eligible to take the NCLEX. The remaining three semesters will be taken at Lenoir-Rhyne University for a total of 10 program semesters.

Non-nursing courses completed at CVCC for the first three years will, as designated, satisfy course requirements towards the Bachelor of Science degree.

All courses designated by **(LRU/BS)** shown in the CVCC sequence will be completed at LRU for the first three years of Hickory RIBN. A total of 128 semester hours are required for students to complete their bachelors of science degree with a major in Nursing.

All courses designated by **(BS)** will be taken on CVCC's campus, and will be credited toward the bachelor of science degree.

Nursing students will enroll in NUR 300, Transition to Professional Practice (3 SHC), during the ninth semester. Successful completion of this course results in the awarding of a 39 semester hour block of credit.

GENERAL EDUCATION COURSES: .....SHC

English/Communications:
ENG 111 Expository Writing.....3
ENG 113 Literature-Based Research.....3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
BIO 168 Anatomy and Physiology I.....4
BIO 169 Anatomy and Physiology II 4

Social/Behavioral Sciences:
PSY 150 General Psychology 3

MAJOR COURSES:
BIO 275 Microbiology.....4
CIS 111 Basic PC Literacy.....2
NUR 111 Intro to Health Concepts 8
NUR 112 Health-Illness Concepts 5
NUR 113 Family Health Concepts.....5
NUR 114 Holistic Health Concepts 5
NUR 211 Health Care Concepts.....5
NUR 212 Health System Concepts 5
NUR 213 Complex Health Concepts 10
PSY 241 Developmental Psych.....3

Total Credit Hours Required 72

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals.....3
ENG 090 Composition Strategies.....3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, ...5
RED 090 Improved College Reading.....4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Associate Degree Nursing/RIBN • A45110RB
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
BIO	168	Anatomy & Physiology I	3	3	0	4
CHM	131	Introduction to Chemistry **(BS)**	3	0	0	3
CHM	131A	Introcudtion to Chemistry Lab **(BS)**	0	3	0	1
ENG	111	Expository Writing	3	0	0	3
PSY	150	General Psychology	3	0	0	3
FYE	191	First Year Experience I **(LRU/BS)**				3
		Total	12	6	0	17
Spring - 1st year						
BIO	169	Anatomy & Physiology II	3	3	0	4
CIS	110	Introduction to Computers **(BS)**	2	0	0	3
	OR					
CIS	111	Basic PC Literacy AND	3	2	0	2
		PED (1 Hour Activity) **(BS)**	0	2	0	1
MAT	151	Statistics I **(BS)**	3	0	0	3
MAT	151A	Statistics I Lab **(BS)**	0	2	0	1
PSY	241	Developmental Psychology	3	0	0	3
FYE	192	First Year Experience II **(LRU/BS)**				3
		Total	11/12	5/6	0	17
Fall - 2nd year						
NUR	111	Intro to Health Concepts	4	6	6	8
BIO	275	Microbiology	3	3	0	4
		Foreign Language **(LRU/BS)**				3
		Total	7	9	6	15
Spring - 2nd year						
NUR	112	Health-Illness Concepts	3	0	6	5
NUR	114	Holistic Health Concepts	3	0	6	5
HEA	110	Personal Health/Wellness **(BS)**	3	0	0	3
		Foreign Language **(LRU/BS)**				3
		Total	9	0	12	16
Summer - 2nd year						
NUR	212	Health System Concepts	3	0	6	5
ENG	113	Literature-Based Research	3	0	0	3
		Total	6	0	6	8
Fall - 3rd year						
NUR	113	Family Health Concepts	3	0	6	5
NUR	211	Health Care Concepts	3	0	6	5
REL	100	Christian Faith **(LRU/BS)**				3
		Fine Arts Elective	3	0	0	3
		Total	9	0	12	16
Spring 3rd year						
NUR	213	Complex Health Concepts	4	3	15	10
COM	110	Introduction to Communication **(BS)**	3	0	0	3
	OR					
COM	231	Public Speaking **(BS)**	3	0	0	3
SOC	XXX	Sociology **(LRU/BS)**				3
		Total	7	3	15	16
		Grand Total	61/62	23/24	51	105

• Semester Hour Totals include courses taken at Lenoir Rhyne

Note: The following courses will be taken at Lenoir-Rhyne University upon completion of the A.A.S., at CVCC.

Summer - 3rd year			
NUR	202	Assessment of Health Status **(LRU)**	3
NUR	435	Analytical Methods for Evidence-Based Practice **(LRU)**	3
		Total	6
Fall 4th year			
NUR	300	Transition to Professional Practice **(LRU)**	3
NUR	455	Health Promotion with Populations & Families **(LRU)**	3
NAT	388	Environmental Science-Level II **(LRU)**	3
		Humanities Level I **(LRU)**	3
		Total	12
Spring 4th year			
NUR	456	Concepts of Leadership in Nursing **(LRU)**	3
NUR	477	Applied Health Care **(LRU)**	4
HSB	388	Level II **(LRU)**	3
		OR	
HUM	388	Level II **(LRU)**	3
		NUR Elective-Select Topics **(LRU)**	2
		Total	12

ASSOCIATE in GENERAL EDUCATION
A.G.E. Program (A10300)

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 advancements within their field of interest and become better qualified for a wide range of employment opportunities.

*****All courses in the program are college-level courses. Many of the courses are equivalent to college transfer courses; however, the program is not principally designed for college transfer.

GENERAL EDUCATION CORE (15 SHC)

The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition. Within the core, colleges must include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and the basic use of computers (SACS Criteria, 4.2.2).

English Composition (6 SHC)

Humanities/Fine Arts (3 SHC)

Select courses from the following discipline areas: music, art, drama, dance, foreign languages, interdisciplinary humanities, literature, philosophy and religion.

Social/Behavioral Sciences (3 SHC)

Select courses from the following discipline areas: anthropology, economics, geography, history, political science, psychology, and sociology.

Natural Sciences/Mathematics (3 SHC)

Mathematics

Select courses from the following discipline areas: college algebra, trigonometry, calculus, computer science, and statistics.

or

Natural Sciences

Select courses from the following discipline areas: astronomy, biology, chemistry, earth sciences, physics, and/or general science.

OTHER REQUIRED HOURS (49-50 SHC)

Other required hours include additional general education and professional courses. A maximum of 7 SHC in health, physical education, college orientation, and/or study skills may be included as other required hours.

TOTAL SEMESTER HOURS CREDIT (SHC) IN PROGRAM: 64-65

AUTOMOTIVE SYSTEMS TECHNOLOGY
A.A.S. Program (A60160)

Courses required to meet graduation requirements for the Associate in Applied Science Degree are offered during day hours. Courses required to meet graduation requirements for the Diploma are offered during afternoon and evening hours. Minimum time for completion: Day--five semesters full-time attendance; Evening--five semesters part-time attendance. The Associate in Applied Science degree or Diploma is awarded graduates of this curriculum. The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field. Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains. Upon completion of this curriculum, students should be prepared to take the ASE exams and be ready for full-time employment in dealerships and repair shops in the automotive service industry. The Automotive Systems Technology program is ASE Accredited by the National Automotive Technicians Education Foundation.

GENERAL EDUCATION COURSES: ..... SHC

English/Communications:

ENG 111 Expository Writing 3
ENG 114 Prof Research & Reporting 3
OR
ENG 112 Argument-Based Research 3
OR
ENG 113 Literature-Based Research 3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models 3
OR
MAT 161 College Algebra 3
MAT 161A College Algebra Lab 1

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

AUT 116 Engine Repair 3
AUT 116A Engine Repair Lab 1
AUT 141 Suspension & Steering Sys 3
AUT 141A Suspension & Steering Lab 1
AUT 151 Brake Systems 3
AUT 151A Brake Systems Lab 1
AUT 163 Adv Auto Electricity 3
AUT 163A Adv Auto Electricity Lab 1
AUT 181 Engine Performance 1 3
AUT 181A Engine Performance 1 Lab 1
AUT 183 Engine Performance 2 4
AUT 212 Auto Shop Management 3
AUT 221 Auto Transm/Transaxles 3
AUT 221A Auto Transm/Transax Lab 1
AUT 231 Man Trans/Axles/Drtrains 3
AUT 231A Man Trans/Ax/Drtrains Lab 1
AUT 281 Adv Engine Performance 3
COE 110 World of Work 1
TRN 110 Intro to Transport Tech 2
TRN 120 Basic Transp Electricity 5
TRN 140 Transp Climate Control 2
TRN 140A Transp Climate Cont Lab 2
TRN 170 Pc Skills for Transp 2

Co-op Option: Qualified students may elect to take up to 7 credit hours of cooperative education in place of AUT 116A, AUT 141A, AUT 151A, AUT 163A, AUT 181A, AUT 221A, or AUT 231A.

Total Credit Hours Required 67/68

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology • A60160
Suggested Program Sequence Day

	Class	Lab	Clin/WkExp	Credit
Fall - 1st year				
AUT 116 Engine Repair (1st 8 weeks)	2	3	0	3
AUT 116A Engine Repair Lab (1st 8 weeks)	0	3	0	1
AUT 181 Engine Performance I (2nd 8 weeks)	2	3	0	3
AUT 181A Engine Performance I Lab (2nd 8 weeks)	0	3	0	1
TRN 110 Intro to Transport Tech	1	2	0	2
TRN 120 Basic Transp Electricity	4	3	0	5
TRN 170 Pc Skills for Transp	1	2	0	2
Total	10	19	0	17
Spring - 1st year				
AUT 183 Engine Performance II (1st 8 weeks)	2	6	0	4
AUT 151 Brake Systems (2nd 8 weeks)	2	3	0	3
AUT 151A Brake Systems Lab (2nd 8 weeks)	0	3	0	1
AUT 163 Adv Auto Electricity	2	3	0	3
AUT 163A Adv Auto Electricity Lab	0	3	0	1
COE 110 World of Work	1	0	0	1
Total	6	18	0	13
Summer - 1st year				
ENG 111 Expository Writing	3	0	0	3
Social/Behavioral Science Elective	3	0	0	3
Total	6	0	0	6
Fall - 2nd year				
AUT 141 Suspension & Steering Sys (2nd 8 Weeks)	2	3	0	3
AUT 141A Suspension & Steering Lab (2nd 8 Weeks)	0	3	0	1
AUT 212 Auto Shop Management	3	0	0	3
AUT 281 Adv Engine Performance	2	2	0	3
TRN 140 Transp Climate Control (1st 8 weeks)	1	2	0	2
TRN 140A Transp Climate Cont Lab (1st 8 weeks)	1	2	0	2
Total	9	12	0	14
Spring - 2nd year				
AUT 221 Auto Transm/Transaxles (2nd 8 Weeks)	2	3	0	3
AUT 221A Auto Transm/Transaxles Lab (2nd 8 Weeks)	0	3	0	1
AUT 231 Man Trans/Axles/Drtrains (1st 8 weeks)	2	3	0	3
AUT 231A Man Trans/Axles/Drtrains Lab (1st 8 weeks)	0	3	0	1
MAT 115 Mathematical Models	2	2	0	3
OR MAT 161 College Algebra	3	0	0	3
MAT 161A College Algebra Lab	0	2	0	1
Total	6/7	14	0	11/12
Summer - 2nd year				
ENG 114 Prof. Research & Reporting (Preferred)	3	0	0	3
OR ENG 112 Argument-Based Research	3	0	0	3
OR ENG 113 Literature-Based Research	3	0	0	3
Humanities/Fine Art Elective	3	0	0	3
Total	6	0	0	6
Grand Total	43/44	63	0	67/68

Co-op Option: Qualified students may elect to take up to 7 credit hours of cooperation education in place of AUT 116A, AUT 141A, AUT 151A, AUT 163A, AUT 181A, AUT 221A, or AUT 231A.

AUTOMOTIVE SYSTEMS TECHNOLOGY
Diploma Program (D60160)

GENERAL EDUCATION COURSES: .....SHC

English/Communications:

ENG 111 Expository Writing 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models 3

MAJOR COURSES:

AUT 116 Engine Repair 3
AUT 116A Engine Repair Lab 1
AUT 141 Suspension & Steering Sys 3
AUT 141A Suspension & Steering Lab 1
AUT 151 Brake Systems 3
AUT 151A Brake Systems Lab 1
AUT 163 Adv Auto Electricity 3
AUT 181 Engine Performance 1 3
AUT 181A Engine Performance 1 Lab 1
AUT 183 Engine Performance 2 4
AUT 221 Auto Transm/Transaxles 3
AUT 221A Auto Transm/Transax Lab 1
AUT 231 Man Trans/Axles/Drtrains 3
AUT 231A Man Trans/Ax/Drtrains Lab 1
COE 110 World of Work 1
TRN 110 Intro to Transport Tech 2
TRN 120 Basic Transp Electricity 5
TRN 140 Transp Climate Control 2
TRN 140A Transp Climate Cont Lab 2

Automotive Systems Technology
Co-op Option: Qualified students may elect to take up to 4 credit hours of cooperative education in place of AUT 116A, AUT 141A, AUT 151A, AUT 181A, AUT 221A, or AUT 231A.

Total Credit Hours Required 48

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
ENG 090 Composition Strategies 3
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology - Diploma • D60160
Suggested Program Sequence Evening

Fall - 1st year						
AUT	116	Engine Repair (2nd 8 Wks)	2	3	0	3
AUT	116A	Engine Repair Lab (2nd 8 Wks)	0	3	0	1
TRN	110	Intro to Transport Tech	1	2	0	2
TRN	120	Basic Transp Electricity (1st 8 Wks)	4	3	0	5
		Total	7	11	0	11
Spring - 1st year						
AUT	151	Brake Systems (1st 8 Wks)	2	3	0	3
AUT	151A	Brake Systems Lab (1st 8 Wks)	0	3	0	1
AUT	163	Adv Auto Electricity (2nd 8 Wks)	2	3	0	3
MAT	115	Mathematical Models	2	2	0	3
		Total	6	11	0	10
Fall - 2nd year						
AUT	181	Engine Performance I (1st 8 Wks)	2	3	0	3
AUT	181A	Engine Performance I Lab (1st 8 Wks)	0	3	0	1
AUT	231	Man Trans/Axles/Drtrains (2nd 8 Wks)	2	3	0	3
AUT	231A	Man Trans/Axles/Drtrains Lab (2nd 8 Wks)	0	3	0	1
		Total	4	12	0	8
Spring - 2nd year						
AUT	221	Auto Transm/Transaxles (1st 8 Wks)	2	3	0	3
AUT	221A	Auto Transm/Transaxles Lab (1st 8 Wks)	0	3	0	1
AUT	183	Engine Performance II (2nd 8 Wks)	2	6	0	4
ENG	111	Expository Writing	3	0	0	3
		Total	7	12	0	11
Fall - 3rd year						
AUT	141	Suspension & Steering (2nd 8 Wks)	2	3	0	3
AUT	141A	Suspension & Steering Lab (2nd 8 Wks)	0	3	0	1
TRN	140	Transp Climate Control (1st 8 weeks)	1	2	0	2
TRN	140A	Transp Climate Cont Lab (1st 8 weeks)	1	2	0	2
		Total	4	10	0	8
		Grand Total	28	56	0	48

AUTOMOTIVE SYSTEMS TECHNOLOGY
Under Car Services Concentration Cert. Program (C60160)

Major Courses .....SHC

AUT 141 Suspension & Steering Sys 3
AUT 141A Suspension & Steering Lab 1
AUT 151 Brake Systems 3
AUT 151A Brake Systems Lab 1
TRN 110 Intro to Transport Tech 2
TRN 120 Basic Transp Electricity 5

Total Credit Hours Required 15

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
DMA 010, DMA 020, DMA 030 3
RED 080 Intro to College Reading 4

* Developmental course work (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computer. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology - Under Car Services Concentration Certificate Program (C60160) Suggested Sequence

Fall - 1st Year						
TRN	110	Intro to Transport Tech	1	2	0	2
TRN	120	Basic Transp Electricity	4	3	0	5
AUT	141	Suspension & Steering Sys	2	3	0	3
AUT	141A	Suspension & Steering Lab	0	3	0	1
		Total	7	11	0	11
Spring - 1st Year						
AUT	151	Brake Systems	2	3	0	3
AUT	151A	Brake Systems Lab	0	3	0	1
		Total	2	6	0	4
		Grand Total	9	17	0	15

Co-op Option: Qualified students may elect to take up to 2 credit hours of cooperation education in place of AUT 141A, AUT 151A.

BASIC LAW ENFORCEMENT TRAINING
Certificate Program (C55120)

This course is designed, developed, monitored, and constantly updated by the Criminal Justice Training and Standards Division of the North Carolina Department of Justice. Minimum time for completion is approximately six months. Classes meet during evening hours and on Saturdays.

Basic Law Enforcement Training (BLET) is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments, or with private enterprise. This program utilizes State commission-mandated topics and methods of instruction. General subjects include, but are not limited to, criminal, juvenile, civil, traffic, and alcoholic beverage laws; investigative, patrol, custody, and court procedures; emergency responses; and ethics and community relations. Successful graduates receive a curriculum certificate and are qualified to take certification examinations mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or the North Carolina Sheriffs' Education and Training Standards Commission.

The application cycle for the Fall class begins in March and ends in June, with the application cycle for the Spring class beginning in August and ending in November. Contact the Law Enforcement Training Director at 828-327-7000, extension 4448 for further information on the application process and to receive an application packet.

MAJOR COURSES: .....SHC

CJC 100 Basic Law Enforcement Training 19
Total Credit Hours Required.....19

BUSINESS ADMINISTRATION
A.A.S. Program (A25120)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day -- four semesters full-time attendance; Evening -- will vary according to semester load of student (usually eight to nine semesters.) The Associate in Applied Science Degree is awarded graduates of this curriculum.

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. Graduates are prepared for employment opportunities in governmental agencies, financial institutions, and large to small business or industry.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:

ENG 111 Expository Writing 3
ENG 112 Argument-Based Research 3
OR ENG 113 Literature-Based Research.....3
OR ENG 114 Prof Research & Reporting.....3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models.....3
OR MAT 161 College Algebra 3
MAT 161A College Algebra Lab 1

Social/Behavioral Sciences:

Elective 3

MAJOR COURSES:

ACC 120 Prin of Financial Acct.....4
ACC 121 Principles in Managerial Acct.....4
BUS 110 Introduction to Business.....3
BUS 115 Business Law I 3
BUS 116 Business Law II 3
BUS 137 Principles of Management.....3
BUS 240 Business Ethics.....3
BUS 285 Business Managment Issues.....3
CIS 110 Introduction to Computers.....3
COE 110 World of Work 1
ECO 251 Prin of Microeconomics 3
ECO 252 Prin of Macroeconomics.....3
MKT 120 Principles of Marketing 3
Business Electives 12

Students are required to take 12 SHC from the following:

BUS 125 Personal Finance.....3
BUS 139 Entrepreneurship I 3
BUS 153 Human Resource Management.....3
BUS 230 Small Business Management.....3
BUS 245 Entrepreneurship II 3
BUS 253 Leadership and Mgt Skills.....3
COE XXX Co-op Work Experience..... 1-6
CTS 130 Spreadsheet.....3
ETR 215 Law for Entrepreneurs 3
ETR 220 Innovation and Creativity 3
ETR 230 Entrepreneur Marketing 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising & Sales Promotion.....3
MKT 221 Consumer Behavior 3
MKT 223 Customer Service.....3

Co-op Option: Qualified students may elect to take up to 6 credit hours of cooperative education in place of 6 hours Business electives.

Total Credit Hours Required 66-67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3
ENG 090 Composition Strategies.....3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080.....8
RED 090 Improved College Reading.....4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration • A25120
Suggested Program Sequence Day

	Class	Lab	Clin/WkExp	Credit
Fall - 1st year				
BUS 110 Introduction to Business	3	0	0	3
BUS 137 Principles of Management	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	3
ENG 111 Expository Writing	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
OR MAT 161 College Algebra	3	0	0	3
and MAT 161A College Algebra Lab	0	2	0	1
Total	13/14	4	0	15/16
Spring - 1st year				
ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
BUS 240 Business Ethics	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
OR ENG 112 or ENG 113				
Total	15	2	0	16
Fall - 2nd year				
ACC 121 Principles in Managerial Acct	3	2	0	4
BUS 116 Business Law II	3	0	0	3
ECO 251 Principles of Microeconomics	3	0	0	3
Business Elective	3	0	0	3
Business Elective	3	0	0	3
Social/Behavioral Science Elective	3	0	0	3
Total	18	2	0	19
Spring - 2nd year				
BUS 285 Business Management Issues	2	2	0	3
COE 110 World of Work	1	0	0	1
ECO 252 Principles of Macroeconomics	3	0	0	3
Business Elective	3	0	0	3
Business Elective	3	0	0	3
Humanities/Fine Arts Elective	3	0	0	3
Total	15	2	0	16
Grand Total	61/62	10	0	66/67

Business Administration • A25120 Suggested Prog Seq Evening

Fall - 1st year				
BUS 110 Introduction to Business	3	0	0	3
CIS 110 Introduction to Computers	2	2	0	3
ENG 111 Expository Writing	3	0	0	3
Total	8	2	0	9
Spring - 1st year				
BUS 137 Principles of Management	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
OR MAT 161 College Algebra	3	0	0	3
and MAT 161A College Algebra Lab	0	2	0	1
Total	5/6	2	0	6/7
Fall - 2nd year				
ACC 120 Prin of Financial Acct	3	2	0	4
BUS 115 Business Law I	3	0	0	3
Total	6	2	0	7
Spring - 2nd year				
BUS 240 Business Ethics	3	0	0	3
MKT 120 Principles of Marketing	3	0	0	3
ENG 114 Prof Research & Reporting	3	0	0	3
OR ENG 112 or ENG 113				
Total	9	0	0	9
Fall - 3rd year				
ACC 121 Principles in Managerial Acct	3	2	0	4
BUS 116 Business Law II	3	0	0	3
Business Elective	3	0	0	3
Total	9	2	0	10
Spring - 3rd year				
ECO 251 Principles of Microeconomics	3	0	0	3
Business Elective	3	0	0	3
Social/Behavioral Science Elective	3	0	0	3
Total	9	0	0	9
Fall - 4th year				
Business Elective	3	0	0	3
Business Elective	3	0	0	3
Humanities/Fine Arts Elective	3	0	0	3
Total	9	0	0	9
Spring - 4th year				
BUS 285 Business Management Issues	2	2	0	3
COE 110 World of Work	1	0	0	1
ECO 252 Principles of Macroeconomics	3	0	0	3
Total	6	2	0	7
Grand Total	61/62	10	0	66/67

Business Administration Diploma Program • D25120

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Expository Writing 3
Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:

ACC 120 Prin of Financial Acct 4
BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
BUS 240 Business Ethics 3
CIS 110 Introduction to Computers 3
COE 110 World of Work 1
ECO 251 Prin of Microeconomics 3
MKT 120 Principles of Marketing 3

Business Electives **6**

Business Diploma Electives - Must be selected from the following list: ACC 121, BUS 116, BUS 125, BUS 153, BUS 230, BUS 253, CTS 130, COE XXX, BUS 139, BUS 245, ECO 252, ETR 220, MKT 123, MKT 220, MKT 223.

Total Credit Hours Required **38**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration • D25120 Suggested Program Sequence

Fall - 1st year					
BUS 110 Introduction to Business	3	0	0	3	
BUS 137 Principles of Management	3	0	0	3	
CIS 110 Introduction to Computers	2	2	0	3	
ENG 111 Expository Writing	3	0	0	3	
Total	11	2	0	12	
Spring - 1st year					
ACC 120 Prin of Financial Acct	3	2	0	4	
BUS 115 Business Law I	3	0	0	3	
BUS 240 Business Ethics	3	0	0	3	
MKT 120 Principles of Marketing	3	0	0	3	
Total	12	2	0	13	
Fall - 2nd year					
ECO 251 Principles of Microeconomics	3	0	0	3	
Business Elective	3	0	0	3	
Business Elective	3	0	0	3	
Total	9	0	0	9	
Spring - 2nd year					
COE 110 World of Work	1	0	0	1	
Social/Behavioral Science Elective	3	0	0	3	
Total	4	0	0	4	
Grand Total	36	4	0	38	

BUSINESS ADMINISTRATION General Cert. Prog. (C2512001)

MAJOR COURSES: **SHC**

BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
MKT 120 Principles of Marketing 3

Total Credit Hours Required **12**

Business Administration - General Certificate (C2512001)

Fall - 1st year					
BUS 110 Intro to Business	3	0	0	3	
MKT 120 Prin of Marketing	3	0	0	3	
Total	6	0	0	6	
Spring - 1st year					
BUS 115 Business Law I	3	0	0	3	
BUS 137 Prin of Management	3	0	0	3	
Total	6	0	0	6	
Grand Total	12	0	0	12	

BUSINESS ADMINISTRATION Advanced Certificate #1 (C2512002)

MAJOR COURSES: **SHC**

BUS 110 Introduction to Business 3
BUS 115 Business Law I 3
BUS 137 Principles of Management 3
ACC 120 Principles of Financial Acct 3

Total Credit Hours Required **12**

Business Administration - Advanced Certificate #1 (C2512002)

Fall - 1st year					
BUS 110 Intro to Business	3	0	0	3	
BUS 137 Prin of Management	3	0	0	3	
Total	6	0	0	6	
Spring - 1st year					
ACC 120 Prin of Financial Acct	3	2	0	4	
BUS 115 Business Law I	3	0	0	3	
Total	6	0	0	7	
Grand Total	12	2	0	13	

BUSINESS ADMINISTRATION Advanced Certificate #2 (C2512003)

MAJOR COURSES: **SHC**

ACC 120 Prin of Financial Acct 4
ACC 121 Principles of Managerial Acct 4
CIS 110 Introduction to Computers 3
ECO 251 Principles of Microeconomics 3
ECO 252 Principles of Macroeconomics 3

Total Credit Hours Required **17**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Business Administration - Advanced Certificate #2 (C251003)

Fall - 1st year					
ACC 120 Prin of Financial Acct	3	2	0	4	
CIS 110 Introduction to Comptuers	2	2	0	3	
ECO 251 Principles of Microeconomics	3	0	0	3	
Total	8	4	0	10	
Spring - 1st year					
ACC 121 Principles of Managerial Acct	3	2	0	4	
ECO 252 Principles of Macroeconomics	3	0	0	3	
Total	6	0	0	7	
Grand Total	14	6	0	17	

BUSINESS ADMINISTRATION Customer Service Certificate Program (C2512004)

MAJOR COURSES: **SHC**

BUS 110 Introduction to Business 3
MKT 120 Principles of Marketing 3
MKT 221 Consumer Behavior 3
MKT 223 Customer Service 3

Total Credit Hours Required **12**

Business Administration - Customer Service Cert (C2512004)

Fall - 1st year					
BUS 110 Intro to Business	3	0	0	3	
MKT 223 Customer Services	3	0	0	3	
Total	6	0	0	6	
Spring - 1st year					
MKT 120 Prin of Marketing	3	0	0	3	
MKT 221 Consumer Behavior	3	0	0	3	
Total	6	0	0	6	
Grand Total	12	0	0	12	

BUSINESS ADMINISTRATION Marketing Certificate Program (C2512005)

MAJOR COURSES: **SHC**

BUS 110 Introduction to Business 3
MKT 120 Principles of Marketing 3
MKT 123 Fundamentals of Selling 3
MKT 220 Advertising & Promotion 3

Total Credit Hours Required **12**

Business Administration - Marketing Certificate (C25120)

Fall - 1st year					
BUS 110 Intro to Business	3	0	0	3	
MKT 123 Fundamentals of Selling	3	0	0	3	
Total	6	0	0	6	
Spring - 1st year					
MKT 120 Prin of Marketing	3	0	0	3	
MKT 220 Advertising & Promotion	3	0	0	3	
Total	6	0	0	6	
Grand Total	12	0	0	12	

COMPUTER ENGINEERING TECHNOLOGY
A.A.S. Program (A40160)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems. Course work includes mathematics, physics, electronics, digital circuits, and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating syst ems, programming languages, Internet configuration and design, and industrial applications. Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:.....

ENG 111 Expository Writing.....3

ENG 114 Prof Research & Reporting.....3

OR

ENG 112 Argument-Based Research.....3

OR

ENG 113 Literature-Based Research.....3

Humanities/Fine Arts:

Elective.....3

Natural Sciences/Mathematics:

MAT 121 Algebra/Trigonometry I.....3

Social/Behavioral Sciences:

Elective.....3

MAJOR COURSES:

CET 111 Computer Upgrade/Repair I.....3

CIS 110 Introduction to Computers.....3

CSC 134 C++ Programming.....3

DFT 117 Technical Drafting.....2

EGR 110 Intro to Engineering Tech.....2

ELC 138 DC Circuit Analysis.....3

ELC 139 AC Circuit Analysis.....3

ELC 229 Applications Project.....2

ELN 131 Semiconductor Applications.....4

ELN 132 Linear IC Applications.....4

ELN 133 Digital Electronics.....4

ELN 233 Microprocessor Systems.....4

MAT 122 Algebra/Trigonometry II.....3

NET 125 Networking Basics.....3

PHY 131 Physics-Mechanics.....4

CET Electives.....6

Students are required to take a minimum of 6 SHC from the following:

CET 211 Computer Upgrade/Repair II.....3

CSC 139 Visual BASIC Prog.....3

CSC 151 JAVA Programming.....3

CTS 130 Spreadsheet.....3

NOS 110 Operating System Concepts.....3

NOS 120 Linux/UNIX Single User.....3

PHY 133 Physics-Sound & Light.....4

WEB 110 Internet/Web Fundamentals.....3

Co-op Option: Qualified students may elect to take 2 credit hours of cooperative education in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 131 & PHY 133. Please see your advisor.

Total Credit Hours Required 68/69

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals.....3

ENG 090 Composition Strategies.....3

MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050.....5

RED 090 Improved College Reading.....4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Engineering Technology • A40160
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
CSC 134	C++ Programming	2	3	0	3
DFT 117	Technical Drafting	1	2	0	2
EGR 110	Intro to Engineering Technology	1	2	0	2
ELC 138	DC Circuit Analysis	2	3	0	3
MAT 121	Algebra/Trigonometry I	2	2	0	3
	Total	10	14	0	16
Spring - 1st year					
ELC 139	AC Circuit Analysis	2	3	0	3
ELN 131	Semiconductor Applications	3	3	0	4
ENG 111	Expository Writing	3	0	0	3
MAT 122	Algebra/Trigonometry II	2	2	0	3
NET 125	Networking Basics	1	4	0	3
	Total	11	12	0	16
Summer - 1st year					
ENG 114	Prof. Research and Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
CET 111	Computer Upgrade/Repair I	2	3	0	3
ELN 132	Linear IC Applications	3	3	0	4
ELN 133	Digital Electronics	3	3	0	4
PHY 131	Physics-Mechanics	3	2	0	4
	Total	11	11	0	15
Spring - 2nd year					
ELC 229	Applications Project	1	3	0	2
ELN 233	Microprocessor Systems	3	3	0	4
	CET Elective	2	3	0	3
	CET Elective	2	3	0	3/4
	Social/Behavioral Science Elective	3	0	0	3
	Total	11	12	0	15/16
	Grand Total	49	49	0	68/69

Computer Engineering Technology • A40160
Suggested Program Evening Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
EGR 110	Intro to Engineering Technology	1	2	0	2
ELC 138	DC Circuit Analysis	3	3	0	4
MAT 121	Algebra/Trigonometry I	2	2	0	3
	Total	6	7	0	9
Spring - 1st year					
ELC 139	AC Circuit Analysis	3	3	0	4
MAT 122	Algebra/Trigonometry II	2	2	0	3
	Total	5	5	0	7
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
Social/Behavioral Science Elective		3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
DFT 117	Technical Drafting	1	2	0	2
ELN 131	Semiconductor Applications	3	3	0	4
	Total	4	5	0	6
Spring - 2nd year					
ELN 132	Linear IC Applications	3	3	0	4
ELN 133	Digital Electronics	3	3	0	4
	Total	6	6	0	8
Summer - 2nd year					
CIS 110	Introduction to Computers	2	2	0	3
ENG 114	Prof Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
Humanities/Fine Arts Elective		3	0	0	3
	Total	8	2	0	9
Fall - 3rd year					
CET 111	Computer Upgrade/Repair I	2	3	0	3
CSC 134	C++ Programming	2	3	0	3
	Total	4	6	0	6
Spring - 3rd year					
ELN 233	Microprocessor Systems	3	3	0	4
NET 125	Networking Basics	1	4	0	3
	Total	4	7	0	7
Fall - 4th year					
PHY 131	Physics-Mechanics	3	2	0	4
CET Elective		2	3	0	3/4
	Total	5	5	0	7/8
Spring - 4th year					
ELC 229	Applications Project	1	3	0	2
CET Elective		2	3	0	3/4
	Total	3	6	0	5/6
	Grand Total	51	49	0	70/71

COMPUTER INFORMATION TECHNOLOGY
A.A.S. Program (A25260)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The core courses are offered mostly online. Minimum time for completion: Day -- five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. The Computer Information Technology curriculum is designed to prepare 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.

GENERAL EDUCATION COURSES: ..... SHC

English/Communications:
ENG 111 Expository Writing 3
ENG 114 Prof Research & Reporting 3
OR
ENG 113 Literature-Based Research 3
Humanities/Fine Arts:
Elective 3
Natural Sciences/Mathematics:
MAT 140 Survey of Mathematics 3
MAT 140A Survey of Mathematics Lab 1
Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:

CIS 110 Introduction to Computers 3
CIS 115 Intro to Prog & Logic 3
COE XXX Co-op Work Experience 2
CTS 115 Info Sys Business Concept 3
CTS 120 Hardware/Software Support 3
CTS 130 Spreadsheet 3
CTS 285 Systems Analysis & Design 3
CTS 289 System Support Project 3
DBA 110 Database Concepts 3
DBA 115 Database Applications 3
DBA 120 Database Programming I 3
NET 125 Networking Basics 3
NOS 110 Operating System Concepts 3
NOS 130 Windows Single User 3
NOS 230 Windows Admin I 3
SEC 110 Security Concepts 3
Programming Elective 3
Students must select one course from the following:
CSC 134 C++ Programming 3
CSC 139 Visual BASIC Prog 3
Program Elective 3
COE XXX Co-op Work Experience 2
CET 211 Computer Upgrade/Repair II 3
CIS 277 Network Design & Imp 3
CSC 234 Adv C++ Programming 3
CSC 239 Adv Visual BASIC Prog 3
DBA 220 Oracle DB Programming I 3
NET 126 Routing Basics 3
NET 175 Wireless Technology 3
NOS 120 Linux/UNIX Single User 3
NOS 231 Windows Admin II 3
NOS 244 Operating Sytem - AS/400 3
SEC 150 Secure Communications 3
SEC 160 Secure Admin I 3

Co-op Option: Qualified students may elect to take up to 3 additional credit hours of cooperative education in place of 3 hours program electives.

Total Credit Hours Required 69

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Information Technology Program Elective Pick List: CIS 277, CSC 234, CSC 239, DBA 220, NET 126, NOS 120, NOS 231, NOS 244, SEC 150, SEC 160, NET 175.

Computer Information Technology • A25260
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
CIS 115	Intro to Prog. & Logic	2	3	0	3
DBA 110	Database Concepts	2	3	0	3
NOS 110	Operating System Concepts	2	3	0	3
	Total	8	11	0	12
Spring - 1st year					
CSC 139/134	Visual Basic OR C++ Programming	2	3	0	3
DBA 115	Database Applications	2	2	0	3
CTS 120	Hardware/Software Support	2	3	0	3
COE XXX	Co-op Work Experience	0	0	20	2
NOS 130	Windows Single User	2	2	0	3
	Total	8	10	20	14
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
MAT 140	Survey of Math	3	0	0	3
MAT 140A	Survey of Math Lab	0	2	0	1
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
CTS 130	Spreadsheet	2	2	0	3
CTS 285	Systems Analysis & Design	3	0	0	3
DBA 120	Database Programming I	2	2	0	3
NET 125	Networking Basics	1	4	0	3
NOS 230	Windows Admin I	2	2	0	3
SEC 110	Security Concepts	2	2	0	3
	Total	12	12	0	18
Spring - 2nd year					
CTS 115	Info Sys Business Concepts	3	0	0	3
CTS 289	System Support Project	1	4	0	3
ENG 114	Prof Research & Reporting	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Program Elective	3	0	0	3
	Total	10	6	0	15
	Grand Total	50	41	20	69

Computer Information Technology • A25260
Suggested Program Sequence Evening

Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
SEC 110	Security Concepts	2	2	0	3
	Total	4	4	0	6
Spring - 1st year					
CTS 115	Info Sys Business Concepts	3	0	0	3
CSC 139/134	Visual Basic OR C++Programming	2	3	0	3
NOS 110	Operating Systems Concepts	2	3	0	3
	Total	7	6	0	9
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
MAT 140	Survey of Math	3	0	0	3
MAT 140A	Survey of Math Lab	0	2	0	1
	Total	6	2	0	7
Fall - 2nd year					
CIS 115	Intro to Programming & Logic	2	3	0	3
CTS 130	Spreadsheet	2	2	0	3
DBA 110	Database Concepts	2	3	0	3
NET 125	Networking Basics	1	4	0	3
	Total	7	12	0	12
Spring - 2nd year					
DBA 115	Advance Database	2	2	0	3
NOS 130	Windows Single User	2	2	0	3
	Total	4	4	0	6
Summer - 2nd year					
ENG 114	Prof Research & Reporting	3	0	0	3
OR	ENG 133 Literature-Based Research	3	0	0	3
COE XXX	Co-op Work Experience	0	0	20	2
	Social/Behavioral Science Elective	3	0	0	3
	Total	6	0	20	8
Fall - 3rd year					
CTS 285	Systems Analysis & Design	3	0	0	3
DBA 120	Database Programming I	2	2	0	3
NOS 230	Windows Admin I	2	2	0	3
	Total	7	4	0	9
Spring - 3rd year					
CTS 289	System Support Project	1	4	0	3
CTS 120	Hardware/Software Support	2	3	0	3
	Total	3	7	0	6
Summer - 3rd year					
	Program Elective	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	3	0	0	6
	Grand Total	51	41	20	69

COMPUTER INFORMATION TECHNOLOGY
Certificate Program (C25260)

MAJOR COURSES:		**SHC**
CIS 110	Introduction to Computers	3
CTS 115	Info Sys Business Concept	3
CTS 130	Spreadsheet	3
DBA 110	Database Concepts	3
DBA 115	Database Applications	3
Total Credit Hours Required		**18**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080	Computing Fundamentals	3
RED 080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Information Technology (C25260)
Certificate Suggested Sequence

Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
CTS 130	Spreadsheet	2	2	0	3
DBA 110	Database Concepts	2	3	0	3
	Total	6	7	0	9
Spring 1st year					
DBA 115	Database Applications	2	2	0	3
CTS 115	Info Sys Business Concept	2	3	0	3
	Total	4	5	0	6
	Grand Total	10	12	0	15

COMPUTER INFORMATION TECHNOLOGY
Database Certificate (C2526001)
Suggested Sequence

MAJOR COURSES:		**SHC**
DBA 110	Database Concepts & Apps	3
DBA 115	Advance Database	3
DBA 120	Database Programming I	3
DBA 220	Oracle DB Programming II	3
Total Credit Hours Required		**12**

Computer Information Technology-Database Certificate (C2526001)
Suggested Sequence

Fall - 1st year					
DBA 110	Database Concepts	2	3	0	3
	Total	2	3	0	3
Spring - 1st year					
DBA 115	Database Applications	2	2	0	3
	Total	2	2	0	3
Fall - 2nd year					
DBA 120	Database Programming I	2	2	0	3
	Total	2	2	0	3
Spring - 2nd year					
DBA 220	Oracle DB Programming II	2	3	0	3
	Total	2	3	0	3
	Grand Total	8	10	0	12

COMPUTER-INTEGRATED MACHINING TECHNOLOGY
A.A.S. Program (A50210)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The The Associate in Applied Science Degree is awarded graduates of this curriculum. 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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Exxpository Writing	3
ENG	114	Prof Research & Reporting	3
OR			
ENG	112	Argument-Based Research	3
OR			
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
Social /Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	111	Basic PC Literacy	2
	OR		
CIS	110	Intro to Computers	3
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	132	Blueprint Reading/Mach II	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAC	143	Machining Appl III	4
MAC	151	Machining Calculations I	2
MAC	222	Adv. CNC Turning	2
MAC	224	Adv. CVC Milling	2
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
MAC	233	Appl in CNC Machining	6
MAC	234	Adv Multi-Axis Machin	3
MAC	241	Jigs and Fixtures I	4
MAC	242	Jigs & Fixtures II	4
MEC	110	Intro to CAD/CAM	2
MEC	142	Physical Metallurgy	2

Co-op Option: Qualified students may elect to take 4 credit hours of cooperative education in place of MAC 242 or MEC 142.

Total Credit Hours Required 70/71

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Funamentals	3
ENG	090	Compositions Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology - A50210
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
MAC	131	Blueprint Reading/Mach. I	1	2	0	2
MAC	141	Machining Applications I (1st 8 Wks)	2	6	0	4
MAC	142	Machining Application II (2nd 8 Wks)	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
CIS	111	Basic PC Literacy	1	2	0	2
	OR	CIS 110 Intro to Computers	2	2	0	3
		Total	8	20	0	14/15
Spring - 1st year						
MAC	122	CNC Turning (1st 4 Wks)	1	3	0	2
MAC	222	Adv. CNC Turning (2nd 4 Wks)	1	3	0	2
MAC	132	Bluepring Reading Mach. II	1	2	0	2
MAC	124	CNC Milling (3rd 4 Wks)	1	3	0	2
MAC	224	Adv. CNC Milling (4th 4 Wks)	1	3	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
		Total	7	16	0	13
Summer - 1st year						
ENG	111	Expository Writing	3	0	0	3
MEC	110	Intro to CAD/CAM	1	2	0	2
MAC	143	Machining Applications III	2	6	0	4
		Total	6	8	0	9
Fall - 2nd year						
MAC	231	CAM:CNC Turning	1	4	0	3
MAC	232	CAM:CNC Milling	1	4	0	3
MAC	241	Jigs and Fixtures I	2	6	0	4
		Humanities/Fine Arts Elective	3	0	0	3
		Total	7	14	0	13
Spring - 2nd year						
MAC	234	Adv Multi-Axis Machining	2	3	0	3
MAC	242	Jigs and Fixtures II	1	9	0	4
MEC	142	Physical Metallurgy	1	2	0	2
		Social/Behavioral Science Elective	3	0	0	3
		Total	7	14	0	12
Summer - 2nd year						
ENG	114	Literature-Based Research (Preferred)	3	0	0	3
	OR	ENG 112 Prof Research & Reporting	3	0	0	3
	OR	ENG 113 Argument-Based Research	3	0	0	3
MAC	233	Appl in CNC Machining	2	12	0	6
		Total	7	4	0	9
		Grand Total	40	84	20	70/71

Computer-Integrated Machining Technology Diploma (D50210)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Exxpository Writing	3

Natural Sciences/Mathematics:

MAT	121	Algebra/Trigonometry I	3

MAJOR COURSES:

CIS	111	Basic PC Literacy	2
	OR		
CIS	110	Intro to Computers	3
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	132	Blueprint Reading/Mach II	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MAC	151	Machining Calculations I	2
MAC	222	Adv. CNC Turning	2
MAC	224	Adv. CVC Milling	2
MEC	110	Intro to CAD/CAM	2
*CIM/Coop Program Elective			6
COE	XXX	Co-op Work Experience	1/4
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
MAC	241	Jigs and Fixtures I	4
MEC	142	Physical Metallurgy	2

Co-op Option: Qualified students may elect to take 4 credit hours of cooperative education in place of Programming electives.

Total Credit Hours Required 38/39

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology - Diploma • D50210
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
CIS	111	Basic PC Literacy	1	2	0	2
OR						
CIS	110	Intro to Computers	2	2	0	3
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	142	Machining Applications II	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
		Program Elective	3	0	0	3
		Total	10	18	0	17/18
Spring - 1st year						
MAC	122	CNC Turning (1st 4 Wks)	1	3	0	2
MAC	222	Adv. CNC Turning (2nd 4 Wks)	1	3	0	2
MAC	132	Blueprint Reading/Mach II	1	2	0	2
MAC	124	CNC Milling (3rd 4 Wks)	1	3	0	2
MAC	224	Adv. CNC Milling (4th 4 Wks)	1	3	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
		Program Elective	3	0	0	3
		Total	10	16	0	16
Summer - 1st year						
ENG	111	Expository Writing	3	0	0	3
MEC	110	Intro to CAD/CAM	1	2	0	2
		Total	4	2	0	5
		Grand Total	24	36	0	38/39

Computer-Integrated Machining Technology - Diploma • D50210
Suggested Program Sequence Evening

Fall - 1st year						
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
CIS	111	Basic PC Literacy	1	2	0	2
OR						
CIS	110	Intro to Computers	2	2	0	3
		Total	5/6	12	0	10/11
Spring - 1st year						
MAC	132	Blueprint Reading/Mach II	1	2	0	2
MAC	142	Machining Applications II	2	6	0	4
MEC	110	Intro to CAD/CAM	1	2	0	2
		Total	4	10	0	8
Fall - 2nd year						
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
MAT	121	Algebra/Trigonometry I	2	2	0	3
		Program Elective	3	0	0	3
		Total	7	8	0	10
Spring - 2nd year						
MAC	222	Adv. CNC Turning	1	3	0	2
MAC	224	Adv. CNC Milling	1	3	0	2
		Program Elective	3	0	0	3
		Total	5	6	0	7
Summer - 2nd year						
ENG	111	Expository Writing	3	0	0	3
		Total	3	0	0	3
		Grand Total	24/25	36	0	38/39

Computer-Integrated Machining Technology Cert. Prog. (C50210)

MAJOR COURSES:

MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach I	2
MAC	141	Machining Applications I	4
MAC	151	Machining Calculations I	2
MEC	110	Intro to CAD/CAM	2

Total Credit Hours Required 14

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
MAT	DMA 010, DMA 020, 030		3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer-Integrated Machining Technology Certificate - Suggest Program Sequence Day (C50210)

Fall - 1st year						
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
MEC	110	Intro to CAD/CAM	1	2	0	2
		Grand Total	7	18	0	14

Computer-Integrated Machining Technology Certificate - Suggest Program Sequence Evening (C50210)

Fall - 1st year						
MAC	131	Blueprint Reading/Mach I	1	2	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	151	Machining Calculations I	1	2	0	2
		Total	4	10	0	8
Spring - 1st year						
MEC	110	Intro to CAD/CAM	1	2	0	2
MAC	122	CNC Turning	1	3	0	2
MAC	124	CNC Milling	1	3	0	2
		Total	3	8	0	6
		Grand Total	7	18	0	14

COMPUTER PROGRAMMING
A.A.S. Program (A25130)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The core courses are offered mostly online. Minimum time for completion: Day -- five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. 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.

GENERAL EDUCATION COURSES:.....SHC

English/Communications:

ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	113	Literature-Based Research	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1

Social/Behavioral Sciences:

Elective			3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CSC	138	RPG Programming	3
CSC	139	Visual BASIC Prog	3
CSC	141	Visual C++ Prog	3
CSC	238	Adv RPG Programming	3
CSC	239	Adv Visual BASIC Prog	3
CSC	289	Programming Capstone Project	3
CTS	115	Info Sys Business Concept	3
CTS	130	Spreadsheet	3
CTS	285	Systems Analysis & Design	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
NOS	244	Operating System - AS/400	3
SEC	110	Security Concepts	3

Programming Elective 3

Students must select 3 SHC from the following courses:

CSC	151	JAVA Programming	3
DBA	115	Database Applications	3
DBA	120	Database Programming	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3

Programming Elective or Co-op 1-3

Students are required to take one (1) course from the following:

COE	XXX	Co-op Work Experience	1-3
CSC	151	JAVA Programming	3
DBA	115	Database Applications	3
DBA	120	Database Programming	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3

Co-op Option: Qualified students may elect to take 1-3 credit hours of cooperative education in place of Programming elective.

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Total Credit Hours Required 69-71

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Programming • A25130
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
CIS 110	Introduction to Computers	2	2	0	3
CIS 115	Intro to Prog & Logic	2	3	0	3
DBA 110	Database Concepts & Apps	2	3	0	3
NET 125	Networking Basics	1	4	0	3
	Total	8	12	0	13
Spring - 1st year					
CSC 141	Visual C++ Prog	2	3	0	3
CTS 115	Info Sys Business Concepts	3	0	0	3
NOS 110	Operating Systems Concepts	2	3	0	3
NOS 244	Operating Systems - AS400	2	2	0	3
	Program Elective	3	0	0	3
	Total	12	8	0	15
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
MAT 140	Survey of Math	3	0	0	3
MAT 140A	Survey of Math Lab	0	2	0	1
	Humanities/Fine Arts Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
CTS 130	Spreadsheet	2	2	0	3
CTS 285	Systems Analysis & Design	3	0	0	3
CSC 138	RPG Programming	2	3	0	3
CSC 139	Visual Basic Programming	2	3	0	3
SEC 110	Security Concepts	2	2	0	3
	Total	11	7	0	15
Spring - 2nd year					
ENG 114	Prof Research & Reporting	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
CSC 289	Programming Capstone Project	1	4	0	3
CSC 238	Adv RPG Programming	2	3	0	3
CSC 239	Adv Visual Basic Programming	2	3	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Co-op or Program Elective	0	0	0	1/3
	Total	11	10	0	16/18
	Grand Total	51	42	0	69/71

COMPUTER PROGRAMMING - Cert. Prog. (C25130)

MAJOR COURSES:.....SHC

CIS	115	Intro to Prog & Logic	3
CSC	139	Visual BASIC Prog	3
CSC	141	Visual C++ Prog	3
CSC	239	Adv Visual Basic Prog	3

Total Credit Hours Required 12

DEVELOPMENTAL COURSE REQUIREMENTS*

MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Programming - Cert. Suggested Sequence (C25130)

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 115	Intro to Prog & Logic	2	3	0	3
	Total	2	3	0	3
Spring - 1st year					
CSC 139	Visual BASIC Programming	2	3	0	3
CSC 141	Visual C++ Programming	2	3	0	3
	Total	4	6	0	6
Spring - 2nd year					
CSC 239	Adv Visual BASIC Programming	2	3	0	3
	Total	2	3	0	3
	Grand Total	8	12	0	12

COSMETOLOGY
Diploma Program (D55140)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. All courses, state hours, and state projects must be completed before graduation. Minimum time for completion: four semesters full-time attendance; nine semesters part-time attendance. The Diploma is awarded graduates of this curriculum.

The Cosmetology curriculum is designed to provide comptency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which 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, spas, nail salons, and related businesses. General Education Courses, including above developmental courses, English, Psychology, and Computer Literacy will be taught on the CVCC campus. Instruction and course materials are available in Spanish.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	102	Applied Communications II	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
COS	111	Cosmetology Concepts I	4
OR			
COS	111AB	Cosmetology Concepts I-AB	2
COS	111BB	Cosmetology Concepts I-BB	2
COS	112	Salon I	8
OR			
COS	112AB	Salon I-AB	4
COS	112BB	Salon I-BB	4
COS	113	Cosmetology Concepts II	4
OR			
COS	113AB	Cosmetology Concepts II-AB	2
COS	113BB	Cosmetology Concepts II-BB	2
COS	114	Salon II	8
OR			
COS	114AB	Salon II-AB	4
COS	114BB	Salon II-BB	4
COS	115	Cosmetology Concepts III	4
OR			
COS	115AB	Cosmetology Concepts III-AB	2
COS	115BB	Cosmetology Concepts III-BB	2
COS	116	Salon III	4
OR			
COS	116AB	Salon III-AB	2
COS	116BB	Salon III-BB	2
COS	117	Cosmetology Concepts IV	2
OR			
COS	117AB	Cosmetology Concepts IV-AB	1
COS	117BB	Cosmetology Concepts IV-BB	1
COS	118	Salon IV	7
OR			
COS	118AB	Salon IV-AB	4
COS	118BB	Salon IV-BB	3

Total Credit Hours Required 47

DEVELOPMENTAL COURSE REQUIREMENTS*

RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Cosmetology - Diploma • D55140
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
COS 111	Cosmetology Concepts I		4	0	0	4
COS 112	Salon I		0	24	0	8
		Total	5	24	0	12
Spring - 1st year						
COS 113	Cosmetology Concepts II		4	0	0	4
COS 114	Salon II		0	24	0	8
ENG 102	Applied Communication II		3	0	0	3
		Total	7	24	0	15
Summer - 1st year						
COS 115	Cosmetology Concepts III		4	0	0	4
COS 116	Salon III		0	12	0	4
		Total	4	12	0	8
Fall - 2nd year						
COS 117	Cosmetology Concepts IV		2	0	0	2
COS 118	Salon IV		0	21	0	7
PSY 150	General Psychology		3	0	0	3
		Total	5	21	0	12
		Grand Total	21	81	0	47

Cosmetology - Diploma/Part-Time • D55140
Suggested Program Sequence Evening

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
COS 111AB	Cosmetology Concepts I-AB		2	0	0	2
COS 112AB	Salon I-AB		0	12	0	4
		Total	2	12	0	6
Spring - 1st year						
COS 111BB	Cosmetology Concepts I-BB		2	0	0	2
COS 112BB	Salon I-BB		0	12	0	4
ENG 102	Applied Communications II		3	0	0	3
		Total	5	12	0	9
Summer - 1st year						
PSY 150	General Psychology		3	0	0	3
		Total	3	0	0	3
Fall - 2nd year						
COS 113AB	Cosmetology Concepts II-AB		2	0	0	2
COS 114AB	Salon II-AB		0	12	0	4
		Total	2	12	0	6
Spring - 2nd year						
COS 113BB	Cosmetology Concepts II-BB		2	0	0	2
COS 114BB	Salon II-BB		0	12	0	4
		Total	3	12	0	6
Fall - 3rd year						
COS 115AB	Cosmetology Concepts III-BB		2	0	0	2
COS 116AB	Salon III-AB		0	6	0	2
		Total	2	6	0	4
Spring - 3rd year						
COS 115BB	Cosmetology Concepts III-BB		2	0	0	2
COS 116BB	Salon III-BB		0	6	0	2
		Total	2	6	0	4
Fall - 4th year						
COS 117AB	Cosmetology Concepts IV-AB		1	0	0	1
COS 118AB	Salon IV-AB		0	12	0	4
		Total	1	12	0	5
Spring - 4th year						
COS 117BB	Cosmetology Concepts IV-BB		1	0	0	1
COS 118BB	Salon IV-BB		0	9	0	3
		Total	1	9	0	4
		Grand Total	21	81	0	47

CRIMINAL JUSTICE TECHNOLOGY
A.A.S. Program (A55180)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day--five semesters full-time attendance; Evening--ten semesters part-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

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.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Expository Writing 3

ENG 113 Literature-Based Research 3
OR
ENG 114 Prof Research & Reporting 3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 115 Mathematical Models 3
OR
MAT 140 Survey of Mathematics 3
MAT 140A Survey of Mathematics Lab 1

Social/Behavioral Sciences:
PSY 150 General Psychology 3

MAJOR COURSES:

CCT 110 Intro to Cyber Crime 3
OR
CIS 110 Introduction to Computers 3
CJC 111 Intro to Criminal Justice 3
CJC 112 Criminology 3
CJC 113 Juvenile Justice 3
CJC 121 Law Enforcement Operations 3
CJC 131 Criminal Law 3
CJC 132 Court Procedure & Evidence 3
CJC 141 Corrections 3
CJC 151 Intro to Loss Prevention 3
CJC 160 Terrorism: Underlying Issues 3
CJC 212 Ethics & Comm Relations 3
CJC 215 Organization & Administration 3
CJC 221 Investigative Principles 4
CJC 225 Crisis Intervention 3
CJC 231 Constitutional Law 3
SOC 210 Introduction to Sociology 3
Program Elective or Co-op 3

CCT 112 Ethics & High Technology 3
CCT 121 Computer Crime Invest 4
CIS 110 Introduction to Computers 3
CJC 114 Investigative Photography 2
CJC 222 Criminalistics 3
COE XXX Co-op Work Experience 3
HIS 111 World Civilizations I 3
HIS 112 World Civilizations II 3
HIS 121 Western Civilization I 3
HIS 122 Western Civilization II 3
POL 120 American Government 3
POL 130 State & Local Government 3
PSY 231 Forensic Psychology 3
PSY 241 Developmental Psych 3
PSY 281 Abnormal Psychology 3
SOC 220 Social Problems 3

Con't.

Co-op Option: Qualified students may elect to take 3 credit hours of cooperative education in place of 3 hours Program electives.

Credits applied for prior completion of B.L.E.T.

Total Credit Hours Required 67-68

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology • A55180
Suggested Program Sequence Day

	Class	Lab	Clin/WkExp	Credit
Fall - 1st year				
CJC 111 Introduction to Criminal Justice	3	0	0	3
CJC 131 Criminal Law	3	0	0	3
CJC 132 Court Procedures & Evidence	3	0	0	3
CJC 160 Terrorism: Underlying Issues	3	0	0	3
ENG 111 Expository Writing	3	0	0	3
Total	15	0	0	15
Spring - 1st year				
CJC 112 Criminology	3	0	0	3
CJC 121 Law Enforcement Operations	3	0	0	3
CJC 221 Investigative Principles	3	2	0	4
CCT 110 Intro to Cyber Crime	3	0	0	3
OR CIS 110 Introduction to Computers	2	2	0	3
Total	11/12	4	0	13
Summer - 1st year				
ENG 113 Literature-Based Research	3	0	0	3
OR ENG 114 Prof. Research & Reporting	3	0	0	3
MAT 115 Mathematical Models	2	2	0	3
OR MAT 140 Survey of Mathematics	3	0	0	3
and MAT 140A Survey of Mathematics Lab	0	2	0	1
PSY 150 General Psychology	3	0	0	3
Total	8/9	2	0	9/10
Fall - 2nd year				
CJC 113 Juvenile Justice	3	0	0	3
CJC 215 Organization & Administration	3	0	0	3
CJC 231 Constitutional Law	3	0	0	3
SOC 210 Introduction to Sociology	3	0	0	3
Humanities Elective	3	0	0	3
Total	15	0	0	15
Spring - 2nd year				
CJC 141 Corrections	3	0	0	3
CJC 151 Introduction to Loss Prevention	3	0	0	3
CJC 212 Ethics & Comm. Relations	3	0	0	3
CJC 225 Crisis Intervention	3	0	0	3
Program Elective OR Co-Op				3
Total	15	0	0	15
Grand Total	64/66	6	0	67/68

Criminal Justice Technology • A55180
Suggested Prog Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Introduction to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	9	0	0	9
Spring - 1st year					
CJC 121	Law Enforcement Operations	3	0	0	3
CCT 110	Intro to Cyber Crime	3	0	0	3
	OR CIS 110 Introduction to Computers	2	2	0	3
	Total	5/6	2	0	6
Summer - 1st year					
MAT 115	Mathematical Models	2	2	0	3
	OR MAT 140 Survey of Mathematics	3	0	0	3
	and MAT 140A Survey of Mathematics Lab	0	2	0	1
PSY 150	General Psychology	3	0	0	3
	Total	5/6	2	0	6/7
Fall - 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
SOC 210	Introduction to Sociology	3	0	0	3
	Total	6	0	0	6
Spring - 2nd year					
CJC 141	Corrections	3	0	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
	Humanities Elective	3	0	0	3
	Total	9	0	0	9
Summer - 2nd year					
ENG 113	Literature-Based Research	3	0	0	3
	OR ENG 114 Prof. Research & Reporting	3	0	0	3
	Total	3	0	0	3
Fall - 3rd year					
CJC 132	Court Procedures & Evidence	3	0	0	3
CJC 160	Terrorism: Underlying Issues	3	0	0	3
	Program Elective OR Co-Op Elective	3	0	0	3
	Total	9	0	0	9
Spring - 3rd year					
CJC 112	Criminology	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
	Total	6	2	0	7
Fall - 4th year					
CJC 215	Organization & Administration	3	0	0	3
CJC 231	Constitutional Law	3	0	0	3
	Total	6	0	0	6
Spring - 4th year					
CJC 151	Introduction to Loss Prevention	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	6	0	0	6
	Grand Total	64/66	6	0	67/68

CRIMINAL JUSTICE TECHNOLOGY
Law Enforcement Certificate Prog (C5518001)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 121 Law Enforcement Operations	3
CJC 132 Court Procedure & Evidence	3
CJC 212 Ethics & Comm Relations	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Criminal Justice Technology
Law Enforcement Cert. (C5518001) Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 132	Court Procedure & Evidence	3	0	0	3
	Total	6	0	0	6
Spring - 1st year					
CJC 121	Law Enforcement Operations	3	0	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	9	0	0	9
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Correctional -- Probation & Parole Certificate Prog (C5518002)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 141 Corrections	3
CJC 212 Ethics & Comm Relations	3
CJC 215 Organization & Administration	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Correctional -- Probation & Parole
Cert. Suggested Sequence (C5518002)

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	6	0	0	6
Spring - 2nd year					
CJC 141	Corrections	3	0	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
CJC 225	Crisis Intervention	3	0	0	3
	Total	9	0	0	9
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Judicial -- Court Administrator Certificate Prog (C5518004)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 131 Criminal Law	3
CJC 132 Court Procedure & Evidence	3
CJC 215 Organization & Administration	3
CJC 225 Crisis Intervention	3
Total Credit Hours Required	**15**

Judicial -- Court Administrator - Cert. Suggested Sequence (C5518004)

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 132	Court Procedure & Evidence	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	12	0	0	12
Spring - 1st year					
CJC 225	Crisis Intervention	3	0	0	3
	Total	3	0	0	3
	Grand Total	15	0	0	15

CRIMINAL JUSTICE TECHNOLOGY
Retail -- Industrial Security Certificate Prog (C5518003)

MAJOR COURSES:	**SHC**
CJC 111 Intro to Criminal Justice	3
CJC 131 Criminal Law	3
CJC 151 Intro to Loss Prevention	3
CJC 215 Organization & Administration	3
CJC 221 Investigative Principles	4
Total Credit Hours Required	**16**

Retail -- Industrial Security - Cert. Suggested Sequence (C551803)

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Intro to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 215	Organization & Administration	3	0	0	3
	Total	9	0	0	9
Spring - 1st year					
CJC 221	Investigative Principles	3	2	0	4
CJC 151	Intro to Loss Prevention	3	0	0	3
	Total	6	2	0	7
	Grand Total	15	2	0	16

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration
A.A.S. Program (A5518A)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day--five semesters full-time attendance; Evening--ten semesters part-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
CCT	110	Intro to Cyber Crime	3
OR			
CIS	110	Introduction to Computers	3
CJC	111	Intro to Criminal Justice	3
CJC	112	Criminology	3
CJC	113	Juvenile Justice	3
CJC	121	Law Enforcement Operations	3
CJC	131	Criminal Law	3
CJC	132	Court Procedure & Evidence	3
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	212	Ethics & Comm Relations	3
CJC	221	Investigative Principles	4
CJC	222	Criminalistics	3
CJC	231	Constitutional Law	3
CJC	245	Friction Ridge Analysis	3
CJC	246	Adv Friction Ridge Analys	3
CJC	250	Forensic Biology I	3
OR			
CJC	251	Forensic Chemistry I	4
PSY	231	Forensic Psychology	3
Criminal Justice Elective			1-4
Students must choose one (1) of the following:			
CJC	114	Investigative Photography	2
COE	XXX	Co-Op Work Experience	1-4
Total Credit Hours Required			**68-71**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology
Latent Evidence Concentration • A5518A
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Introduction to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
CJC 132	Court Procedures & Evidence	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	12	0	0	12
Spring - 1st year					
CJC 112	Criminology	3	0	0	3
CJC 121	Law Enforcement Operations	3	0	0	3
CJC 221	Investigative Principles	3	2	0	4
CCT 110	Intro to Cyber Crime	3	0	0	3
OR CIS 110	Introduction to Computers	2	2	0	3
	Total	11/12	4	0	13
Summer - 1st year					
ENG 113	Literature-Based Research	3	0	0	3
OR ENG 114	Prof. Research & Reporting	3	0	0	3
MAT 115	Mathematical Models	3	0	0	3
OR	MAT 140 Survey of Mathematics	3	0	0	3
and	MAT 140A Survey of Mathematics Lab	0	2	0	1
PSY 150	General Psychology	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	12	2	0	12/13
Fall - 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
CJC 146	Trace Evidence	2	3	0	3
CJC 231	Constitutional Law	3	0	0	3
CJC 245	Friction Ridge Analysis	2	3	0	3
	Criminal Justice Elective				1/4
	Total	10	6	0	13/16
Spring - 2nd year					
CJC 222	Criminalistics	3	0	0	3
CJC 144	Crime Scene Processing	2	3	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
CJC 246	Advance Friction Ridge Analysis	2	3	0	3
CJC 250	Forensic Biology	2	2	0	3
OR CJC 251	Forensic Chemistry	3	2	0	4
PSY 231	Forensic Psychology	3	0	0	3
	Total	15/16	10	0	18/19
	Grand Total	60/62	22	0	68/71

Criminal Justice Technology
Latent Evidence Concentration • A5518A
Suggested Program Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Introduction to Criminal Justice	3	0	0	3
CJC 131	Criminal Law	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	9	0	0	9
Spring - 1st year					
CJC 121	Law Enforcement Operations	3	0	0	3
CCT 110	Intro to Cyber Crime	3	0	0	3
	OR CIS 110 Introduction to Computers	2	2	0	3
	Total	5/6	2	0	6
Summer - 1st year					
MAT 115	Mathematical Models	3	0	0	3
	OR Mat 140 Survey of Mathematics	3	0	0	3
	and MAT 140A Survey of Mathematics Lab	0	2	0	1
PSY 150	General Psychology	3	0	0	3
	Total	6	2	0	6/7
Fall - 2nd year					
CJC 113	Juvenile Justice	3	0	0	3
CJC 146	Trace Evidence	2	3	0	3
	Criminal Justice Elective				1/4
	Total	5	3	0	7/10
Spring - 2nd year					
CJC 144	Investigative Principle	2	3	0	3
CJC 212	Ethics & Comm. Relations	3	0	0	3
PSY 231	Forensic Psychology	3	0	0	3
	Total	8	3	0	9
Summer - 2nd year					
ENG 113	Literature - Based Research	3	0	0	3
	OR ENG 114 Prof. Research & Reporting	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	6	0	0	6
Fall - 3rd year					
CJC 132	Court Procedures & Evidence	3	0	0	3
	Total	3	0	0	3
Spring - 3rd year					
CJC 221	Investigative Principles	3	2	0	4
CJC 112	Criminology	3	0	0	3
	Total	6	2	0	7
Fall - 4th year					
CJC 231	Constitutional Law	3	0	0	3
CJC 245	Friction Ridge Analysis	2	3	0	3
	Total	5	3	0	6
Spring - 4th year					
CJC 222	Criminalistics	3	0	0	3
CJC 246	Advance Friction Ridge Analysis	2	3	0	3
CJC 250	Forensic Biology	2	2	0	3
	OR CJC 251 Forensic Chemistry	3	2	0	4
	Total	7/8	5	0	9/10
	Grand Total	60/62	17	0	68/73

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration Crime Scene Investigation
Certificate Program (C5518A01)

MAJOR COURSES:			SHC
CJC	111	Intro to Criminal Justice	3
CJC	114	Investigative Photography	2
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	221	Investigative Principles	4
Total Credit Hours Required			**15**

CRIMINAL JUSTICE TECHNOLOGY
Latent Evidence Concentration Crime Scene Investigation
Cert. Prog. Suggested Sequence (C5518A01)

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CJC 111	Introduction to Criminal Justice	3	0	0	3
CJC 146	Trace Evidence	2	3	0	3
CJC 114	Investigative Photography	1	2	0	2
	Total	6	5	0	8
Spring - 1st year					
CJC 221	Investigative Principles	3	2	0	4
CJC 144	Crime Scene Processing	2	3	0	3
	Total	5	5	0	7
	Grand Total	11	10	0	15

CYBER CRIME TECHNOLOGY
A.A.S. Program (A55210)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day--five semesters full-time attendance; Evening--ten semesters part-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. This curriculum will prepare students to enter the field of computer crime investigations and private security. Students completing this curriculum will be capable of investigating computer crimes, properly seize and recover computer evidence and aid in the prosecution of cyber criminals. Course work in this curriculum will include a division of work in the disciplines of criminal justice and computer information systems. Additionally, students will be required to take specific cyber crime classes. Graduates should qualify to become computer crime investigators for local or state criminal justice agencies. Also, these graduates should be competent to serve as computer security specialists or consultants with private business.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
CCT	110	Intro to Cyber Crime	3
CCT	112	Ethics & High Technology	3
CCT	121	Computer Crime Invest	4
CCT	231	Technology Crimes & Law	3
CCT	240	Data Recovery Techniques	3
CCT	250	Network Vulnerabilities I	3
CCT	285	Trends in Cyber Crime	3
CCT	289	Capstone Project	3
CIS	110	Introduction to Computers	3
CJC	111	Intro to Criminal Justice	3
CJC	112	Criminology	3
CJC	131	Criminal Law	3
CTS	120	Hardware/Software Support	3
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
SEC	110	Security Concepts	3
Total Credit Hours Required			**64-65**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

CYBER CRIME TECHNOLOGY
Cyber Crime & Computer Security Cert. Prog. (C5521001)

MAJOR COURSES:			**SHC**
CCT	110	Intro to Cyber Crime	3
CCT	112	Ethics & High Technology	3
CCT	121	Computer Crime Invest	4
CCT	231	Technology Crimes & Law	3
CCT	240	Data Recovery Techniques	3
Total Credit Hours Required			**16**

Cyber Crime Technology
Cyber Crime & Computer Security(C5521001)Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
CCT	110	Intro to Cyber Crime	3	0	0	3
CCT	112	Ethics & High Technology	3	0	0	3
CCT	231	Technology Crimes & Law	3	0	0	3
CCT	240	Data Recovery Techniques	3	0	0	3
		Total	12	0	0	12
Spring - 1st year						
CCT	121	Computer Crime Investigations	3	2	0	4
		Total	3	2	0	4
		Grand Total	15	2	0	16

Cyber Crime Technology • A55210
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
CJC	111	Introduction to Criminal Justice	3	0	0	3
CJC	131	Criminal Law	3	0	0	3
CCT	110	Introduction to Cyber Crime	3	0	0	3
CCT	112	Ethics & High Technology	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
		Total	14	2	0	15
Spring - 1st year						
CJC	112	Criminology	3	0	0	3
CCT	121	Computer Crime Investigations	3	2	0	4
NOS	110	Operating System Concepts	2	3	0	3
CTS	120	Hardware/Software Support	2	3	0	3
NET	125	Networking Basics	1	4	0	3
		Total	11	12	0	16
Summer - 1st year						
ENG	111	Expository Writing	3	0	0	3
MAT	115	Mathematical Models	2	2	0	3
		OR MAT 140 Survey of Mathematics	3	0	0	3
		and MAT 140A Survey of Mathematics Lab	0	2	0	1
PSY	150	General Psychology	3	0	0	3
		Total	8/9	2	0	9/10
Fall - 2nd year						
CCT	240	Data Recovery Techniques	2	3	0	3
CCT	250	Networking Vulnerabilities I	2	2	0	3
CCT	231	Technology Crimes & Law	3	0	0	3
SEC	110	Security Concepts	2	2	0	3
		Total	12	7	0	12
Spring - 2nd year						
CCT	285	Trends in Cyber Crime	2	2	0	3
CCT	289	Capstone Project	1	6	0	3
ENG	113	Literature - Based Research	3	0	0	3
		OR ENG 114 Prof. Research & Reporting	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	9	8	0	12
		Grand Total	51/52	31	0	64/65

Cyber Crime Technology • A55210 Suggested Prog Seq Evening

Fall - 1st year						
CJC	111	Introduction to Criminal Justice	3	0	0	3
CCT	110	Introduction to Cyber Crime	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
		Total	8	2	0	9
Spring - 1st year						
CCT	121	Computer Crime Investigations	3	2	0	4
NOS	110	Operating Systems Concepts	2	3	0	3
NET	125	Networking Basics	2	2	0	3
		Total	7	7	0	10
Summer - 1st year						
ENG	111	Expository Writing	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	6	0	0	6
Fall - 2nd year						
CCT	240	Data Recovery Techniques	2	3	0	3
CCT	250	Networking Vulnerabilities I	1	4	0	3
		Total	3	7	0	6
Spring - 2nd year						
ENG	113	Literature - Based Research	3	0	0	3
		OR ENG 114 Prof. Research & Reporting	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
Summer - 2nd year						
MAT	115	Mathematicals Models	2	2	0	3
		OR MAT 140 Survey of Mathematics	3	0	0	3
		and MAT 140A Survey of Mathematics Lab	0	2	0	1
		Total	2/3	2	0	3/4
Fall - 3rd year						
CJC	131	Criminal Law	3	0	0	3
CCT	112	Ethics & High Technology	3	0	0	3
		Total	6	0	0	6
Spring - 3rd year						
CJC	112	Criminology	3	0	0	3
CTS	120	Hardware/Software Support	2	3	0	3
		Total	5	3	0	6
Fall - 4th year						
CCT	231	Technology Crimes & Law	3	0	0	3
SEC	110	Security Concepts	2	2	0	3
		Total	5	2	0	6
Spring - 4th year						
CCT	285	Trends in Cyber Crime	2	2	0	3
CCT	289	Capstone Project	1	6	0	3
		Total	3	8	0	6
		Grand Total	51/52	31	0	64/65

DENTAL HYGIENE
A.A.S. Program (A45260)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Some general education courses are offered at night. Minimum time for completion: seven semesters. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Dental Hygiene curriculum provides individuals with the knowledge and skills to assess, plan, implement, and evaluate dental hygiene care for individuals and the community. Students will learn to prepare the operatory, collect patient histories, note abnormalities, plan care, teach oral hygiene, debride and polish teeth, expose radiographs, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care. Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and educational institutions.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
COM	110	Introduction to Communication	3
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
CHM	130	Gen, Org, & Biochemistry	3
CHM	130A	Gen, Org, & Biochemistry Lab	1
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
BIO	175	General Microbiology	3
DEN	110	Orofacial Anatomy	3
DEN	111	Infection/Hazard Control	2
DEN	112	Dental Radiography	3
DEN	120	Dental Hyg Preclinic Lec	2
DEN	121	Dental Hygiene Precl Lab	2
DEN	123	Nutrition/Dental Health	2
DEN	124	Periodontology	2
DEN	130	Dental Hygiene Theory I	2
DEN	131	Dental Hygiene Clinic I	3
DEN	140	Dental Hygiene Theory II	1
DEN	141	Dental Hygiene Clinic II	2
DEN	220	Dental Hygiene Theory III	2
DEN	221	Dental Hygiene Clinic III	4
DEN	222	General & Oral Pathology	2
DEN	223	Dental Pharmacology	2
DEN	224	Materials and Procedures	2
DEN	230	Dental Hygiene Theory IV	1
DEN	231	Dental Hygiene Clinic IV	4
DEN	232	Community Dental Health	3
DEN	233	Professional Development	2
Total Credit Hours Required			**76**

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Background Check - A criminal background check is required for students to participate in external rotations and for North Carolina Dental Hygiene Licensure.

Dental Hygiene • A45260
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Spring - 1st year						
BIO	163	Basic Anatomy and Physiology	4	2	0	5
CHM	130	General, Organic & Biochemistry	3	0	0	3
CHM	130A	General, Organic & Biochemistry Lab	0	2	0	1
ENG	111	Expository Writing	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	13	4	0	15
Fall - 1st year						
BIO	175	General Microbiology	2	2	0	3
COM	110	Intro to Communication	3	0	0	3
ENG	114	Prof Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Argument-Based Research	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
		Total	11	2	0	12

Note: General Education Course Requirements- Applicants must have compeleted ALL General Education courses required for the program prior to the Dental Hygiene Program application deadline **(March 15)**. Students must complete BIO 163, BIO 175, CHM 130 & CHM 130A, COM 110, ENG 111, ENG 114, PSY 150, & SOC 210. Grades lower than "C" will not be accepted. Students must also be accepted into the Dental Hygiene program prior to taking DEN courses.

Fall - 2nd year						
DEN	110	Orofacial Anatomy	2	2	0	3
DEN	111	Infection/Hazard Control	2	0	0	2
DEN	120	DH Preclinic Lecture	2	0	0	2
DEN	121	DH Preclinic Lab	0	6	0	2
		Humanities/Fine Arts Elective	3	0	0	3
		Total	9	8	0	12
Spring - 2nd year						
DEN	112	Dental Radiography	2	3	0	3
DEN	222	General & Oral Pathology	2	0	0	2
DEN	130	DH Theory I	2	0	0	2
DEN	131	DH Clinic I	0	0	9	3
DEN	123	Nutrition/Dental Health	2	0	0	2
		Total	8	3	9	12
Summer - 2nd year						
DEN	124	Periodontology	2	0	0	2
DEN	140	DH Theory II	1	0	0	1
DEN	141	DH Clinic II	0	0	6	2
		Total	3	0	6	5
Fall - 3rd year						
DEN	220	DH Theory III	2	0	0	2
DEN	221	DH Clinic III	0	0	12	4
DEN	223	Dental Pharmacology	2	0	0	2
DEN	232	Community Dental Health	2	0	3	3
		Total	6	0	15	11
Spring - 3rd year						
DEN	224	Materials and Procedures	1	3	0	2
DEN	230	DH Theory IV	1	0	0	1
DEN	231	DH Clinic IV	0	0	12	4
DEN	233	Professional Development	2	0	0	2
		Total	4	3	12	9
		Grand Total	54	20	42	76

EARLY CHILDHOOD EDUCATION
A.A.S. Program (A55220)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day -- six semesters full-time attendance; Evening -- ten semesters part-time attendance. An Associate in Applied Science Degree is awarded graduates of the Early Childhood Education Degree curriculum. A Diploma is awarded students completing the diploma curriculum. A Certificate is awarded students completing the certificate curriculum. Special Admissions Requirements for Early Childhood Education Programs. In addition to the general procedures to apply for admission to a curriculum program of study, applicants for the Early Childhood Education program must complete other procedures. CVCC's Early Childhood Education program requires completion of educational experiences in childcare facilities and/or public school settings. These settings require students to undergo criminal background checks. If a student is excluded from an educational setting as a result of a background check, the student may be asked to withdraw from the program. Some settings may also require additional vaccinations and/or health examinations. Admission into CVCC's Early Childhood Education program may be contingent upon receipt of a CVCC medical form documenting that the applicant possesses satisfactory physical and mental health. Facilities for providing health care services are not available on campus.

The Early Childhood Education 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 child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
COM 110 Introduction to Communication....3
ENG 111 Expository Writing....3
ENG 113 Literature-Based Research....3
OR ENG 114 Pro Research & Reporting....3
Humanities/Fine Arts:
Elective....3
Natural Sciences/Mathematics:
Elective....3/4
Social/Behavioral Science:
Elective....3

MAJOR COURSES:
EDU 119 Intro to Early Child Educ....4
EDU 131 Child, Family, & Commun....3
EDU 144 Child Development I....3
EDU 145 Child Development II....3
OR
PSY 244 Child Development I....3
PSY 245 Child Development II....3
EDU 146 Child Guidance....3
EDU 151 Creative Activities....3
EDU 153 Health, Safety, & Nutrit....3
EDU 221 Children with Exceptional....3
EDU 251 Exploration Activities....3
EDU 259 Curriculum Planning....3
EDU 271 Educational Technology....3
EDU 280 Language & Literacy Exp....3
EDU 284 Early Child Capstone Prac....4
PSY 150 General Psychology....3
SOC 210 Introduction to Sociology....3
CIS/EDU Elective....2/3
Students are required to take one (1) course from the following:
CIS 110 Introduction to Computers....3
EDU 234 Infants, Toddlers, & Twos....3
EDU 235 School Age Dev. & Prog....3
EDU 261 Early Childhood Admin I....3
EDU 262 Early Childhood Admin II....3
EDU 275 Effective Teacher Training....2

OTHER REQUIRED COURSES:
ACA 111 College Student Success....1

Total Credit Hours Required 68/70

DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals....3
ENG 090 Composition Strategies....3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050....5
RED 090 Improved College Reading....4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Early Childhood Education • A55220
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ACA	111	College Student Success	1	0	0	1
EDU	119	Intro to Early Childhood Education	4	0	0	4
*EDU	144	Child Development I	3	0	0	3
EDU	151	Creative Activities	3	0	0	3
EDU	271	Educational Technology	2	2	0	3
ENG	111	Expository Writing	3	0	0	3
		Total	16	2	0	17
Spring - 1st year						
*EDU	145	Child Development II	3	0	0	3
EDU	146	Child Guidance	3	0	0	3
SOC	210	Intro. To Sociology	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Natural Science/Mathematics Elective	3	1	0	3/4
		Total	15	1	0	15/16
Summer - 1st year						
EDU	153	Health, Safety & Nutrition	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	6	0	0	6
Fall - 2nd year						
ENG	113	Literature Based Research	3	0	0	3
		OR ENG 114 Prof. Research & Reporting	3	0	0	3
EDU	131	Child Family & Community	3	0	0	3
EDU	221	Children With Exceptional	3	0	0	3
EDU	259	Curriculum Planning	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	15	0	0	15
Spring - 2nd year						
COM	110	Intro to Communication	3	0	0	3
EDU	251	Exploration Activities	3	0	0	3
EDU	280	Language & Lit. Exp.	3	0	0	3
EDU	284	EC Capstone Practicum	1	9	0	4
		CIS/EDU Elective				2/3
		Total	13	10	0	15/16
		Grand Total	65	12	0	68/70

CIS/EDU Electives: CIS 110, EDU 261, EDU 262, EDU 234, EDU 235, EDU 275.
Natural Science and Math Electives: AST 151, AST 151A, BIO 110, BIO 111, BIO 143, BIO 163, BIO 168, CHM 130, CHM 130A Lab, CHM 131, CHM 131A Lab, GEL 111, GEL 120, MAT 115, MAT 121, MAT 140, MAT 140A Lab, MAT 151, MAT 151A Lab, MAT 161, MAT 161A Lab, MAT 171, MAT 171A Lab, MAT 175, MAT 175A Lab, PHS 130, PHY 110 and PHY 110A Lab, PHY 121.

* Students may take PSY 244 and PSY 245 for EDU 144 and EDU 145

EARLY CHILDHOOD EDUCATION
Diploma Program (D55220)

GENERAL EDUCATION COURSES: ..... SHC

English/Communications:
ENG 111 Expository Writing 3
ENG 113 Literature-Based Research 3
OR ENG 114 Prof Research & Reporting 3

MAJOR COURSES:
EDU 119 Intro to Early Child Educ 4
EDU 131 Child, Family, & Commun 3
EDU 144 Child Development I 3
EDU 145 Child Development II 3
OR
PSY 244 Child Development I 3
PSY 245 Child Development II 3
EDU 146 Child Guidance 3
EDU 151 Creative Activities 3
EDU 153 Health, Safety, & Nutrit 3
EDU 221 Children with Exceptional 3
EDU 259 Curriculum Planning 3
EDU 271 Educational Technology 3
EDU 280 Language & Literacy Exp 3
EDU 284 Early Capstone Practicum 4

OTHER REQUIRED COURSES:
ACA 111 College Student Success 1

Total Credit Hours Required 45

DEVELOPMENTAL COURSE REQUIREMENTS*
ENG 090 Composition Strategies 3
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Early Childhood Education Diploma Suggested Sequence (D55220)

Fall - 1st year						
ACA 111	College Student Success	1	0	0	1
EDU 119	Intro to Early Childhood Education	4	0	0	4
*EDU 144	Child Development I	3	0	0	3
EDU 151	Creative Activities	3	0	0	3
EDU 271	Educational Technology	2	2	0	3
	Total	13	2	0	14
Spring - 1st year					
*EDU 145	Child Development II	3	0	0	3
EDU 146	Child Guidance	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
EDU 280	Language & Literacy Exp	3	0	0	3
	Total	12	0	0	12
Summer - 1st year					
EDU 153	Health, Safety & Nutrition	3	0	0	3
ENG 113	Literature Based Research	3	0	0	3
OR ENG 114	Prof. Research & Reporting	3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
EDU 131	Child Family & Community	3	0	0	3
EDU 221	Children With Exceptional	3	0	0	3
EDU 259	Curriculum Planning	3	0	0	3
EDU 284	Early Childhood Capstone Prac	1	9	0	4
	Total	10	9	0	13
	Grand Total	41	11	0	45

EARLY CHILDHOOD EDUCATION
School-Age Certificate Program (C5522004)

MAJOR COURSES: SHC
EDU 131 Child, Family, & Commun 3
EDU 144 Child Development I 3
EDU 145 Child Development II 3
OR
PSY 244 Child Development I 3
PSY 245 Child Development II 3
EDU 146 Child Guidance 3
EDU 235 School-Age Dev & Program 3
EDU 275 Effective Teach Train 2

OTHER REQUIRED COURSES:
ACA 111 College Student Success 1

Total Credit Hours Required 18

DEVELOPMENTAL COURSE REQUIREMENTS*
ENG 090 Composition Strategies 3
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

School-Age Cert. Suggested Sequence (C5522004)

Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
EDU 131	Child Family & Commun	3	0	0	3
*EDU 144	Child Development I	3	0	0	3
EDU 235	School-Age Dev & Program	3	0	0	3
	Total	10	0	0	10
Spring - 1st year					
*EDU 145	Child Development II	3	0	0	3
EDU 146	Child Guidance	3	0	0	3
EDU 275	Effective Teacher Training	2	0	0	2
	Total	8	0	0	8
	Grand Total	18	0	0	18

INFANT/TODDLER CARE - Certificate Prog. (C55290)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The Certificate is awarded graduates of this curriculum. 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 young children under the supervision of qualified teachers. 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 parents 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 child development and child care programs, preschools, public and private schools, recreational centers, Early Head Start Programs, and other infant/toddler programs.

MAJOR COURSES: SHC
EDU 119 Intro to Early Child Educ 4
EDU 131 Child, Family & Commun 3
EDU 153 Health, Safety & Nutrit 3
EDU 234 Infants, Toddlers, & Twos 3
EDU Child Development Elective 3
(Select a course from the following)
EDU 144 Child Development I 3
PSY 244 Child Development I 3

OTHER REQUIRED COURSES:
ACA 111 College Student Success 1

Total Credit Hours Required: 17

DEVELOPMENTAL COURSE REQUIREMENTS*
ENG 090 Composition Strategies 3
RED 090 Improved College Reading 4

Infant/Toddler Care Cert. Prog, (C55290) Suggested Sequence

Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
EDU 119	Intro to Early Childhood Education	4	0	0	4
EDU 131	Child, Family and Community	3	0	0	3
	Child Development Elective	3	0	0	3
	Total	11	0	0	11
Spring - 1st year					
EDU 153	Health, Safety and Nutrition	3	0	0	3
EDU 234	Infants, Toddlers, & Twos	3	0	0	3
	Total	6	0	0	6
	Grand Total	17	0	0	17

ELECTRICAL/ELECTRONICS TECHNOLOGY
Diploma Program (D35220)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day -- two semesters full-time attendance; Evening -- four semesters full-time attendance. The Diploma is awarded graduates of this curriculum. The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial, and industrial facilities. Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require. Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	102	Applied Communications II	3
	OR		
ENG	111	Expository Writing	3
Natural Sciences/Mathematics:			
MAT	101	Applied Mathematics I	3
	OR		
MAT	115	Mathematical Models	3
MAJOR COURSES:			
BPR	111	Blueprint Reading	2
ELC	112	DC/AC Electricity	5
ELC	113	Basic Wiring I	4
ELC	115	Industrial Wiring	4
ELC	117	Motors and Controls	4
ELC	118	National Electrical Code	2
ELC	119	NEC Calculations	2
ELC	128	Intro to PLC	3
ELN	229	Industrial Electronics	4
Total Credit Hours Required			**36**
DEVELOPMENTAL COURSE REQUIREMENTS*			
MAT	DMA 010, DMA 020, DMA 030		3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electrical/Electronics Technology Diploma • D35220
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
BPR	111	Blueprint Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	113	Basic Wiring I	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
MAT	101	Applied Mathematics I	2	2	0	3
	OR	MAT 115 Mathematical Models	2	2	0	3
		Total	10	20	0	18
Spring - 1st year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	117	Motors and Controls	2	6	0	4
ELC	128	Intro to PLC	2	3	0	3
ELN	229	Industrial Electronics	2	4	0	4
ENG	102	Applied Communications II	3	0	0	3
	OR	ENG 111 Expository Writing	3	0	0	3
		Total	11	19	0	18
		Grand Total	21	39	0	36

Elect/Elect Tech Diploma • D35220
Suggested Prog Seq Evening

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ELC	113	Basic Wiring I	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
MAT	101	Applied Mathematics I	2	2	0	3
	OR	MAT 115 Mathematical Models	2	2	0	3
		Total	5	10	0	9
Spring - 1st year						
BPR	111	Blueprint Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	119	NEC Calculations	1	2	0	2
ENG	102	Applied Communications II	3	0	0	3
	OR	ENG 111 Expository Writing	3	0	0	3
		Total	8	10	0	12
Fall - 2nd year						
ELC	117	Motors and Controls	2	6	0	4
ELN	229	Industrial Electronics	2	4	0	4
			0	0	0	0
		Total	4	10	0	8
Spring - 2nd year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	128	Intro to PLC	2	3	0	3
		Total	4	9	0	7
		Grand Total	21	39	0	36

Electrical/Electronics Technology
Electrical Installation Concentration - Cert. Prog. (C35220)

MAJOR COURSES:			**SHC**
BPR	111	Blueprint Reading	2
ELC	113	Basic Wiring I	4
ELC	115	Industrial Wiring	4
ELC	118	National Electrical Code	2
Total Credit Hours Required			**12**
DEVELOPMENTAL COURSE REQUIREMENTS*			
RED	080	Intro to College Reading	4

Electrical/Installation Concentration (C35220)
Certificate Program Suggested Sequence

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
BPR	111	Blueprint Reading	1	2	0	2
ELC	113	Basic Wiring I	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
		Total	4	10	0	8
Spring - 1st year						
ELC	115	Industrial Wiring	2	6	0	4
		Total	2	6	0	4
		Grand Total	6	16	0	12

ELECTRONEURODIAGNOSTIC TECHNOLOGY
A.A.S. Program (A45320)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Some general education courses are offered at night. Minimum time for completion: four semesters. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Electroneurodiagnostic Technology curriculum is designed to provide students with the knowledge and skills to obtain recordings of patients' nervous system functions through the use of electroencephalographic equipment and other electrophysiological devices. Course work includes communication skills with patients and healthcare personnel, taking appropriate patient histories, electrode application, documentation of patients' clinical status, electrical waveform recognition, management of medical emergencies, and preparation of descriptive reports for the physician. Graduates will qualify to take the ABRET (American Board of Registration of EEG and EP Technologists) Exam and, working under the supervision of a qualified physician, may be employed by hospitals or private offices of neurologists and neurosurgeons.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Expository Writing	3
English Elective			3

Students are required to take one (1) course from the following:

ENG	112	Argument-Based Research	3
ENG	113	Literature-Based Research	3
ENG	114	Prof Research & Reporting	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

MAT	115	Mathematical Models	3

Social/Behavioral Sciences:

PSY	150	General Psychology	3

MAJOR COURSES:

BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
CIS	110	Introduction to Computers	3
EDT	110	Neuroscience/Pathol Cond	4
EDT	111	Laboratory Management	1
EDT	111A	EDT Laboratory Basics	1
EDT	112	Instrument/Record Methods	3
EDT	113	Clinical Correlates	2
EDT	114	Special Procedures	3
EDT	115	EDT Laboratory Practice	2
EDT	116	EDT Clinical Experience	12
EDT	118	EDT Laboratory Practice II	3
ELC	111	Intro to Electricity	3
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3

Total Credit Hours Required 68

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electroneurodiagnostic Technology • A45320
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
CIS	110	Introduction to Computers	2	2	0	3
EDT	110	Neuroscience/Pathol Cond	4	0	0	4
EDT	111	Laboratory Management	1	0	0	1
EDT	111A	EDT Laboratory Basics	1	0	0	1
ENG	111	Expository Writing	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	17	2	0	18
Spring - 1st year						
BIO	169	Anatomy and Physiology II	3	3	0	4
EDT	112	Instrumental/Record Methods	3	0	0	3
EDT	113	Clinical Correlates	2	0	0	2
EDT	115	EDT Laboratory Practice	0	6	0	2
ELC	111	Intro to Electricity	2	2	0	3
ENG	112	Argument - Based Research	3	0	0	3
		OR ENG 113 - Literature - Based Research				
		OR ENG 114 - Prof Research & Reporting				
		Total	13	11	0	17
Fall - 2nd year						
EDT	114	Special Procedures	3	0	0	3
EDT	118	EDT Laboratory Practice II	0	9	0	3
MAT	115	Mathematical Models	2	2	0	3
MED	118	Medical Law and Ethics	2	0	0	2
MED	122	Medical Terminology II	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	13	11	0	17
Spring - 2nd year						
EDT	116	EDT Clinical Experience	0	0	36	12
		Total	0	0	36	12
		Grand Total	43	24	36	64

Note: Students must complete BIO 168, Anatomy & Physiology I, 4 credits hours, prior to admission into the program.

ELECTRONICS ENGINEERING TECHNOLOGY
A.A.S. Program (A40200)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day -- five semesters full-time attendance; Evening -- ten semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. The Electronics Engineering Technology curriculum prepares individuals 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. A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems. Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	121	Algebra/Trigonometry I	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CSC	134	C++ Programming	3
DFT	117	Technical Drafting	2
DFT	151	CAD I	3
EGR	110	Intro to Engineering Tech	2
ELC	138	DC Circuit Analysis	4
ELC	139	AC Circuit Analysis	4
ELC	229	Applications Project	2
ELN	131	Semiconductor Applications	4
ELN	132	Linear IC Applications	4
ELN	133	Digital Electronics	4
ELN	234	Communication Systems	4
MAT	122	Algebra/Trigonometry II	3
PHY	131	Physics-Mechanics	4
EET Electives			10
Students are required to take a minimum of 10 SHC from the following:			
ELC	135	Electrical Machines I	3
ELC	136	Electrical Machines II	4
ELN	231	Industrial Controls	3
ELN	235	Data Communication System	4
ELN	260	Prog Logic Controllers	4
PHY	133	Physics-Sound & Light	4

Co-op Option: Qualified students may elect to take up to 2 credit hours of cooperative education in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should consider taking PHY 131 & PHY 133. Please see your advisor.

Total Credit Hours Required 68

DEVELOPMENTAL COURSE REQUIREMENTS*			
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Electronics Engineering Technology • A40200

Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CSC 134	C++ Programming	2	3	0	3
DFT 117	Technical Drafting	1	2	0	2
EGR 110	Intro to Engineering Tech	1	2	0	2
ELC 138	DC Circuit Analysis	3	3	0	4
MAT 121	Algebra/Trigonometry I	2	2	0	3
	Total	9	12	0	14
Spring - 1st year					
DFT 151	CAD I	2	3	0	3
ELC 139	AC Circuit Analysis	3	3	0	4
ELN 131	Semiconductor Applications	3	3	0	4
ENG 111	Expository Writing	3	0	0	3
MAT 122	Algebra/Trigonometry II	2	2	0	3
	Total	13	11	0	17
Summer - 1st year					
ENG 114	Prof Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
Humanities/Fine Arts Elective		3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
ELN 132	Linear IC Applications	3	3	0	4
ELN 133	Digital Electronics	3	3	0	4
PHY 131	Physics-Mechanics	3	2	0	4
Electronics Engineering Technology Elective		2	2	0	3
	Total	11	10	0	15
Spring - 2nd year					
ELC 229	Applications Project	1	3	0	2
ELN 234	Communication Systems	3	3	0	4
Social/Behavioral Science Elective		3	0	0	3
Electronics Engineering Technology Elective		3	3	0	4
Electronics Engineering Technology Elective		3	3	0	4
	Total	13	12	0	16
	Grand Total	50	45	0	68

Co-op Option: Qualified Students may elect to take up to 2 credit hours of cooperative education in place of ELC 229.

Physics Note: Students planning to transfer to a 4-year college should contact their advisor.

Electronic Engineering Technology Electives: The student is required to take a minimum of 10 credits from this list.

ELC 135	Electrical Machines I	2	2	0	3
ELC 136	Electrical Machines II	3	3	0	4
ELN 231	Industrial Controls	2	3	0	3
ELN 235	Data Communications Systems	3	3	0	4
ELN 260	Prog Logic Controllers	3	3	0	4
PHY 133	Physics - Sound & Light	3	2	0	4

Electronics Engineering Technology • A40200
Suggested Program Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
EGR 110	Intro to Engineering Tech	1	2	0	2
ELC 138	DC Circuit Analysis	3	3	0	4
MAT 121	Algebra/Trigonometry I	2	2	0	3
	Total	6	7	0	9
Spring - 1st year					
ELC 139	AC Circuit Analysis	3	3	0	4
MAT 122	Algebra/Trigonometry II	2	2	0	3
	Total	5	5	0	7
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
DFT 117	Technical Drafting	1	2	0	2
ELN 131	Semiconductor Applications	3	3	0	4
	Total	4	5	0	6
Spring - 2nd year					
ELN 132	Linear IC Applications	3	3	0	4
ELN 133	Digital Electronics	3	3	0	4
	Total	6	6	0	8
Summer - 2nd year					
ENG 114	Prof Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	6	0	0	6
Fall - 3rd year					
CSC 134	C++ Programming	2	3	0	3
	Electronics Engineering Technology Elective	2	2	0	3
	Total	4	5	0	6
Spring - 3rd year					
DFT 151	CAD I	2	3	0	3
	Electronics Engineering Technology Elective	3	3	0	3
	Total	5	6	0	6
Fall - 4th year					
ELN 234	Communication Systems	3	3	0	4
PHY 131	Physics-Mechanics	3	2	0	4
	Total	6	5	0	8
Spring - 4th year					
ELC 229	Applications Project	1	3	0	2
	Electronics Engineering Technology Elective	3	3	0	4
	Total	4	6	0	6
	Grand Total	50	45	0	68

Co-op Option: Qualified students may elect to take up to 2 credit hours of cooperative education in place of ELC 229.

Physics Notes: Students planning to transfer to a 4-year college should contact their advisor.

Electronic Engineering Technology Electives: The student is required to take a minimum of 10 credits from this list

ELC 135	Electrical Machines I	2	2	0	3
ELC 136	Electrical Machines II	3	3	0	4
ELN 231	Industrial Controls	2	3	0	3
ELN 235	Data Communications Systems	3	3	0	4
ELN 260	Prog Logic Controllers	3	3	0	4
PHY 133	Physics-Sound & Light	3	2	0	4

EMERGENCY MEDICAL SCIENCE
A.A.S. Program (A45340)

The Emergency Medical Science Curriculum is Accredited by the Commission on Accreditation of Allied Health Education Programs, (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
EMS	110	EMT-Basic	7
EMS	120	Intermediate Interventions	3
EMS	121	EMS Clinical Practicum I	2
EMS	130	Pharmacology I for EMS	2
EMS	131	Adv Airway Management	2
EMS	140	Rescue Scene Management	2
EMS	150	Emerg Vehicles & EMS Comm	2
EMS	210	Adv Patient Assessment	2
EMS	220	Cardiology	4
EMS	221	EMS Clinical Practicum II	3
EMS	231	EMS Clinical Pract III	3
EMS	235	EMS Management	2
EMS	240	Special Needs Patients	2
EMS	241	EMS Clinical Practicum IV	3
EMS	250	Advanced Medical Emergencies	3
EMS	260	Advanced Trauma Emergencies	2
EMS	270	Life Span Emergencies	3
EMS	285	EMS Capstone	2
Total Credit Hours Required			**72**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040		4
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Emergency Medical Science
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
EMS 110	EMT Basic	5	6	0	7
EMS 150	Emergency Vehicles & EMS Comm	1	3	0	2
BIO 169	Anatomy and Physiology II	3	3	0	4
	Total	9	12	0	13
Spring - 1st year					
EMS 120	Intermediate Interventions	2	3	0	3
EMS 121	Clinical Practicum I	0	0	6	2
EMS 130	Pharmacology I for EMS	1	3	0	2
EMS 131	Adv Airway Management	1	2	0	2
CIS 110	Introduction to Computers	2	2	0	3
	Total	6	10	6	12
Summer - 1st year					
EMS 210	Adv Patient Assessment	1	3	0	2
EMS 221	EMS Clinical Practicum II	0	0	9	3
EMS 250	Advanced Medical Emergencies	2	3	0	3
EMS 260	Advanced Trauma Emergencies	1	3	0	2
PSY 150	General Psychology	3	0	0	3
	Total	7	9	9	13
Fall - 2nd year					
EMS 140	Rescue Scene Management	1	3	0	2
EMS 220	Cardiology	2	6	0	4
EMS 231	EMS Clinical Pract III	0	0	9	3
EMS 270	Life Span Emergencies	2	2	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	8	11	9	15
Spring - 2nd year					
EMS 235	EMS Management	2	0	0	2
EMS 240	Special Needs Patients	1	2	0	2
EMS 241	EMS Clinical Practicum IV	0	0	9	3
EMS 285	EMS Capstone	1	3	0	2
ENG 114	Prof Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	10	5	9	15
	Grand Total	40	47	33	68

Note: Students must complete BIO 168, Anatomy & Physiology I, 4 credit hours, prior to admission into the program.

EMERGENCY MEDICAL SCIENCE CURRICULUM
Certificate Paramedic Advancement Program (A4534009)

This special track was developed to facilitate a North Carolina certified paramedic in returning to school to obtain an Associate in Applied Science Degree. The length of this course varies depending on the individual's experience and prior education. In order to enable the most rapid completion of the CPA Program the following prerequisites and/or admission requirements will be used:

1. Meet CVCC's institutional requirements for admissions as an EMS student.
2. Two years of full or four years of part-time employment as a field paramedic in an Advanced Life Support system.
3. Valid North Carolina paramedic certification.
4. Two letters of reference will be required: one from an immediate supervisor and one from the service's Medical Director attesting to the individual's competence in basic and advanced life support skills.
5. Successful completion of the (EVOC/ADM) Emergency Vehicle Operation Course/ Advanced Driving Maneuvers.
6. Once the criterion above has been met, the student will then be offered advance placement exams in the following courses so as to facilitate their movement through the program. To successfully advance place a course all skills required for the course must be successfully completed and the written exam must be passed with a grade of "B" or higher.
   A. EMS 110 EMT-Basic
   B. EMS 120 Intermediate Interventions
   C. EMS 130 Pharmacology I for EMS
   D. EMS 131 Advanced Airway Management
   E. EMS 210 Advanced Patient Assessment
   F. EMS 250 Advanced Medical Emergencies
   G. EMS 260 Advanced Trauma Emergencies
   H. EMS 220 Cardiology
   I. EMS 270 Life Span Emergencies
   J. EMS 240 Special Needs Patients

The student may transfer and/or advance place up to sixty-five percent of the required course hours. This track will be highly individualized depending on any prior college credits by the student and their success with advanced placement scores.

ENTREPRENEURSHIP
A.A.S. Program (A25490)

The Entrepreneurship curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth as self-employed business owners. Course work includes developing a student's ability to make informed decisions as future business owners. Courses include entrepreneurial concepts learned in innovation and creativity, business funding, and marketing. Additional course work includes computers and economics. Through these skills, students will have a sound education base in entrepreneurship for lifelong learning. Graduates are prepared to be self-employed and open their own businesses.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Social/Behavioral Sciences:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	161	College Algebra	3
MAT	161A	College Algebra Lab	1
MAJOR COURSES:			
ACC	120	Prin of Financial Acct	4
BUS	110	Introduction to Business	3
BUS	139	Entrepreneurship I	3
BUS	240	Business Ethics	3
BUS	245	Entrepreneurship II	3
BUS	253	Leadership and Mgt Skills	3
CIS	110	Introduction to Computers	3
COE	110	World of Work	1
ECO	251	Prin of Microeconomics	3
ETR	215	Law for Entrepreneurs	3
ETR	220	Innovation and Creativity	3
ETR	230	Entrepreneur Marketing	3
ETR	240	Funding for Entrepreneurs	3
ETR	270	Entrepreneurship Issues	3

Entrepreneurship Electives: **9**

Entrepreneurship Electives: Students are required to take a minimum of 9SHC from the follow:

ACC	121	Prin of Managerial Accounting	4
BUS	125	Personal Finance	3
BUS	153	Human Resource Management	3
COE	XXX	World of Work	1
CTS	130	Spreadsheet	3
ECO	252	Prin of Macroeconomics	3
MKT	123	Fundamentals of Selling	3
MKT	220	Advertising and Sales Promotion	3
MKT	221	Consumer Behavior	3
MKT	223	Customer Service	3
RLS	112	Broker Prelicensing	3

Total Credit Hours Required **65-66**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080		8
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Entrepreneurship • A25490
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 139	Entrepreneurship I	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
ETR 220	Innovation & Creativity	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	15	0	0	15
Spring - 1st year					
ACC 120	Principles of Financial Accounting	3	2	0	4
BUS 245	Entrepreneurship II	3	0	0	3
CIS 110	Introduction to Computers	2	2	0	3
ETR 215	Law for Entrepreneurs	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
	OR MAT 161 College Algebra	3	0	0	3
	and MAT 161A College Algebra Lab	0	2	0	1
	Total	13/14	6	0	16/17
Fall - 2nd year					
BUS 240	Business Ethics	3	0	0	3
ECO 251	Microeconomics	3	0	0	3
ENG 114	Professional Research & Reporting	3	0	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Total	18	0	0	18
Spring - 2nd year					
BUS 253	Leadership & Management Skills	3	0	0	3
COE 110	World of Work	1	0	0	1
ETR 240	Funding For Entrepreneur	3	0	0	3
ETR 270	Entrepreneurship	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Entrepreneurship Elective	3	0	0	3
	Total	16	0	0	16
	Grand Total	62/63	6	0	65/66

Entrepreneurship - Cert. Prog. (C25490)

MAJOR COURSES:			SHC
BUS	139	Entrepreneurship	3
BUS	245	Entrepreneurship II	3
ETR	220	Innovation and Creativity	3
ETR	230	Entrepreneur Marketing	3

Total Credit Hours Required: 16

Entrepreneurship Certificate Suggested Day Sequence (C25490)

Fall - 1st year					
BUS 139	Entrepreneurship I	3	0	0	3
ETR 220	Innovation & Creativity	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	9	0	0	9
Spring - 1st year					
BUS 245	Entrepreneurship II	3	0	0	3
	Total	3	0	0	3
	Grand Total	12	0	0	12

Entrepreneurship - Diploma Program (D25490)

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Acct	4
BUS	110	Introduction to Business	3
BUS	139	Entrepreneurship I	3
BUS	245	Entrepreneurship II	3
BUS	253	Leadership and Mgt Skills	3
COE	110	World of Work	1
ECO	251	Prin of Microeconomics	3
ETR	215	Law for Entrepreneurs	3
ETR	220	Innovation and Creativity	3
ETR	230	Entrepreneur Marketing	3
ETR	270	Entrepreneurship Issues	3

Total Credit Hours Required: 38

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Entrepreneurship Diploma Suggested Day Sequence (D25490)

Fall - 1st year					
BUS 110	Introduction to Business	3	0	0	3
BUS 139	Entrepreneurship I	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
ETR 230	Entrepreneur Marketing	3	0	0	3
	Total	12	0	0	12
Spring - 1st year					
ACC 120	Principles of Financial Accounting	3	2	0	4
BUS 245	Entrepreneurship II	3	0	0	3
ETR 215	Law for Entrepreneurs	3	0	0	3
ETR 270	Entrepreneurship	3	0	0	3
	Total	12	2	0	13
Fall - 2nd year					
BUS 253	Leadership & Management Skills	3	0	0	3
ECO 251	Microeconomics	3	0	0	3
ETR 220	Innovation & Creativity	3	0	0	3
	Total	9	0	0	9
Spring - 2nd year					
COE 110	World of Work	1	0	0	1
	Social/Behavioral Science Elective	3	0	0	3
	Total	4	0	0	4
	Grand Total	37	2	0	38

FIRE PROTECTION TECHNOLOGY
A.A.S. Program (A55240)

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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
FIP	120	Intro to Fire Protection	3
FIP	124	Fire Prevention & Public Ed	3
FIP	128	Detection & Investigation	3
FIP	132	Building Construction	3
FIP	136	Inspections & Codes	3
FIP	144	Sprinklers & Auto Alarms	3
FIP	148	Fixed & Port Exting Sys	3
FIP	152	Fire Protection Law	3
FIP	220	Fire Fighting Strategies	3
FIP	224	Fire Instructor I & II	4
FIP	228	Local Govt Finance	3
FIP	229	Fire Dynamics and Combust	3
FIP	236	Emergency Management	3
FIP	240	Fire Service Supervision	3
FIP	248	Fire Svc Personnel Adm	3
FIP	276	Managing Fire Services	3
Total Credit Hours Required			**67-68**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Fire Protection Technology - Certificate (C5524001)

MAJOR COURSES:			
FIP	220	Fire Fighting Strategies	3
FIP	224	Fire Instructor I & II	4
FIP	240	Fire Services Supervision	3
FIP	248	Fire Services Personnel Admin.	3
FIP	276	Managing Fire Services	3
Total Credit Hours Required:			**16**

Fire Protection Technology - Cert. Sug. Seq. (C5524001)

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
FIP	220	Fire Fighting Strategies	3	0	0	3
FIP	276	Managing Fire Services	3	0	0	3
		Total	6	0	0	6
Spring - 1st year						
FIP	224	Fire Instructor I & II	4	0	0	4
FIP	240	Fire Service Supervision	3	0	0	3
FIP	248	Fire Service Personnel Admin.	3	0	0	3
		Total	10	0	0	10
		Grand Total	16	0	0	16

Fire Protection Technology • A55240 Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
FIP	120	Introduction to Fire Protection	3	0	0	3
FIP	124	Fire Prevention & Public Ed	3	0	0	3
FIP	220	Fire Fighting Strategies	3	0	0	3
FIP	276	Managing Fire Services	3	0	0	3
ENG	111	Expository Writing	3	0	0	3
		Total	15	0	0	15
Spring - 1st year						
FIP	136	Inspection & Codes	3	0	0	3
FIP	144	Sprinklers & Auto Alarms	2	2	0	3
FIP	152	Fire Protection Law	3	0	0	3
FIP	224	Fire Instructor I & II	4	0	0	4
CIS	110	Introduction to Computers	3	0	0	3
		Total	15	2	0	16
Summer - 1st year						
MAT	115	Mathematical Models	2	2	0	3
	OR	MAT 140 Survey of Mathematics	3	0	0	3
	and	MAT 140A Survey of Mathematics Lab	0	2	0	1
ENG	114	Prof. Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	8/9	2	0	9/10
Fall - 2nd year						
FIP	128	Detection I Investigation	3	0	0	3
FIP	132	Building Construction	3	0	0	3
FIP	148	Fixed & Port Exting System	2	2	0	3
FIP	236	Emergency Management	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	14	2	0	15
Spring - 2nd year						
FIP	228	Local Govt. Finance	3	0	0	3
FIP	229	Fire Dynamics & Combust	3	0	0	3
FIP	240	Fire Service Supervision	3	0	0	3
FIP	248	Fire Service Personnel Admin.	3	0	0	3
		Total	12	0	0	12
		Grand Total	64/65	6	0	67/68

Fire Protection Technology • A55240 Suggested Prog Seq Evening

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
FIP	120	Introduction to Fire Protection	3	0	0	3
FIP	124	Fire Prevention & Public Ed	3	0	0	3
ENG	111	Expository Writing	3	0	0	3
		Total	9	0	0	9
Spring - 1st year						
FIP	136	Inspection & Codes	3	0	0	3
FIP	144	Sprinklers & Auto Alarms	2	2	0	3
CIS	110	Introduction to Computers	3	0	0	3
		Total	8	2	0	9
Summer - 1st year						
ENG	114	Prof. Research & Reporting	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
PSY	150	General Psychology	3	0	0	3
		Total	6	0	0	6
Fall - 2nd year						
FIP	128	Detection I Investigation	3	0	0	3
FIP	132	Building Construction	3	0	0	3
FIP	148	Fixed & Port Exting System	2	2	0	3
		Total	8	2	0	9
Spring - 2nd year						
FIP	228	Local Govt. Finance	3	0	0	3
FIP	229	Fire Dynamics & Combust	3	0	0	3
		Total	6	0	0	6
Summer - 2nd year						
MAT	115	Mathematical Models	2	2	0	3
	OR	MAT 140 Survey of Mathematics	3	0	0	2
	and	MAT 140A Survey of Mathematics Lab	0	2	0	1
		Total	2/3	2	0	3/4
Fall - 3rd year						
FIP	220	Fire Fighting Strategies	3	0	0	3
FIP	276	Managing Fire Services	3	0	0	3
		Total	6	0	0	6
Spring 3rd year						
FIP	152	Fire Protection Law	3	0	0	3
FIP	224	Fire Instructor I & II	4	0	0	4
		Total	7	0	0	7
Fall - 4th year						
FIP	236	Emergency Management	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	6	0	0	6
Spring - 4th year						
FIP	240	Fire Service Supervision	3	0	0	3
FIP	248	Fire Service Personnel Admin.	3	0	0	3
		Total	8	0	0	8
		Grand Total	64/65	6	0	67/68

FURNITURE UPHOLSTERY
Certificate Program

Courses required to meet graduation requirements in this curriculum are offered during evening hours only. Minimum time for completion: two semesters full-time attendance. A certificate is awarded graduates of this curriculum. The Furniture Upholstery curriculum prepares the student to become a professional upholsterer. Students are taught the fundamentals and techniques of furniture upholstery work starting with wooden frames, pattern development, industrial cutting, and sewing skills. Production quality and speed will be emphasized. Upon successful completion of the Furniture Upholstery program, the student will be able to develop patterns, lay out and cut cloth, and operate various sewing machines. Students will also perform spring-up procedures and do the inside and outside of upholstered furniture. Graduates of the Furniture Upholstery program should qualify for positions as pattern makers, fabric cutters, upholstery sewers, spring-ups, upholsterers, or outsiders.

FURNITURE UPHOLSTERY (Cutting and Sewing)
Day (C5022008) • Evening (C5022037)

MAJOR COURSES:			SHC
UPH	111	Cutting & Pattrn Makng I	3
UPH	112	Cutting & Pattrn Makng II	3
UPH	121	Sewing I	3
UPH	122	Sewing II	3
Upholstery Electives			3
Students are required to take one (1) course from the following:			
UPH	123	Sewing III	3
UPH	131	Seat Construction I	3

All courses taught all semesters. Please see your advisor for assistance.
Total Credit Hours Required 15

Furniture Upholstery Cutting & Sewing
Suggested Program Sequence

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
UPH	111	Cutting & Pattern Makng I	1	4	0	3
UPH	112	Cutting & Pattern Makng II	1	4	0	3
UPH	121	Sewing I	1	4	0	3
UPH	122	Sewing II	1	4	0	3
		UPH Program Elective	1	4	0	3
		Grand Total	5	20	0	15
Spring - 1st year (Major Courses/If not taken in the Fall)						
UPH	111	Cutting & Pattern Makng I	1	4	0	3
UPH	112	Cutting & Pattern Makng II	1	4	0	3
UPH	121	Sewing I	1	4	0	3
UPH	122	Sewing II	1	4	0	3
		UPH Program Elective	1	4	0	3
		Grand Total	5	20	0	15

FURNITURE UPHOLSTERY (Upholstery)
Day (C5022007) • Evening (C502236)

MAJOR COURSES:			SHC
UPH	131	Seat Construction I	3
UPH	141	Inside Upholstery I	3
UPH	151	Outside Upholstery I	3
UPH	152	Outside Upholstery II	3
Upholstery Electives			3
Students are required to take one (1) courses from the following:			
UPH	132	Seat Construction II	3
UPH	142	Inside Upholstery II	3

All courses taught all semesters. Please see your advisor for assistance.
Total Credit Hours Required 15

Furniture Upholstery
Suggested Program Sequence

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
UPH	131	Seat Construction II	1	4	0	3
UPH	141	Inside Upholstery I	1	4	0	3
UPH	151	Outside Upholstery I (First 8 weeks)	1	4	0	3
UPH	152	Outside Upholstery II (Second 8 weeks)	1	4	0	3
		UPH Program Elective	1	4	0	3
		Grand Total	5	20	0	15
Spring - 1st year (Major Courses/If not taken in the Fall)						
UPH	131	Seat Construction II	1	4	0	3
UPH	141	Inside Upholstery I	1	4	0	3
UPH	151	Outside Upholstery I (First 8 weeks)	1	4	0	3
UPH	152	Outside Upholstery II (Second 8 weeks)	1	4	0	3
		UPH Program Elective	1	4	0	3
		Grand Total	5	20	0	15

GENERAL OCCUPATIONAL TECHNOLOGY
A.A.S. Program (A55280)

The General Occupational Technology (GOT) curriculum provides individuals with an opportunity to upgrade their skills and earn an associate degree, diploma, or certificate by taking courses that offer specific job knowledge and skills.

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

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

All courses included in the GOT must be taken from approved Associate of Applied Science (AAS), diploma or certificate programs.

GENERAL EDUCATION (15 SHC)

Associate Degree programs must contain a minimum of 15 semester hours of general education coursework. The general education hours must include a minimum of 6 semester hours in communications and at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Diploma programs must contain a minimum of 6 semester hours of general education, 3 semester hours of which must be in communications. General education is optional in certificate programs.

MAJOR COURSES (49 SHC)

Program Courses

The General Occupational Technology Associate in Applied Science (AAS), diploma, and certificate programs must include courses which offer specific job knowledge and skills. The student must select and complete a minimum of 49 SHC from a combination of major courses for curriculums approved to be offered by the college. Work experience, including cooperative education, practicums, and internships, may be included in a degree program up to a maximum of 8 semester hours of credit, in a diploma up to a maximum of 4 semester hours credit, and in a certificate program up to a maximum of 2 semester hours of credit.

OTHER REQUIRED HOURS (0-7 SHC)

Local employer requirements, as well as college designated graduation requirements, may be accommodated in "other required hours". Up to a maximum of 7 semester hours of credit in other required hours may be included in an AAS degree program, 4 semester hours of credit in a diploma program, and 1 semester hour of credit in other required hours may be included in a certificate program. Any course in the Combined Course Library that is educationally relevant to the student's career objective may be used in other required hours, as long as it is not a restricted or unique course.

TOTAL SHC (64-76 SHC)

The total number of semester hour credit must include a minimum of 64 hours and a maximum of 76 hours.

GRAPHIC ARTS & IMAGING TECHNOLOGY
A.A.S. Program (A30180)

Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. The Graphics Arts and Imaging Technology curriculum is designed to provide students with knowledge and skills necessary for employment in the printing, publishing, packaging, and related industries. Students will receive hands-on training in computer publishing, imaging technology, offset lithography, screen printing, and emerging printing technologies. Training may also include flexography, graphic design, and multimedia. Graduates should qualify for career opportunities within the printing and publishing industries.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
Social/Behavioral Sciences:			
Elective			3

MAJOR COURSES:			
BUS	110	Introduction to Business	3
GRA	121	Graphic Arts I	4
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRA	221	Graphic Arts II	4
GRA	252	Imaging Techniques	3
GRA	255	Image Manipulation I	2
GRA	256	Image Manipulation II	2
GRD	141	Graphic Design I	4
GRD	265	Digital Print Production	3
GRD	271	Multimedia Design I	2
MKT	120	Principles of Marketing	3
PRN	155	Screen Printing I	2
PRN	156	Screen Printing II	2
PRN	220	Offset Press Fundamentals	2
PRN	240	Print Estimating/Planning	3
Program Elective OR Co-op			6

Students are required to take 6 SHC from the following:

ART	264	Digital Photography	3
BUS	125	Personal Finance	3
BUS	137	Principles of Management	3
BUS	153	Human Resource Management	3
CIS	110	Introduction to Computers	3
COE	XXX	Co-op Work Experience	1-6
GRD	142	Graphic Design II	4
MKT	220	Advertising and Sales Promotion	3
MKT	221	Consumer Behavior	3
PHO	110	Fund of Photography	5

OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1

Co-op Option: Qualified students may elect to take up to 6 credit hours of cooperative education in place of 6 hours Program electives.

Total Credit Hours Required 66

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Graphic Arts and Imaging Technology • A30180
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
GRA 121	Graphics Arts I	2	4	0	4
GRA 151	Computer Graphics I	1	3	0	2
GRD 141	Graphic Design I	2	4	0	4
ENG 111	Expository Writing	3	0	0	3
	Total	9	11	0	14
Spring - 1st year					
GRA 152	Computer Graphics II	1	3	0	2
GRA 255	Image Manipulation I	1	3	0	2
PRN 155	Screen Printing I	1	3	0	2
PRN 220	Offset Fundamentals	1	3	0	2
ENG 114	Prof Research & Reporting	3	0	0	3
	Program Elective OR Co-op Work Experience				3
	Total	7	12	0	14
Summer - 1st year					
BUS 110	Introduction to Business	3	0	0	3
MAT 140	Survey of Mathematics	3	0	0	3
MAT 140A	Survey of Mathematics Lab	0	2	0	1
	OR a higher Math				
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
GRA 252	Imaging Techniques	1	4	0	3
GRA 256	Image Manipulation II	1	3	0	2
GRD 265	Digital Print Production	1	4	0	3
GRD 271	Multimedia Design I	1	3	0	2
MKT120	Principles of Marketing	3	0	0	3
	Total	7	14	0	13
Spring - 2nd year					
PRN 156	Screen Printing II	1	3	0	2
PRN 240	Print Estimating/Planning	3	0	0	3
GRA 221	Graphic Arts II	2	4	0	4
	Humanities/Fine Arts Elective	3	0	0	3
	Program Elective OR Co-op Work Experience				3
	Total	9	7	0	15
	Grand Total	41	46	0	66

Program Electives- Must be selected from the following list:
ART 264, BUS 125, BUS 137, BUS 153, CIS 110, COE XXX, GRD 142, MKT 220, MKT 221, PHO 110.

Graphic Arts and Imaging Technology Certificate • (C30180)

MAJOR COURSES:			SHC
GRA	121	Graphic Arts I	4
GRD	141	Graphic Design I	4
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRA	255	Image Manipulation I	2
PRN	155	Screen Printing I	2

Total Credit Hours Required 16

Graphic Arts and Imaging Technology Certificate • (C30180)
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
GRA 121	Graphics Arts I	2	4	0	4
GRD 141	Graphic Design I	2	4	0	4
GRA 151	Computer Graphics I	1	3	0	2
	Total	5	11	0	10
Spring - 1st year					
GRA 152	Computer Graphics II	1	3	0	2
GRA 255	Image Manipulation I	1	3	0	2
PRN 155	Screen Printing I	1	3	0	2
	Total	3	9	0	6
	Grand Total	8	20	0	16

HEALTH AND FITNESS SCIENCE (Pending)
A.A.S. Program (A45630)

Courses required to meet graduation requirements in this curriculum are offered during day hours. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum. The Health and Fitness Science curriculum is accredited by the Commission on Accreditation for Health and Fitness.

The Health and Fitness Science program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry. Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities. Graduates should qualify for employment opportunities in commercial fitness clubs, YMCA's/YWCA's, wellness programs in business and industry, Parks & Recreation Departments and other organizations implementing exercise & fitness programs.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	112	Argument-Based Research	3
OR			
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	155	Nutrition	3
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
HEA	112	First Aid & CPR	2
PSF	110	Exercise Science	4
PSF	111	Fitness & Exer Testing I	4
PSF	116	Pvnt & Care Exer Injuries	3
PSF	118	Fitness Facility Mgmt	4
PSF	120	Group Exer Instruction	3
PSF	210	Personal Training	3
PSF	212	Exercise Programming	3
PSF	218	Lifestyle Chng & Wellness	4
OTHER MAJOR COURSES:			
COE	111	Coop Work Experience I	1
PED	110	Fit and Well for Life	2
PSF	114	Phys Fit Theory & Instr	4
PSY	275	Health Psychology	3
PED Electives			**2**
PED	113	Aerobics I	1
PED	117	Weight Training I	1
PED	118	Weight Training II	1
PED	120	Walking for Fitness	1
PED	122	Yoga I	1
OTHER REQUIRED COURSES:			
COM	110	Introduction to Communication	3
Total Credit Hours Required			**70/71**
DEVELOPMENTAL COURSE REQUIREMENTS*			
ENG	090	Composition Strategies	3
ENG	090A	Comp Strategies Lab	1
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health and Fitness Science • A45630
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ENG	111	Expository Writing	3	0	0	3
HEA	112	First Aid & CPR	1	2	0	2
PED	110	Fit And Well For Life	1	2	0	2
PSF	110	Exercise Science	4	0	0	4
PSY	150	General Psychology	3	0	0	3
	PED Elective		1	0	0	1
		Total	13	4	0	15
Spring - 1st year						
ENG	112	Argument-Based Research	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
	OR	ENG 114 Prof Research & Reporting	3	0	0	3
BIO	168	Anatomy and Physiology	3	3	0	4
BIO	155	Nutrition	3	0	0	3
PSF	111	Fitness & Exer Testing I	3	2	0	4
PSF	114	Phys Fit Theory & Instr	4	0	0	4
		Total	16	5	0	18
Summer - 1st year						
MAT	115	Mathematical Models	3	0	0	3
	OR	MAT 140 Survey of Mathematics	3	0	0	3
		MAT 140A Survey of Mathematics Lab	0	2	0	1
	Humanities/Fine Arts Elective		3	0	0	3
		Total	6	2	0	6/7
Fall - 2nd year						
COE	111	Coop Work Experience I	0	0	10	1
COM	110	Introduction to Communication	3	0	0	3
BIO	169	Anatomy and Physiology II	3	3	0	4
PSF	116	Pvnt & Care Exer Injuries	2	2	0	3
PSF	120	Group Exer Instruction	2	2	0	3
	PED Elective		1	0	0	1
		Total	11	7	10	15
Spring - 2nd year						
PSF	118	Fitness Facility Mgmt	4	0	0	4
PSF	210	Personal Training	2	2	0	3
PSF	212	Exercise Programming	2	2	0	3
PSF	218	Lifestyle Chng & Wellness	3	2	0	4
PSF	275	Health Psychology	3	0	0	3
		Total	14	6	0	17
		Grand Total	60	24	10	71/72

HEALTH INFORMATION TECHNOLOGY
A.A.S. Program (A45360)

Courses required to meet graduation requirements in this curriculum are offered during day hours with selected courses offered during evening hours. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum. The Health Information Technology curriculum is accredited by the Commission on Accreditation for Health Informatics and Information Management Education.

The Health Information Technology curriculum prepares individuals with the knowledge and skills to process, analyze, abstract, compile, maintain, manage, and report health information. Students will supervise departmental functions; classify, code and index diagnoses and procedures; coordinate information for cost control, quality management, statistics, marketing, and planning; monitor governmental and non-governmental standards; facilitate research; and design system controls to monitor patient information security. Graduates of this program may be eligible to write the national certification examination to become a Registered Health Information Technician. Employment opportunities include hospitals, rehabilitation facilities, nursing homes, health insurance organizations, outpatient clinics, physicians' offices, hospice, and mental health facilities.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG 111 Expository Writing 3

English Elective 3

Students are required to take one (1) course from the following:

ENG 112 Argument-Based Research 3
ENG 113 Literature-Based Research 3
ENG 114 Prof Research & Reporting 3

Humanities/Fine Arts:

Elective 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models 3

Social/Behavioral Sciences:

PSY 150 General Psychology 3

MAJOR COURSES:

BIO 168 Anatomy and Physiology I 4
BIO 169 Anatomy and Physiology II 4
BUS 137 Principles of Management 3
CIS 110 Introduction to Computers 3
OR
CIS 111 Basic PC Literacy 2
DBA 110 Database Concepts 3
HIT 110 Fundamentals of HIM 3
HIT 112 Health Law and Ethics 3
HIT 114 Health Data Sys/Standards 3
HIT 122 Prof Practice Exp I 1
HIT 124 Prof Practice Exp II 1
HIT 210 Healthcare Statistics 3
HIT 211 ICD Coding 4
HIT 214 CPT/Other Coding Systems 2
HIT 215 Reimbursement Methodology 2
HIT 216 Quality Management 2
HIT 220 Health Informatics & EHRs 2
HIT 222 Prof Practice Exp III 2
HIT 226 Principles of Disease 3
HIT 280 Professional Issues 2
MED 121 Medical Terminology I 3
MED 122 Medical Terminology II 3

Total Credit Hours Required 70-71

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health Information Technology • (A45360)
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ENG 111	Expository Writing	3	0	0	3
MED 121	Med Term I	3	0	0	3
BIO 168	Anatomy & Phsciology I	3	3	0	4
HIT 110	Fundamentals of Health Info Mgmt	3	0	0	3
HIT 112	Health Law and Ethics	3	0	0	3
CIS 110	Intro to Computers	2	2	0	3
OR CIS 111	Basic PC Lit.	1	2	0	2
	Total	16/17	5	0	18/19
Spring - 1st year					
ENG 112	Argument Based Research (Preferred)	3	0	0	3
OR ENG 113	Literature Based Research				
OR ENG 114	Prof Research & Reporting				
MED 122	Med Term II	3	0	0	3
BIO 169	Anatomy & Physiology II	3	3	0	4
DBA 110	Database Concepts	2	3	0	3
HIT 114	Health Data Sys/Standards	2	3	0	3
	Total	13	9	0	16
Summer - 1st year					
HIT 122	Prof Practice Exp I	0	0	3	1
	Humanities Elective	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
PSY 150	General Psychology	3	0	0	3
	Total	8	2	3	10
Fall - 2nd year					
HIT 210	Healthcare Statistics	2	2	0	3
HIT 211	ICD Coding	2	6	0	4
HIT 216	Quality Management	1	3	0	2
HIT 220	Health Informatics & EHRs	1	2	0	2
HIT 226	Principles of Disease	3	0	0	3
	Total	9	13	0	14
Spring - 2nd year					
HIT 124	Prof Practice Exp II	0	0	3	1
HIT 222	Prof Practice Exp III	0	0	6	2
HIT 214	CPT/Other Coding Systems	1	3	0	2
HIT 215	Reimbursement Methodology	1	2	0	2
BUS 137	Principles of Management	3	0	0	3
HIT 280	Professional Issues	2	0	0	2
	Total	7	5	9	12
	Grand Total	53/54	34	12	70/71

HEALTH INFORMATION TECHNOLOGY
Certificate Program (C45360)

Courses required to meet graduation requirements in this curriculum are offered during day hours with selected courses offered during evening hours. Minimum time for completion: two semesters part-time attendance. A certificate is awarded graduates of this curriculum.

MAJOR COURSES:			SHC
CIS	110	Introduction to Computers	3
OR			
CIS	111	Basic PC Literacy	2
HIT	110	Fundamentals of HIM	3
HIT	112	Health Law and Ethics	3
HIT	114	Health Data Sys/Standards	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
Total Credit Hours Required			**17-18**

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Health Care Technology Cert. Prog. (C45360)
Suggested Sequence

Fall - 2nd year						
HIT	110	Fund of Health Information Mgmt	3	0	0	3
HIT	112	Health Law and Ethics	3	0	0	3
MED	121	Med Term I	3	0	0	3
		Total	9	0	0	9
Spring - 2nd year						
HIT	114	Health Data Sys/Standards	2	3	0	3
MED	122	Med Term II	3	0	0	3
CIS	110	Introduction to Computers	2	2	0	3
OR		CIS 111 Basic PC Literacy	1	2	0	2
		Total	6/7	5	0	8/9
		Grand Total	15/16	5	0	17/18

HEALTHCARE MANAGEMENT TECHNOLOGY
A.A.S. Program (A25200)

Core courses, those specific to Healthcare Management Technology, are offered during day hours, as well as distance learning opportunities. Most other courses required to meet graduation requirements are offered by the above methods and evening hours. Minimum time for completion: Day -- five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Healthcare Management Technology curriculum is designed to prepare students for employment in healthcare business and financial operations. Students will gain a comprehensive understanding of the application of management principles to the healthcare environment. The curriculum places emphasis on planning, organizing, directing, and controlling tasks related to healthcare organizational objectives including the legal and ethical environment. Emphasis is placed on the development of effective communication, managerial, and supervisory skills. Graduates may find employment in healthcare settings including hospitals, medical offices, clinics, long-term care facilities, and insurance companies. Graduates are eligible to sit for several certification examinations offered by healthcare management professional organizations.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR	ENG 112 Argument Based Research	3
	OR	ENG 113 Literature Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Accounting	4
ACC	121	Prin of Managerial Accounting	4
CIS	110	Introduction to Computers	3
COE	XXX	Co-op Work Experience	2
CTS	130	Spreadsheet	3
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
HMT	220	Healthcare Financial Mgmt	4
HMT	225	Practice Management Sim	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	149	Medical Legal Issues	3
OST	247	Procedure Coding	2
OST	248	Diagnostic Coding	2
OST	281	Emer Issues in Med Ofc	3
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**68**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information

Health Care Management Technology • (A25200)
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ACA	111	College Student Success	1	0	0	1
ACC	120	Prin of Financial Accounting	3	2	0	4
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	114	Prof Interac in Heal Care	1	0	0	1
MED	121	Medical Terminology I (1st Eight Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd Eight Wks)	3	0	0	3
		Total	14	2	0	15
Spring - 1st year						
ACC	121	Prin of Managerial Accounting	3	2	0	4
CIS	110	Intro to Computers	2	2	0	3
HMT	210	Medical Insurance	3	0	0	3
OST	149	Medical Legal Issues	3	0	0	3
OST	281	Emer Issues in Med Ofc	3	0	0	3
		Total	14	4	0	16
Summer - 1st year						
ENG	111	Expository Writing	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	0	0	9
Fall - 2nd year						
CTS	130	Spreadsheet	2	2	0	3
ENG	112	Argument-Based Research (Preferred)	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
	OR	ENG 114 Pro Research & Reporting	3	0	0	3
(Students are highly encouraged to take ENG 114)						
HMT	211	Long-Term Care Admin	3	0	0	3
MAT	115	Mathematical Models	2	2	0	3
OST	247	Procedure Coding	1	2	0	2
		Total	11	2	0	15
Spring - 2nd year						
HMT	212	Mgt. of Healthcare Org.	3	0	0	3
HMT	220	Healthcare Financial Mgmt	4	0	0	4
HMT	225	Practice Mgmt. Simulation	2	2	0	3
OST	248	Diagnostic Coding	1	2	0	2
COE	***	Co-op Work Experience	0	0	20	2
		Total	10	4	20	12
		Grand Total	58	12	20	68

HEALTHCARE MANAGEMENT TECHNOLOGY
Healthcare Management Certificate Program (C25200)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3

Total Credit Hours Required 18

DEVELOPMENTAL COURSE REQUIREMENTS*

RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions.

HealthCare Management Technology Cert. Prog. (C25200)
Suggested Sequence

Fall - 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 weeks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 weeks)	3	0	0	3
		Total	9	0	0	9
Spring - 1st year						
HMT	210	Medical Insurance	3	0	0	3
HMT	211	Long-Term Care Admin	3	0	0	3
HMT	212	Mgt of Healthcare Org	3	0	0	3
		Total	9	0	0	9
		Grand Total	18	0	0	18

HEALTHCARE MANAGEMENT TECHNOLOGY
Healthcare Receptionist
Certificate Program (C2520005)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	149	Medical Legal Issues	3

Total Credit Hours Required 16

DEVELOPMENTAL COURSE REQUIREMENTS*

RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information

Healthcare Management Technology
Healthcare Receptionist (C2520005)
Certificate Program Suggested Sequence

Fall - 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 weeks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 weeks)	3	0	0	3
		Total	9	0	0	9
Spring - 1st year						
MED	114	Prof Interac in Heal Care	1	0	0	1
HMT	210	Medical Insurance	3	0	0	3
OST	149	Medical Legal Issues	3	0	0	3
		Total	7	0	0	7
		Grand Total	16	0	0	16

HEALTHCARE MANAGEMENT TECHNOLOGY
Insurance
Certificate Program (C2520004)

MAJOR COURSES:			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	114	Prof Interac in Heal Care	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	247	Procedure Coding	2
OST	248	Diagnostic Coding	2

Total Credit Hours Required 17

DEVELOPMENTAL COURSE REQUIREMENTS*

RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

HealthCare Management Technology Insurance (C2520004)
Certificate Program Suggested Sequence

Fall - 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st 8 Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd 8 Wks)	3	0	0	3
		Total	9	2	0	9
Spring - 1st year						
MED	114	Prof Interac In Heal Care	1	0	0	1
HMT	210	Medical Insurance	3	0	0	3
OST	247	Procedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2
		Total	6	4	0	8
		Grand Total	15	4	0	17

HORTICULTURE TECHNOLOGY
A.A.S. Program (A15240)

Most courses required to meet graduation requirements in this curriculum are offered during day hours only. Selected courses are offered each semester via the Internet. Minimum time for completion: Day -- five semesters full-time attendance for the full curriculum; Evening -- three semesters for the certificate program option. The Associate in Applied Science Degree is awarded graduates of this curriculum. A certificate is awarded graduates of the certificate program option. Special University Articulation Agreement with North Carolina State University: NCSU may accept up to 15 semester credit hours in Horticulture from CVCC toward the Bachelor of Science in Horticulture Degree. A course grade of C or higher for each course is required. For details, call Darrell Kiser at extension 4238. CVCC has an 2 + 2 Articulation Agreement with N.C. Agricultural and Technological State University in Horticulture. 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. 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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES :			
HOR	110	Intro to Landscaping	2
HOR	112	Landscape Design I	3
HOR	114	Landscape Construction	3
HOR	116	Landscape Management I	3
HOR	118	Equipment Op & Maint	2
HOR	134	Greenhouse Operations	3
HOR	160	Plant Materials I	3
HOR	162	Applied Plant Science	3
HOR	164	Hort Pest Management	3
HOR	166	Soils & Fertilizers	3
HOR	168	Plant Propagation	3
HOR	170	Hort Computer Apps	2
HOR	213	Landscape Design II	3
HOR	215	Landscape Irrigation	3
HOR	260	Plant Materials II	3
HOR	265	Adv Plant Materials	2
HOR	273	Hor Mgmt & Marketing	3
TRF	110	Intro Turfgrass Cult & ID	4
Co-op or Horticulture Elective			4
Please choose from the following:			
COE	XXX	Co-op	1-4
HOR	255	Interiorscapes	2
SPA	120	Spanish for the Workplace	3
TRF	120	Turfgrass Irrigat & Design	4
TRF	125	Turfgrass Computer App	2
TRF	130	Native Flora ID	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	150	Landscape Drafting	2
TRF	151	Intro Landscape Design	3
TRF	152	Landscape Maintenance	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	230	Turfgrass Mgmt Apps	2
TRF	250	Golf /Sport Field Const	4
TRF	260	Adv Turfgrass Mgmt	4

Con't.

Total Credit Hours Required 70

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology • A15240
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
TRF 110	Intro Turfgrass Cult & ID	3	2	0	4
HOR 118	Equipment Op & Maint	1	3	0	2
HOR 162	Applied Plant Science	2	2	0	3
HOR 166	Soils and Fertilizers	2	2	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	11	9	0	15
Spring - 1st year					
MAT 115	Mathematical Models	2	2	0	3
HOR 168	Plant Propagation	2	2	0	3
HOR 160	Plant Materials I	2	2	0	3
HOR 116	Landscape Management I	2	2	0	3
HOR 110	Intro To Landscaping	1	2	0	2
ENG 114	Prof Research and Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Total	12	10	0	17
Summer - 1st year					
HOR 112	Landscape Design I	2	3	0	3
HOR 114	Landscape Construction	2	2	0	3
HOR 260	Plant Materials II	2	2	0	3
	Total	6	7	0	9
Fall - 2nd year					
HOR 170	Horticulture Computer Apps	1	3	0	2
HOR 213	Landscape Design II	2	2	0	3
HOR 215	Landscape Irrigation	2	2	0	3
HOR 134	Greenhouse Operations	2	2	0	3
HOR 273	Hort. Bus. Mgmt.	3	0	0	3
Hort/Turf Elective OR Co-Op Work Exp					2
	Total	10	9	0	16
Spring - 2nd year					
HOR 164	Horticulture Pest Management	2	2	0	3
HOR 265	Advanced Plant Materials	1	2	0	2
Humanities/Fine Arts Elective		3	0	0	3
Hort/Turf Elective OR Co-Op Work Exp		0			2
Social/Behavioral Science Elective		3	0	0	3
	Total	9	4	0	13
	Grand Total	48	39	0	70

HORTICULTURE TECHNOLOGY Cert. Prog. (C15240)

MAJOR COURSES:			**SHC**
HOR	110	Intro to Landscaping	2
HOR	118	Equipment Op & Maint	2
HOR	134	Greenhouse Operations	3
HOR	164	Hort Pest Management	3
HOR	168	Plant Propagation	3
HOR	215	Landscape Irrigation	3
HOR	255	Interiorscapes	2

Total Credit Hours Required 18

Horticulture Technology Cert. Prog. (C15240) Sug. Seq.

Fall - 1st year					
HOR 110	Intro to Landscaping	1	2	0	2
HOR 118	Equipment Op & Maint	1	3	0	2
HOR 134	Greenhouse Operations	2	2	0	3
HOR 215	Landscape Imgation	2	2	0	3
	Total	6	9	0	10
Spring - 1st year					
HOR 164	Horticulture Pest Management	2	2	0	3
HOR 168	Plant Propagation	2	2	0	3
HOR 255	Interiorscapes	1	2	0	2
	Total	5	6	0	8
	Grand Total	11	15	0	18

HORTICULTURE TECHNOLOGY
Landscape Design
Diploma Program (D1524001)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG 111 Expository Writing 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models 3

MAJOR COURSES :

HOR 110 Intro to Landscaping 2
HOR 112 Landscape Design I 3
HOR 114 Landscape Construction 3
HOR 160 Plant Materials I 3
HOR 162 Applied Plant Science 3
HOR 164 Hort Pest Management 3
HOR 166 Soils & Fertilizers 3
HOR 170 Hort Computer Apps 2
HOR 213 Landscape Design II 3
HOR 215 Landscape Irrigation 3
HOR 260 Plant Materials II 3
HOR 265 Adv Plant Materials 2

Total Credit Hours Required 39

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology - Landscape Design (D1524001)
Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ENG 111	Expository Writing	3	0	0	3
HOR 162	Applied Plant Science	2	2	0	3
HOR 166	Soils and Fertilizers	2	2	0	3
HOR 170	Horticulture Computer Apps	1	3	0	2
HOR 112	Landscape Design I	2	3	0	3
HOR 215	Landscape Irrigation	2	2	0	3
	Total	12	12	0	17
Spring - 1st year					
MAT 115	Mathematical Models	2	2	0	3
HOR 110	Intro to Landscaping	1	2	0	2
HOR 160	Plant Materials I	2	2	0	3
HOR 164	Horticulture Pest Management	2	2	0	3
HOR 265	Advanced Plant Materials	1	2	0	2
	Total	8	10	0	13
Summer - 1st year					
HOR 213	Landscape Design II	2	2	0	3
HOR 114	Landscape Construction	2	2	0	3
HOR 260	Plant Materials II	2	2	0	3
	Total	6	6	0	9
	Grand Total	26	28	0	39

HORTICULTURE TECHNOLOGY
Landscape Management
Diploma Program (D1524002)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG 111 Expository Writing 3

Natural Sciences/Mathematics:

MAT 115 Mathematical Models 3

MAJOR COURSES :

HOR 110 Intro to Landscaping 2
HOR 114 Landscape Construction 3
HOR 116 Landscape Management I 3
HOR 118 Equipment Op & Maint 2
HOR 160 Plant Materials I 3
HOR 162 Applied Plant Science 3

MAJOR COURSES (CONT.):

HOR 164 Hort Pest Management 3
HOR 166 Soils & Fertilizers 3
HOR 215 Landscape Irrigation 3
HOR 260 Plant Materials II 3
HOR 265 Adv Plant Materials 2
Co-op or Turf/Horticulture Elective 2

Please choose from the following:

COE XXX 1-2
HOR 255 3
SPA 120 Spanish for the Workplace 3
TRF 110 Intro Turfgrass Cult & ID 4
TRF 120 Turfgrass Irrigat & Design 4
TRF 125 Turfgrass Computer App 2
TRF 130 Native Flora ID 2
TRF 140 Turfgrass Mgmt Safety 3
TRF 150 Landscape Drafting 2
TRF 151 Intro Landscape Design 3
TRF 152 Landscape Maintenance 3
TRF 210 Turfgrass Eqmt Mgmt 3
TRF 220 Turfgrass Calculations 2
TRF 230 Turfgrass Mgmt Apps 2
TRF 250 Golf /Sport Field Const 4
TRF 260 Adv Turfgrass Mgmt 4

Total Credit Hours Required 37/38

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology - Landscape Management (D1524002)
Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ENG 111	Expository Writing	3	0	0	3
HOR 118	Equipment Op & Maintenance	1	3	0	2
HOR 162	Applied Plant Science	2	2	0	3
HOR 166	Soils and Fertilizers	2	2	0	3
HOR 215	Landscape Irrigation	2	2	0	3
MAT 115	Math Models	2	2	0	3
	Total	12	11	0	17
Spring - 1st year					
HOR 110	Intro to Landscaping	1	2	0	2
HOR 116	Landscape Management I	2	2	0	3
HOR 160	Plant Materials I	2	2	0	3
HOR 164	Horticulture Pest Management	2	2	0	3
HOR 265	Advanced Plant Materials	1	2	0	2
	Co-op or HOR Elective				1/2
	Total	8	10	0	14/15
Summer - 1st year					
HOR 114	Landscape Construction	2	2	0	3
HOR 260	Plant Materials II	2	2	0	3
	Total	4	4	0	6
	Grand Total	24	25	0	37/38

INDUSTRIAL SYSTEMS TECHNOLOGY

A.A.S. Program (A50240)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. Minimum time for completion: Day—four semesters full-time attendance; Evening—eight semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems. Students will learn multi-craft technical skills in blueprint reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered. Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literatured-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
BPR	111	Blueprint Reading	2
CIS	110	Introduction to Computers	3
OR			
CIS	111	Basic PC Literacy	2
ELC	112	DC/AC Electricity	5
ELC	113	Basic Wiring I	4
ELC	115	Industrial Wiring	4
ELC	117	Motors and Controls	4
ELC	118	National Electrical Code	2
ELC	119	NEC Calculations	2
HYD	110	Hydraulics/Pneumatics I	3
ISC	112	Industrial Safety	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MNT	110	Intro to Maint Procedures	2
WLD	112	Basic Welding Processes	2
IST Program Electives			9

Students are required to take a minimum of 9 SHC from the following:

AHR	110	Intro to Refrigeration	5
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
COE	XXX	Co-op Work Experience	1-3
ELC	128	Intro to PLC	3
ELN	229	Industrial Electronics	4
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR			
WLD	115AC	SMAW (Stick) Plate-AC	2
WLD	115BC	SMAW (Stick) Plate-BC	2
WLD	115CC	SMAW (Stick) Plate-CC	1

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of 3 hours Program Elective.

Total Credit Hours Required 66-67

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Industrial Systems Technology • A50240
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
BPR	111	Blueprint Reading	1	2	0	2
ELC	112	DC/AC Electricity	3	6	0	5
ELC	113	Basic Wiring I	2	6	0	4
ELC	118	National Electrical Code	1	2	0	2
ELC	119	NEC Calculations	1	2	0	2
		Total	8	18	0	15
Spring - 1st year						
ELC	115	Industrial Wiring	2	6	0	4
ELC	117	Motors and Controls	2	6	0	4
ENG	111	Expository Writing	3	0	0	3
MAT	115	Mathematical Models	2	2	0	3
	IST Program Elective		3	0	0	3
		Total	12	14	0	17
Summer - 1 year						
Social/Behavioral Science Elective			3	0	0	3
Humanities/Fine Arts Elective			3	0	0	3
		Total	6	0	0	6
Fall - 2nd year						
ISC	112	Industrial Safety	2	0	0	2
MAC	141	Machining Applications I	2	6	0	4
MAC	142	Machining Applications II	2	6	0	4
MNT	110	Intro to Maint Procedures	1	3	0	2
	IST Program Elective		3	0	0	3
		Total	10	15	0	15
Spring - 2nd year						
CIS	111	Basic PC Literacy	1	2	0	2
	OR CIS 110	Introduction to Computers	2	2	0	3
ENG	114	Prof. Research & Reporting (Preferred)	3	0	0	3
	OR	ENG 112 Argument-Based Research	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
HYD	110	Hydraulics/Pneumatics I	2	3	0	3
WLD	112	Basic Welding Processes	1	3	0	2
	IST Program Elective		3	0	0	3
		Total	10/11	8	0	13/14
		Grand Total	46/47	55	0	66/67

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of 3 hours of Program Elective.

Industrial Systems Technology • A50240
Suggested Program Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ELC 113	Basic Wiring I	2	6	0	4
ELC 118	National Electrical Code	1	2	0	2
MAT 115	Mathematical Models	2	2	0	3
	Total	5	10	0	9
Spring - 1st year					
ELC 112	DC/AC Electricity	3	6	0	5
ELC 119	NEC Calculations	1	2	0	2
BPR 111	Blueprint Reading	1	2	0	2
	Total	5	10	0	9
Fall - 2nd year					
ELC 117	Motors and Controls	2	6	0	4
	IST Program Elective	3	0	0	3
	Total	5	6	0	7
Spring - 2nd year					
ELC 115	Industrial Wiring	2	6	0	4
	IST Program Elective	3	0	0	3
	Total	5	6	0	7
Fall - 3rd year					
ENG 111	Expository Writing	3	0	0	3
MNT 110	Intro to Maint Procedures	1	3	0	2
	Social/Behavioral Science Elective	3	0	0	3
	Total	7	3	0	8
Spring - 3rd year					
CIS 111	Basic PC Literacy	1	2	0	2
OR CIS 110	Introduction to Computers	2	2	0	3
ENG 114	Prof. Research & Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
HYD 110	Hydraulics/Pneumatics I	2	3	0	3
	Total	6/7	5	0	8/9
Fall - 4th year					
ISC 112	Industrial Safety	2	0	0	2
MAC 141	Machining Applications I	2	6	0	4
WLD 112	Basic Welding Processes	1	3	0	2
	Total	5	9	0	8
Spring - 4th year					
MAC 142	Machining Applications II	2	6	0	4
	IST Program Elective	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	8	6	0	10
	Grand Total	46/47	55	0	66/67

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of 3 hours of program elective.

Program electives: The student is required to take a minimum of 9 credits from this list.

AHR 110	Intro to Refrigeration	2	6	0	5
AHR 112	Heating Technology	2	4	0	4
AHR 113	Comfort Cooling	2	4	0	4
COE	Co-op Work Experience	0	0	10	1/3
ELC 128	Intro to PLC	2	3	0	3
ELN 229	Industrial Electronics	2	4	0	4
MAC 122	CNC Turning	1	3	0	2
MAC 124	CNC Milling	1	3	0	2
MAC 222	Advanced CNC Turning	1	3	0	2
MAC 224	Advanced CNC Milling	1	3	0	2
WLD 110	Cutting Processes	1	3	0	2
WLD 115	SMAW (Stick) Plate	2	9	0	5
WLD 115AC	SMAW (Stick) Plate-AC	1	3	0	2
WLD 115BC	SMAW (Stick) Plate-BC	1	3	0	2
WLD 115CC	SMAW (Stick) Plate-CC	0	3	0	1

INFORMATION SYSTEMS SECURITY
A.A.S. Program (A25270)

Courses required to meet graduation requirements in this curriculum are offered during day and evening hours. The Associate in Applied Science is awarded graduates of this curriculum.

Information Systems Security covers a broad expanse of technology concepts. This curriculum provides individuals with the skills required to implement effective and comprehensive information security controls. Course work includes networking technologies, operating systems administration, information policy, intrusion detection, security administration, and industry best practices to protect data communications. Graduates should be prepared for employment as security administrators. Additionally, they will acquire the skills that allow them to pursue security certifications.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	113	Literatured-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
OR			
MAT	161	College Algebra	3
MAT	161A	College Albegra Lab	1
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
CTS	115	Info Sys Business Concept	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	175	Wireless Technology	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	160	Secure Admin I	3
SEC	210	Intrusion Detection	3
SEC	220	Defense-In-Depth	3
SEC	240	Wireless Security	3
SEC	289	Security Capstone Project	3

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of SEC 240.

Total Credit Hours Required: 73

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Information Systems Security • A25270
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
CIS 115	Intro to Prog & Logic	2	3	0	3
SEC 110	Security Concepts	2	2	0	3
NET 125	Networking Basics	1	4	0	3
DBA 110	Database Concepts & Apps	2	3	0	3
	Total	9	14	0	15
Spring - 1st year					
NET 126	Routing Basics	1	4	0	3
CTS 115	Info Sys Business Concepts	3	0	0	3
NOS 110	Operating System Concepts	2	3	0	3
ENG 111	Expository Writing	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	12	7	0	15
Summer - 1st year					
ENG 114	Prof Researach & Reporting	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
MAT 140	Survey of Math	3	0	0	3
OR	MAT 161 College Algebra	3	0	0	3
MAT 140A	Survey of Math Lab	0	2	0	1
OR	MAT 161 College Algebra	3	0	0	3
	MAT 161A College Albegra Lab	0	2	0	1
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
SEC 160	Secure Admin I	2	2	0	3
NET 175	Wireless Technology	2	2	0	3
NET 225	Routing & Switching I (1st eight week)	1	4	0	3
NET 226	Routing & Switching II (2nd eight week)	1	4	0	3
SEC 220	Defense-in-Depth	2	2	0	3
	Total	8	14	0	15
Spring - 2nd year					
NOS 120	Linux/UNIX Single User	2	2	0	3
NOS 130	Windows Single User	2	2	0	3
SEC 150	Secure Communications	2	2	0	3
SEC 210	Intrusion Detection	2	2	0	3
SEC 240	Wireless Security	2	2	0	3
OR	COE Co-op Option				3
SEC 289	Security Capstone Project	1	4	0	3
	Total	11	14	0	18
	Grand Total	49	51	0	73

INFORMATION SYSTEMS SECURITY
Network Security Certificate • Cert. Prog. (C2527001)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
SEC	110	Security Concepts	3
SEC	160	Secure Admin I	3
SEC	210	Intrusion Detection	3
SEC	220	Defense-In-Depth	3

Total Credit Hours Required: 18

Information Systems Security -
Network Security Cert. (C2527001) Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
SEC 110	Security Concepts	2	2	0	3
NET 125	Networking Basics	1	4	0	3
	Total	3	6	0	6
Spring - 1st year					
NET 126	Routing Basics	1	4	0	3
	Total	1	4	0	3
Fall - 2nd year					
SEC 160	Secure Admin I	2	2	0	3
SEC 220	Defense-In-Depth	2	2	0	3
	Total	4	4	0	6
Spring - 2nd year					
SEC 210	Intrusion Detection	2	2	0	3
	Total	2	2	0	3
	Grand Total	10	16	0	18

INFORMATION SYSTEMS SECURITY
Operating System Security Certificate
Certificate Program (C2527003)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3

Total Credit Hours Required 18

Information Systems Security
Operating Security Certificate (C2527003) Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
SEC 110	Security Concepts	3	0	0	3
NET 125	Networking Basics	1	4	0	3
NOS 110	Operating System Concepts	2	3	0	3
	Total	6	7	0	9
Spring - 1st year					
SEC 150	Secure Communication	2	2	0	3
NOS 120	Linux/UNIX Single User	2	2	0	3
NOS 130	Windows Single User	2	2	0	3
	Total	6	6	0	9
	Grand Total	12	13	0	18

INFORMATION SYSTEMS SECURITY
Wireless Security Certificate
Certificate Program (C2527004)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	175	Wireless Technology	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	240	Wireless Security	3

Total Credit Hours Required 18

Information Systems Security
Wireless Security Certificate (C2527004) Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
SEC 110	Security Concepts	2	2	0	3
NET 125	Networking Basics	1	4	0	3
	Total	3	6	0	6
Spring - 1st year					
NET 126	Routing Basics	1	4	0	3
SEC 150	Secure Communication	2	2	0	3
	Total	3	6	0	6
Fall - 2nd year					
NET 175	Wireless Technology	2	2	0	3
	Total	2	2	0	3
Spring - 2nd year					
SEC 240	Wireless Security	2	2	0	3
	Total	2	2	0	3
	Grand Total	10	16	0	18

MECHANICAL ENGINEERING TECHNOLOGY
A.A.S. Program (A40320)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: four semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Mechanical Engineering Technology curriculum prepares graduates for employment as technicians in the diversified mechanical and manufacturing engineering fields. Mechanical Engineering technicians assist in design, development, testing, process design and improvement, and troubleshooting and repair of engineered systems. Emphasis is placed on the integration of theory and hands-on application of engineering principles. In addition to course work in engineering graphics, engineering fundamentals, materials and manufacturing processes, mathematics, and physics, students will study 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.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3

Humanities/Fine Arts:

Elective	3

Natural Sciences/Mathematics:

MAT	121	Algebra/Trigonometry I	3

Social/Behavioral Sciences:

Elective	3

MAJOR COURSES:

CSC	134	C++ Programming	3
DFT	111	Technical Drafting I	2
DFT	111A	Technical Drafting I Lab	1
DFT	151	CAD I	3
DFT	152	CAD II	3
MAT	122	Algebra/Trigonometry II	3
MEC	111	Machine Processes I	3
MEC	180	Engineering Materials	3
MEC	237	Instr and Control Systems	4
MEC	250	Statics & Strength of Mat	5
MEC	265	Fluid Mechanics	3
MEC	270	Machine Design	4
MEC	272	Dynamics	3
PHY	131	Physics-Mechanics	4
PHY	132	Physics-Elec & Magnetism	4
WLD	112	Basic Welding Processes	2

Co-op Option: Qualified students may elect to take up to 4 credit hours of cooperative education in place of MEC 270.

Total Credit Hours Required 65

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Mechanical Engineering Technology • A40320
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CSC 134	C++ Programming	2	3	0	3
DFT 151	CAD I	2	3	0	3
ENG 111	Expository Writing	3	0	0	3
MAT 121	Algebra/Trigonometry I	2	2	0	3
MEC 180	Engineering Materials	2	3	0	3
	Total	11	11	0	15
Spring - 1st year					
DFT 111	Technical Drafting I	1	3	0	2
DFT 111A	Technical Drafting I Lab	0	3	0	1
ENG 114	Prof. Research and Reporting (Preferred)	3	0	0	3
OR	ENG 112 Argument-Based Research	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
MAT 122	Algebra/Trigonometry II	2	2	0	3
WLD 112	Basic Welding	1	3	0	2
	Humanities/Fine Arts Elective	3	0	0	3
	Total	10	11	0	14
Summer - 1st year					
	Social/Behavioral Science Elective	3	0	0	3
	Total	3	0	0	3
Fall - 2nd year					
DFT 152	CAD II	2	3	0	3
MEC 237	Control Systems	3	2	0	4
MEC 250	Statics & Strength of Mat	4	3	0	5
PHY 131	Physics-Mechanics	3	2	0	4
	Total	12	10	0	16
Spring - 2nd year					
MEC 111	Machine Processes	2	3	0	3
MEC 265	Fluid Mechanics	2	2	0	3
MEC 270	Machine Design	3	3	0	4
MEC 272	Dynamics	2	2	0	3
PHY 132	Physics-Elec & Magnetism	3	2	0	4
	Total	12	12	0	17
	Grand Total	48	44	0	65

Co-op Option: Qualified students may elect to take up to 4 credit hours of cooperative education in place of MEC 270.

MEDICAL OFFICE ADMINISTRATION
Diploma Program (D25310)

This curriculum prepares individuals for employment in medical and other health-care related offices. Course work will include medical terminology; information systems; office management; medical coding, billing and insurance; legal and ethical issues; and formatting and word processing. Students will learn administrative and support functions and develop skills applicable in medical environments. Employment opportunities are available in medical and dental offices, hospitals, insurance companies, laboratories, medical supply companies, and other health-care related organizations.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
CIS	110	Introduction to Computers	3
HMT	110	Intro to Healthcare Mgt	3
MED	114	Prof Interaction in HC	1
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	148	Med Coding Billing & Insu	3
OST	149	Medical Legal Issues	3
OST	164	Text Editing Applications	3
OST	243	Med Office Simulation	3
OST	247	Procedural Coding	2
OST	248	Diagnostic Coding	2
OST	281	Emer Issues in Med Ofc	3
Total Credit Hours Required:			**43**

DEVELOPMENTAL COURSE REQUIREMENTS			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Medical Office Administration • D25310
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
HMT	110	Intro to Healthcare Mgt	3	0	0	3
MED	121	Medical Terminology I (1st Eight Wks)	3	0	0	3
MED	122	Medical Terminology II (2nd Eight Wks)	3	0	0	3
OST	132	Keyboard Skill Building	1	2	0	2
OST	136	Word Processing	2	2	0	3
OST	164	Text Editing Applications	3	0	0	3
		Total	15	4	0	17
Spring - 1st year						
CIS	110	Introduction to Computers	2	2	0	3
MED	114	Prof Interac in Heal Care	1	0	0	1
OST	148	Med Coding Billing & Insu (1st 8 Wks)	3	0	0	3
OST	243	Med Office Simulation (2nd 8 Wks)	2	2	0	3
OST	247	Procedure Coding	1	2	0	2
OST	248	Diagnostic Coding	1	2	0	2
OST	281	Emer Issues in Med Ofc	3	0	0	3
		Total	13	8	0	17
Summer - 1st year						
OST	149	Medical Legal Issues	3	0	0	3
ENG	111	Expository Writing	3	0	0	3
		Social/Behavioral Science Elective	3	0	0	3
		Total	9	0	0	9
		Grand Total	37	12	0	43

NETWORKING TECHNOLOGY
A.A.S. Program (A25340)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. Minimum time for completion: Day--five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

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.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:
ENG 111 Expository Writing 3
ENG 114 Prof Research & Reporting 3
OR
ENG 113 Literature-Based Research 3

Humanities/Fine Arts:
Elective 3

Natural Sciences/Mathematics:
MAT 140 Survey of Mathematics 3
MAT 140A Survey of Mathematics Lab 1
OR
MAT 161 College Algebra 3
MAT 161A College Algebra Lab 1

Social/Behavioral Sciences:
Elective 3

MAJOR COURSES:
CIS 110 Introduction to Computers 3
CIS 115 Intro to Prog & Logic 3
COE XXX Co-op Work Experience 2
CTS 115 Info Sys Business Concept 3
CTS 120 Hardware/Software Support 3
CTS 286 Network Support 3
DBA 110 Database Concepts 3
NET 125 Networking Basics 3
NET 126 Routing Basics 3
NET 225 Routing & Switching I 3
NET 226 Routing & Switching II 3
NET 240 Network Design 3
NOS 110 Operating System Concepts 3
NOS 120 Linux/UNIX Single User 3
NOS 130 Windows Single User 3
SEC 110 Security Concepts 3

Server Operating System Electives 6
Students must select one set of courses from the following:
NOS 220 Linux/UNIX Admin I 3
NOS 221 Linux/UNIX Admin II 3
OR
NOS 230 Windows Admin I 3
NOS 231 Windows Admin II 3

Networking Elective 3
Students must select one course from the following:
CIS 277 Network Design & Imp 3
NET 175 Wireless Technology 3
NET 270 Building Scalable Netwks 3
NET 271 Remote Access Networks 3
NET 272 Multi-Layer Networks 3
NET 273 Internetworking Support 3
NOS 222 Linux/UNIX Admin III 3
NOS 232 Windows Admin III 3
NOS 240 Novell Admin I 3
NOS 244 Operating System -- AS/400 3
SEC 150 Secure Communications 3
SEC 160 Secure Admin I 3

Total Credit Hours Required 72

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DEVELOPMENTAL COURSE REQUIREMENTS*
CTS 080 Computing Fundamentals 3
ENG 090 Composition Strategies 3
MAT DMA 010, DMA 020, DMA 030, DMA 040, DMA 050 5
RED 090 Improved College Reading 4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Networking Technology • A25340
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
NOS 110	Operating System Concepts	2	3	0	3
NET 125	Networking Basics	1	4	0	3
SEC 110	Security Concepts	2	2	0	3
CIS 115	Intro to Prog & Logic	2	3	0	3
CIS 110	Introduction to Computers	2	2	0	3
	Total	9	14	0	15
Spring - 1st year					
CTS 120	Hardware/Software Support	2	3	0	3
NET 126	Routing Basics	1	4	0	3
NET 240	Network Design	3	0	0	3
NOS 120	Linux/UNIX Single User	2	2	0	3
NOS 130	Windows Single User	2	2	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	13	11	0	18
Summer - 1st year					
ENG 111	Expository Writing	3	0	0	3
MAT 140	Survey of Mathematics	3	0	0	3
MAT 140A	Survey of Mathematics Lab	0	2	0	1
	OR MAT 161 College Alegbra	3	0	0	3
	and MAT 161A College Alegbra Lab	0	2	0	1
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	2	0	10
Fall - 2nd year					
NET 225	Routing & Switching I (First eight weeks)	1	4	0	3
NET 226	Routing & Switching II (Sec eight wks)	1	4	0	3
DBA 110	Database Concepts	2	3	0	3
NOS 230	Windows Admin I	2	2	0	3
	OR NOS 220 Linux/UNIX Admin I	2	2	0	3
	Total	6	13	0	12
Spring - 2nd year					
CTS 286	Network Support	2	2	0	3
	Networking Elective	3	0	0	3
COE	Co-op Work Experience	0	0	20	2
ENG 114	Prof Research & Reporting	3	0	0	3
	OR ENG 113 Literature-Based Research	3	0	0	3
CTS 115	Info Sys Business Concept	3	0	0	3
NOS 231	Windows Admin II	2	2	0	3
	OR NOS 221 Linux/UNIX Admin II	2	2	0	3
	Total	13	4	20	17
	Grand Total	50	44	20	72

NETWORKING TECHNOLOGY
CCNA - Cisco Certified Network Associate Certificate Program (C2534001)

MAJOR COURSES:			SHC
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing & Switching I	3
NET	226	Routing & Switching II	3

Total Credit Hours Required 12

Networking Technology - CCNA Cert. (C2534001) Suggested Seq. Day

Fall - 1st year						
NET 125	Networking Basics		1	4	0	3
		Total	1	4	0	3
Spring - 1st year						
NET 126	Routing Basics		1	4	0	3
		Total	1	4	0	3
Fall - 2nd year						
NET 225	Routing & Switching I	(First eight weeks)	1	4	0	3
NET 226	Routing & Switching II	(Second eight weeks)	1	4	0	3
		Total	2	8	0	6
		Grand Total	4	16	0	12

Networking Technology - CCNA Cert. (C2534001) Suggested Seq. Night

Fall - 1st year						
NET 125	Networking Basics		1	4	0	3
NET 126	Routing Basics		1	4	0	3
		Total	2	8	0	6
Spring - 1st year						
NET 225	Routing & Switching I	(First eight weeks)	1	4	0	3
NET 226	Routing & Switching II	(Second eight weeks)	1	4	0	3
		Total	2	8	0	6
		Grand Total	4	16	0	12

NETWORKING TECHNOLOGY
CCNP - Cisco Certified Network Professional Certificate Program (C2534002)
(Students must have CCNA certificate or equivalent.)

MAJOR COURSES:			SHC
NET	270	Building Scalable Networks	3
NET	271	Remote Access Networks	3
NET	272	Multi-Layer Networks	3
NET	273	Internetworking Support	3

Total Credit Hours Required 12

Networking Technology - CCNP Certificate (C2534002) - Suggested Sequence Day

Fall - 1st year						
NET 270	Building Scalable Networks		1	4	0	3
		Total	1	4	0	3
Spring - 1st year						
NET 271	Remote Access Networks		1	4	0	3
		Total	1	4	0	3
Fall - 2nd year						
NET 272	Multi-Layer Networks		1	4	0	3
		Total	1	4	0	3
Spring - 2nd year						
NET 273	Internetworking Support		1	4	0	3
		Total	1	4	0	3
		Grand Total	4	16	0	12

NETWORKING TECHNOLOGY
Operating Systems Certificate Program (C2534004)

MAJOR COURSES:			SHC
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
NOS	240	Novell Admin I	3
NOS	244	Operating System -- AS/400	3

Total Credit Hours Required 18

Operating Systems Certificate (C2534004) - Suggested Sequence

Fall - 1st year						
NOS 110	Operating Systems Concepts		2	3	0	3
		Total	2	3	0	3
Spring - 1st year						
NOS 130	Windows Single User		2	2	0	3
NOS 120	Linux/UNIX Single User		2	2	0	3
		Total	4	4	0	6
Fall - 2nd year						
NOS 230	Windows Admin I		2	2	0	3
NOS 240	Novell Admin I		2	2	0	3
		Total	4	4	0	6
Spring - 2nd year						
NOS 244	Operating System - ASS400		2	2	0	3
		Total	2	2	0	3
		Grand Total	12	13	0	18

NETWORKING TECHNOLOGY
RED HAT Certificate Program (C2534005)

MAJOR COURSES:			SHC
NOS	110	Operating System Concepts	3
NOS	120	Linux/UNIX Single User	3
NOS	220	Linux/UNIX Admin I	3
NOS	221	Linux/UNIX Admin II	3
NOS	222	Linux/UNIX Admin III	3

Total Credit Hours Required 15

Red Hat Certificate (C2534005) - Suggested Sequence

Fall - 1st year						
NOS 110	Operating System Concepts		2	3	0	3
		Total	2	3	0	3
Spring - 1st year						
NOS 120	Linux/UNIX Single User		2	2	0	3
		Total	2	2	0	3
Fall - 2nd year						
NOS 220	Linux/UNIX Admin I		2	2	0	3
		Total	2	2	0	3
Spring - 2nd year						
NOS 221	Linux/UNIX Admin II		2	2	0	3
		Total	2	2	0	3
Fall - 3rd year						
NOS 222	Linux/UNIX Admin III		2	2	0	3
		Total	2	2	0	3
		Grand Total	10	11	0	15

NETWORKING TECHNOLOGY
Windows Server Certificate Program (C2534003)

MAJOR COURSES:			SHC
NOS	110	Operating System Concepts	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
NOS	231	Windows Admin II	3
NOS	232	Windows Admin III	3

Total Credit Hours Required 15

NetTech - Windows Server Certificate (C2534003) Sug.Seq.

Fall - 1st year						
NOS 110	Operating System Concepts		2	3	0	3
		Total	2	3	0	3
Spring - 1st year						
NOS 130	Windows Single User		2	2	0	3
		Total	2	2	0	3
Fall - 2nd year						
NOS 230	Windows Admin I		2	2	0	3
		Total	2	2	0	3
Spring - 2nd year						
NOS 231	Windows Admin II		2	2	0	3
		Total	2	2	0	3
Fall - 3rd year						
NOS 232	Windows Admin III		2	2	0	3
		Total	2	2	0	3
		Grand Total	10	11	0	15

OFFICE ADMINISTRATION
A.A.S. Program (A25370)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. The Associate in Applied Science Degree is awarded graduates of this curriculum. A certificate is awarded graduates of the Office Administration certificate option.

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.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	161	College Algebra	3
MAT	161A	College Algebra Lab	1
Humanities/Fine Arts:			
Elective			3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
ACC	120	Prin of Financial Acct	4
BUS	115	Business Law I	3
BUS	260	Business Communication	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	137	Office Software Applicat	3
OST	153	Office Finance Solutions	2
OST	164	Text Editing Applications	3
OST	165	Adv Text Editing Apps	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3
OST	284	Emerging Technologies	2
OST	286	Professional Development	3
OST	289	Administrative Office Mgt	3
WEB	110	Internet/Web Fundamentals	3
OR			
COE	XXX	Co-op Work Experience	3

Co-op Option: Qualified students may elect to take up to 3 credit hours of cooperative education in place of WEB 110.

Total Credit Hours Required 64-65

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
OST	080	Keyboarding Literacy	2
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration • A25370
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
ENG 111	Expository Writing	3	0	0	3
OST 132	Keyboard - Skill Building	1	2	0	2
OST 164	Text Editing Applications	3	0	0	3
OST 136	Word Processing	2	2	0	3
	Total	11	6	0	14
Spring - 1st year					
OST 184	Records Management	2	2	0	3
CTS 130	Spreadsheet Software	2	2	0	3
ENG 113	Literature - Based Research	3	0	0	3
OR ENG 114	Prof Research & Reporting	3	0	0	3
OST 284	Emerging Technologies	1	2	0	2
OST 137	Office Software Applicat	2	2	0	3
OST 181	Intro to Office Systems	2	2	0	3
	Total	12	10	0	17
Fall - 2nd year					
ACC 120	Princ of Financial Acct	3	2	0	4
BUS 260	Business Communication	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
OR MAT 161	College Algebra	3	0	0	3
and MAT 161A	College Albegra Lab	0	2	0	1
OST 165	Adv Text Editing Apps	2	2	0	3
OST 286	Professional Development	3	0	0	3
	Total	13/14	6	0	16/17
Spring - 2nd year					
OST 289	Administrative Office Mgt	2	2	0	3
WEB 110	Internet/Web Fundamentals	2	2	0	3
OR	Co-op Work Experience	0	0	30	3
OST 153	Office Finance Solutions	1	2	0	2
BUS 115	Business Law I	3	0	0	3
	Humanities/Fine Art Elective	3	0	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Total	14	6	0/30	17
	Grand Total	50/51	28	0/30	64/65

OFFICE ADMINISTRATION
Diploma Program (D25370)

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Expository Writing	3
ENG	113	Literature - Based Research	3
	OR ENG 114	Prof Research & Reporting	3

MAJOR COURSES:

BUS	115	Business Law I	3
CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet Software	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	137	Office Software Applicat	3
OST	153	Office Finance Solutions	2
OST	164	Text Editing Applications	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3
WEB	110	Internet/Web Fundamentals	3

Total Credit Hours Required: 37

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	070	Basic Language Skills	3
OST	080	Keyboarding Literacy	3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration - Diploma (D25370)
Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
OST 132	Keyboarding Skill Building	1	2	0	2
OST 136	Word Processing	2	2	0	3
OST 164	Text Editing Applications	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
	Total	11	6	0	14
Spring - 1st year					
OST 181	Intro to Office Systems	2	2	0	3
OST 184	Records Management	2	2	0	3
OST 137	Office Software Applicat	2	2	0	3
OST 153	Office Finance Solutions	1	2	0	2
CTS 130	Spreadsheet Software	2	2	0	3
WEB 110	Internet/Web Fundamentals	2	2	0	3
	Total	11	12	0	17
Summer - 1st year					
ENG 113	Literature - Based Research	3	0	0	3
	OR ENG 114 Prof Research & Reporting	3	0	0	3
BUS 115	Business Law I	3	0	0	3
	Total	6	0	0	6
	Grand Total	28	18	0	37

OFFICE ADMINISTRATION
Certificate Program (C25370)

MAJOR COURSES: **SHC**

CIS	110	Introduction to Computers	3
OST	132	Keyboard Skill Building	2
OST	136	Word Processing	3
OST	164	Text Editing Applications	3
OST	181	Intro to Office Systems	3
OST	184	Records Management	3

Total Credit Hours Required: 17

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	070	Basic Language Skills	3
OST	080	Keyboarding Literacy	3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration - Certificate (C25370)
Suggested Sequence

Fall - 1st year					
CIS 110	Introduction to Computers	2	2	0	3
OST 132	Keyboarding Skill Building	1	2	0	2
OST 136	Word Processing	2	2	0	3
OST 164	Text Editing Applications	3	0	0	3
	Total	8	6	0	11
Spring - 1st year					
OST 181	Intro to Office Systems	2	2	0	3
OST 184	Records Management	2	2	0	3
	Total	4	4	0	6
	Grand Total	12	10	0	17

OFFICE ADMINISTRATION
Microsoft Office Specialist Certificate (MOS)
Certificate Program (C2537001)

MAJOR COURSES: **SHC**

CIS	110	Introduction to Computers	3
CTS	130	Spreadsheet	3
OST	136	Word Processing	3
OST	137	Office Software Applicat	3

Total Credit Hours Required: 12

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Office Administration - Microsoft Office Specialist - Certificate (C2537001) - Suggested Sequence

Fall - 1st year					
CIS 110	Introduction to Computers	2	3	0	3
OST 136	Word Processing	2	2	0	3
	Total	4	5	0	6
Spring - 1st year					
CTS 130	Spreadsheet Software	2	2	0	3
OST 137	Office Software Applicat	2	2	0	3
	Total	4	4	0	6
	Grand Total	8	9	0	12

PHOTOGRAPHIC TECHNOLOGY
A.A.S. Program (A30280)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. The Photographic Technology curriculum offers training in photographic techniques and their application in professional photographic disciplines. Where offered, students will receive comprehensive course work in four areas of concentration: Biomedical Photography, Photojournalism, Commercial Photography and Portrait Studio Management. Special emphasis is placed on developing skills in the following areas: fundamentals of camera systems, lighting, photographic process, digital imaging, design and business practices. Graduates should qualify for entry level jobs in the diverse photographic industry. Employment opportunities exist in the following areas: commercial photography, photojournalism, biomedical photography, portrait photography, equipment sales, photographic laboratories, and imaging technologies, depending upon courses offered and completed.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
OR			
MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1
OR			
A higher Math			3/4
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
PHO	110	Fund of Photography	5
PHO	113	History of Photography	3
PHO	115	Basic Studio Lighting	4
PHO	120	Intermediate Photography	4
PHO	139	Intro to Digital Imagining	2
PHO	150	Portfolio Development I	4
PHO	216	Documentary Photography	4
PHO	217	Photojournalism I	4
PHO	219	Digital Applications	2
PHO	220	Business of Photography	3
PHO	224	Multimedia Producations	3
PHO	226	Portraiture	4
PHO	235	Commercial Photography	4
PHO	250	Portfolio Development II	4
PHO Program Electives			1-3
Students are required to take a minimum of 1 SHC from the following:			
BUS	110	Introduction to Business	3
BUS	125	Personal Finance	3
BUS	137	Principles of Management	3
BUS	139	Entrepreneurship I	3
CIS	110	Introduction to Computers	3
COE	XXX	Co-op Work Experience	1-3

OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**67-70**

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Photographic Technology • A30280
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
ENG 111	Expository Writing	3	0	0	3
MAT 115	Mathematical Models	2	2	0	3
OR	MAT 140 Survey of Mathematics	3	0	0	3
and	MAT 140A Survey of Mathematics Lab	0	2	0	1
OR	a higher Math				
PHO 110	Fundamentals of Photography	3	6	0	5
PHO 139	Intro to Digital Imaging	1	3	0	2
	Total	10/11	11	0	14/15
Spring - 1st year					
PHO 115	Basic Studio Lighting	2	6	0	4
PHO 120	Intermediate Photography	2	4	0	4
PHO 219	Digital Applications	1	3	0	2
PHO 220	Business of Photography	3	0	0	3
PHO 224	Multimedia Productions	2	3	0	3
	Total	10	16	0	16
Summer - 1st year					
ENG 113	Literature - Based Research	3	0	0	3
OR	ENG 114 Prof Research and Reporting	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Social/Behavioral Science Elective	3	0	0	3
	Total	9	0	0	9
Fall - 2nd year					
PHO 150	Portfolio Development I	3	3	0	4
PHO 217	Photojournalism I	1	6	0	4
PHO 226	Portraiture	3	3	0	4
PHO 235	Commercial Photography	2	4	0	4
	Total	9	16	0	16
Spring - 2nd year					
PHO 113	History of Photography	3	0	0	3
PHO 216	Documentary Photography	2	4	0	4
PHO 250	Portfolio Development II	2	4	0	4
	Program Elective				1/3
	Total	7	8	0	12/14
	Grand Total	45/46	51	0	67/70

Photographic Technology Certificate • (C30280)

MAJOR COURSES:			SHC
PHO	110	Fund of Photography	5
PHO	115	Basic Studio Lighting	4
PHO	139	Intro to Digital Imagining	2
PHO	219	Digital Applications	2
PHO	224	Multimedia Producations	3
Total Credit Hours Required			**16**

Photographic Technology Certificate • (C30280)
Suggested Program Sequence Evening

Fall - 1st year					
PHO 110	Fund of Photography	3	6	0	5
PHO 139	Intro to Digital Imaging	1	3	0	2
	Total	4	9	0	7
Spring - 1st year					
PHO 219	Digital Applications	1	3	0	2
	Total	1	3	0	2
Fall - 2nd year					
PHO 115	Basic Studio Lighting	2	6	0	4
	Total	2	6	0	4
Spring - 2nd year					
PHO 224	Multimedia Productions	2	3	0	3
	Total	2	3	0	3
	Grand Total	9	21	0	16

POLYSOMNOGRAPHY
A.A.S. Program (A45670)

Courses required to meet graduation requirements in this curriculum are offered during day hours only with clinicals in the evenings. Minimum time for completion: four semesters full-time attendance. The Associate of Applied Science degree is awarded graduates of this curriculum.

The Polysomnography curriculum prepares individuals, working in conjunction with a physician, to perform and interpret sleep studies and to provide comprehensive clinical evaluations that are required for the diagnosis of sleep related disorders. Students will acquire the knowledge and skills necessary to perform sleep studies, including recording and interpreting events observed during sleep. Treatment of sleep related disorders and patient education focused on healthy sleep habits will also be discussed. Graduates of accredited programs may be eligible to apply to take the examination offered by the Board of Registered Polysomnographic Technologists. Employment opportunities may be found in hospitals and freestanding sleep centers.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
CIS	110	Introduction to Computers	3
ELC	111	Intro to Electricity	3
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
PSG	110	Intro to Polysomnography	4
PSG	111	Neuro/Cardiopulmonary A&P	4
PSG	112	PSG Fundamentals	3
PSG	210	Polysomnography I	7
PSG	211	Polysomnography II	7
PSG	212	Infant/Pediatric PSG	4
PSG	213	Case Study/Exam Review	1
PSG	214	PSG Clinical Apps I	1
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**66**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Polysomnography • A45670
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ACA	111	College Student Success	1	0	0	1
ENG	111	Expository Writing	3	0	0	3
MED	121	Medical Terminology I	3	0	0	3
MAT	115	Mathematical Models	2	2	0	3
PSG	110	Intro to Polysomnography	3	2	0	4
		Total	12	4	0	14
Spring - 1st year						
MED	122	Medical Terminology II	3	0	0	3
CIS	110	Intro to Computers	2	2	0	3
ELC	111	Intro to Electricity	2	2	0	3
PSG	111	Neuro/CP A&P	4	0	0	4
PSG	112	Fundamentals	3	0	0	3
		Total	14	4	0	16
Summer - 1st year						
MED	118	Medical Law and Ethics	2	0	0	2
ENG	114	Prof Research & Reporting	3	0	0	3
	OR	ENG 112 Argument-Based Research	3	0	0	3
	OR	ENG 113 Literature-Based Research	3	0	0	3
		Humanities/Fine Arts Elective	3	0	0	3
		Total	8	0	0	8
Fall - 2nd year						
PSG	210	Polysomnography I	3	2	9	7
PSG	214	PSG Clinical Apps I	0	2	0	1
		Social Behavioral/Science Elective	3	0	0	3
		Total	6	4	9	11
Spring - 2nd year						
PSG	211	Polysomnography II	2	6	9	7
PSG	212	Infant/Pediatric PSG	3	2	0	4
PSG	213	Exam Review/Case Studies	0	3	0	1
		Total	5	11	9	12
		Grand Total	45	23	18	61

Note: Students must complete BIO 163, Basic Anat & Physiology 5 credit hours, prior to admission into the program.

POLYSOMNOGRAPHY
Certificate Program (C45650)

Courses required to meet graduation requirements in this curriculum are offered during day hours, clinicals are offered in the evening hours. Minimum time for completion: three semesters part-time attendance. A certificate is awarded graduates of this curriculum.

MAJOR COURSES:			SHC
*PSG	189	Polysomnog Transition	3
PSG	210	Polysomnography I	7
PSG	211	Polysomnography II	7

*Credit for course may be earned by successfully completing the Polysomnography Entrance Test.

Total Credit Hours Required 17

Polysomnography Certificate • C45650 Suggested Seq.

Summer - 1st year						
*PSG	189	Polysomnog Transition	1	3	3	3
		Total	1	3	3	3
Fall - 1st year						
PSG	210	Polysomnography I	3	2	9	7
		Total	3	2	9	7
Spring - 1st year						
PSG	211	Polysomnography II	2	6	9	7
		Total	2	6	9	7
		Grand Total	6	11	21	17

RADIOGRAPHY
A.A.S. Program (A45700)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum.

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body. Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology. Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

GENERAL EDUCATION COURSES:			**SHC**
English/Communications:			
ENG	111	Expository Writing	3
English Elective			3
Students are required to take one (1) course from the following:			
ENG	112	Argument-Based Research	3
ENG	113	Literature-Based Research	3
ENG	114	Prof Research & Reporting	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
BIO	168	Anatomy and Physiology I	4
BIO	169	Anatomy and Physiology II	4
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
RAD	110	Rad Intro & Patient Care	3
RAD	111	Rad Procedures I	
RAD	112	RAD Procedures II	4
RAD	121	Radiographic Imaging I	3
RAD	122	Radiographic Imaging II	2
RAD	131	Radiographic Physics I	2
RAD	151	RAD Clinical Ed I	2
RAD	161	Rad Clinical Ed II	5
RAD	171	Rad Clinical Ed III	4
RAD	211	Rad Procedures III	3
RAD	231	Radiographic Physics II	2
RAD	241	Radiobiology/Protection	2
RAD	245	Image Analysis	2
RAD	251	Rad Clinical Ed IV	7
RAD	261	Rad Clinical Ed V	7
RAD	271	Radiography Capstone	1
Total Credit Hours Required			**73**

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT		DMA 010, DMA 020, DMA 030, DMA 040	4
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Radiography Program • A45700
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
BIO 168	Anat. & Physiology	3	3	0	4
ENG 111	Expository Writing	3	0	0	3
PSY 150	General Psychology	3	0	0	3
	Total	9	3	6	10
Spring - 1st year					
BIO 169	Anat. & Physiology II	3	3	0	4
ENG 112	Argument Based Research (Preferred)	3	0	0	3
OR ENG 113	Literature Based Research	3	0	0	3
OR ENG 114	Prof Research & Reporting	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	9	3	0	10
Fall - 2nd year					
RAD 110	Rad Intro & Patient Care	2	3	0	3
RAD 111	Rad Procedures I	3	3	0	4
RAD 151	RAD Clinical Ed. I	0	0	6	2
	Total	5	6	6	9
Spring - 2nd year					
RAD 112	RAD Procedures II	3	3	0	4
RAD 121	Radiographic Imaging I	2	3	0	3
RAD 131	Radiographic Physics I	1	3	0	2
RAD 161	Rad Clinical Ed II	0	0	15	5
	Total	6	9	15	14
Summer - 2nd year					
RAD 122	Radiographic Imaging II	1	3	0	2
RAD 171	Rad Clinical Ed III	0	0	12	4
	Total	1	3	12	6
Fall - 3rd year					
RAD 211	Rad Procedures III	2	3	0	3
RAD 231	Radiographic Physics II	1	3	0	2
RAD 251	Rad Clinical Ed IV	0	0	21	7
	Total	3	6	21	12
Spring - 3rd year					
RAD 241	Radiobiology/Protection	2	0	0	2
RAD 245	Image Analysis	1	3	0	2
RAD 261	Rad Clinical Ed V	0	0	21	7
RAD 271	Radiography Capstone	0	3	0	1
	Total	3	6	21	12
	Grand Total	36	36	75	73

Note: Students must complete BIO 168, BIO 169, ENG 111, ENG 112 or ENG 113 or ENG 114, MAT 140 or higher, PSY 150, and a Humanities/Fine Arts elective, prior to the program application deadline and prior to admission to the program. Students must also be accepted into the Radiography program prior to taking RAD courses.

REAL ESTATE

Real Estate courses offered can be taken as an elective for Business Administration and General Occupational Technology, or for the North Carolina Real Estate Sales and Broker examinations.

Course requirements for the North Carolina Real Estate Sales Examination:

RLS 112	Broker Prelicensing	5 0 0	5
RLS 113	Real Estate Mathematics	2 0 0	2

For additional information on examination requirements, please contact the North Carolina Real Estate Office.

RESPIRATORY THERAPY
A.A.S. Program (A45720)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate of Applied Science Degree is awarded graduates of this curriculum.

The Respiratory Therapy curriculum prepares individuals to function as respiratory therapists. In these roles, individuals perform diagnostic testing, treatments, and management of patients with heart and lung diseases. Students will master skills in patient assessment and treatment of cardiopulmonary diseases. These skills include life support, monitoring, drug administration, and treatment of patients of all ages in a variety of settings. Graduates of accredited programs may be eligible to take entry-level examinations from the National Board of Respiratory Care. Therapy graduates may also take the Advanced Practitioner examination. Graduates may be employed in hospitals, clinics, nursing homes, education, industry, and home care.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Expository Writing	3
ENG	112	Argument-Based Researach	3
OR			
ENG	113	Literature-Based Research	3
OR			
ENG	114	Prof Research & Reporting	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

BIO	163	Basic Anat & Physiology	5

Social/Behavioral Sciences:

Elective			3

MAJOR COURSES:

BIO	175	General Microbiology	3
RCP	110	Intro to Respiratory Care	4
RCP	111	Therapeutics/Diagnostics	5
RCP	113	RCP Pharmacology	2
RCP	114	C-P Anatomy & Physiology	3
RCP	115	C-P Pathophysiology	2
RCP	122	Special Practice Lab	1
RCP	123	Special Practice Lab	1
RCP	145	RCP Clinical Practice II	5
RCP	152	RCP Clinical Practice III	2
RCP	210	Critical Care Concepts	4
RCP	211	Adv Monitoring/Procedures	4
RCP	214	Neonatal/Ped's RC	2
RCP	215	Career Prep-Adv Level	1
RCP	236	RCP Clinical Practice IV	6
RCP	247	RCP Clinical Practice V	7

Total Credit Hours Required **69**

DEVELOPMENTAL COURSE REQUIREMENTS*

ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040		4
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Respiratory Therapy • A45720
Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
RCP 110	Intro to Resp. Care		3	3	0	4
RCP 113	RCP Pharmacology		2	0	0	2
RCP 122	Special Practice Lab		0	2	0	1
RCP 114	C-P Anatomy & Physiology		3	0	0	3
BIO 163	Basic Anatomy & Physiology		4	2	0	5
ENG 111	Expository Writing		3	0	0	3
		Total	15	7	0	18
Spring - 1st year						
RCP 111	Therapeutics/Diagnostics		4	3	0	5
RCP 145	Clinical Practice II		0	0	15	5
RCP 115	C-P Pathophysiology		2	0	0	2
BIO 175	General Microbiology		2	2	0	3
ENG 112	Argument-Based Research		3	0	0	3
OR	ENG 113 Literature-Based Research		3	0	0	3
OR	ENG 114 Professional Writing		3	0	0	3
(Students are recommended to take ENG 114)						
		Total	11	5	15	18
Summer - 1st year						
RCP 152	Clinical Practice III		0	0	6	2
RCP 123	Special Practice Lab		0	3	0	1
		Total	0	3	6	3
Fall - 2nd year						
RCP 210	Critical Care Concepts		3	3	0	4
RCP 236	Clinical Practice IV		0	0	18	6
RCP 214	Neo/Peds Resp. Care		1	3	0	2
	Humanities/Fine Arts Elective		3	0	0	3
		Total	7	6	18	15
Spring - 2nd year						
RCP 211	Advanced Monitoring/Proced.		3	3	0	4
RCP 247	Clinical Practice V		0	0	21	7
RCP 215	Career Prep - Adv. Level		0	3	0	1
	Social/Behavioral Science Elective		3	0	0	3
		Total	6	6	21	15
.		Grand Total	39	27	60	69

Note: Students must complete college level chemistry, 4 credit hours, prior to admission into the program. CHM 100 or greater.

SURGICAL TECHNOLOGY
Diploma Program (D45740)

Courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: three semesters full-time attendance. The Diploma is awarded graduates of the surgical technology curriculum. 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. Employment opportunities include labor/delivery/emergency departments, inpatient/outpatient surgery centers, dialysis units/facilities, physicians' offices, and central processing units. Students of Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited programs are required to take the national certification exam administered by the National Board on Certification in Surgical Technology and Surgical Assisting (NBSTSA) within a four-week period prior to or after graduation.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
Social/Behavioral Sciences:			
PSY	150	General Psychology	3
MAJOR COURSES:			
BIO	163	Basic Anat & Physiology	5
BIO	175	General Microbiology	3
SUR	110	Intro to Surg Tech	3
SUR	111	Periop Patient Care	7
SUR	122	Surgical Procedures I	6
SUR	123	SUR Clinical Practice I	7
SUR	134	Surgical Procedures II	5
SUR	135	SUR Clinical Practice II	4
SUR	137	Prof Success Prep	1
OTHER REQUIRED COURSES:			
ACA	111	College Student Success	1
Total Credit Hours Required			**48**
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040		4
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Surgical Technology • (D45740)
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ENG 111	Expository Writing	3	0	0	3
ACA 111	College Student Success	1	0	0	1
BIO 163	Basic Anatomy & Physiology	4	2	0	5
SUR 110	Intro to Surg Tech	3	0	0	3
SUR 111	Periop Patient Care	5	6	0	7
	Total	16	8	0	19
Spring - 1st year					
BIO 175	General Microbiology	2	2	0	3
PSY 150	General Psychology	3	0	0	3
SUR 122	Surgical Procedures I	5	3	0	6
SUR 123	SUR Clinical Practice I	0	0	21	7
	Total	10	5	21	19
Summer - 1st year					
SUR 135	SUR Clinical Practice II	0	0	12	4
SUR 134	Surgical Procedures II	5	0	0	5
SUR 137	Prof Success Prep	1	0	0	1
	Total	6	0	12	10
	Grand Total	32	13	33	48

TURFGRASS MANAGEMENT TECHNOLOGY
A.A.S. Program (A15420)

Most courses required to meet graduation requirements in this curriculum are offered during day hours only. Minimum time for completion: five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. CVCC has an 2 + 2 Articulation Agreement with N.C. Agricultural and Technological State University in Horticulture. CVCC has an 2+2 Online Articulation Agreement with Pennsylvania State University for the B.S. Degree in Turfgrass Management. 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. A program that focuses on turfgrasses and related groundcover plants and prepares individuals to development ornamental or recreational grasses and related products; plant, transplant, and manage grassed areas; and to produce and store turf used for transplantation. Potential course work includes instruction in applicable plant sciences, genetics of grasses, turf science, use analysis, turf management, and related economics.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	112	Argument-Based Research	3
	OR		
ENG	113	Literature-Based Research	3
Humanities/Fine Arts:			
Elective			3
Natural Sciences/Mathematics:			
MAT	115	Mathematical Models	3
Social/Behavioral Sciences:			
Elective			3
MAJOR COURSES:			
COE	XXX	Co-op Work Experience	5
HOR	162	Applied Plant Science	3
HOR	166	Soils & Fertilizers	3
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	125	Turfgrass Computer App	2
TRF	130	Native Flora ID	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	150	Landscape Drafting	2
TRF	151	Intro Landscape Design	3
TRF	152	Landscape Maintenance	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	230	Turfgrass Mgmt Apps	2
TRF	240	Turfgrass Pest Control	3
TRF	250	Golf/Sport Field Const	4
TRF	260	Adv Turfgrass Mgmt	4
OTHER REQUIRED COURSES:			
SPA	120	Spanish for the Workplace	3
Total Credit Hours Required			**70**
DEVELOPMENTAL COURSE REQUIREMENTS*			
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Turfgrass Management Technology • A15420

Suggested Program Sequence Day

			Class	Lab	Clin/WkExp	Credit
Fall - 1st year						
ENG 111	Expository Writing		3	0	0	3
MAT 115	Mathematical Models		2	2	0	3
TRF 110	Intro to Turfgrass Cul & ID		3	2	0	4
HOR 166	Soils & Fertilizers		2	2	0	3
TRF 150	Landscape Drafting		1	3	0	2
HOR 162	Applied Plant Science		2	2	0	3
		Total	13	11	0	18
Spring - 1st year						
TRF 220	Turfgrass Calculations		2	0	0	2
TRF 210	Turfgrass Equipment Mgmt		1	4	0	3
TRF 120	Turfgrass Irrigat & Design		2	4	0	4
ENG 114	Prof Research & Reporting (Preferred)		3	0	0	3
OR	ENG 112 Argument-Based Research		3	0	0	3
OR	ENG 113 Literature-Based Research		3	0	0	3
TRF 151	Intro Landscape Design		2	2	0	3
		Total	10	10	0	15
Summer - 1st year						
COE XXX	Co-op Work Experience		0	0	20	2
		Total	0	0	20	2
Fall - 2nd year						
TRF 240	Turfgrass Pest Control		2	2	0	3
TRF 140	Turfgrass Mgmt Safety		2	2	0	3
TRF 125	Turfgrass Computer App		1	3	0	2
TRF 130	Native Flora ID		1	3	0	2
TRF 152	Landscape Maintenance		2	2	0	3
COE XXX	Co-op Work Experience		0	0	10	1
	Humanities/Fine Arts Elective		3	0	0	3
		Total	11	12	0	17
Spring - 2nd year						
TRF 260	Adv Turfgrass Mgmt		3	2	0	4
TRF 230	Turfgrass Mgmt Apps		1	2	0	2
TRF 250	Golf/Sport Field Const		2	4	0	4
COE XXX	Co-op Work Experience		0	0	20	2
SPA 120	Spanish for the Workplace		3	0	0	3
	Social/Behavioral Science Elective		3	0	0	3
		Total	12	8	0	18
		Grand Total	46	41	50	70

TURFGRASS MANAGEMENT TECHNOLOGY
Diploma Program (D15420)

GENERAL EDUCATION COURSES:			**SHC**
ENG	111	Expository Writing	3
MAT	115	Mathematical Models	3
MAJOR COURSES:			
COE	113	Co-op Work Experience I	3
COE	XXX	Co-op Work Experience	2
HOR	166	Soils & Fertilizers	3
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	130	Native Flora ID	2
TRF	140	Turfgrass Mgmt Safety	3
TRF	151	Intro Landscape Design	3
TRF	210	Turfgrass Eqmt Mgmt	3
TRF	220	Turfgrass Calculations	2
TRF	240	Turfgrass Pest Control	3
TRF	250	Golf/Sport Field Const	4
Total Credit Hours Required			**39**
DEVELOPMENTAL COURSE REQUIREMENTS*			
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Fall - 1st year						
ENG 111	Expository Writing		3	0	0	3
MAT 115	Mathematical Models		2	2	0	3
HOR 166	Soils & Fertilizers		2	2	0	3
TRF 110	Intro to Turfgrass Cul & ID		3	2	0	4
TRF 140	Turfgrass Mgmt Safety		2	2	0	3
TRF 240	Turfgrass Pest Control		2	2	0	3
		Total	12	8	0	19
Spring - 1st year						
TRF 120	Turfgrass Irrigat & Design		2	4	0	4
TRF 151	Intro Landscape Design		2	2	0	3
TRF 210	Turfgrass Equipment Mgmt		1	4	0	3
TRF 220	Turfgrass Calculations		2	0	0	2
TRF 250	Golf/Sport Field Const		2	4	0	4
COE XXX	Co-op Work Experience I		0	0	0	1
		Total	9	14	0	17
Summer - 1st year						
COE 113	Co-op Work Experience I		0	0	30	3
		Total	0	0	30	3
		Grand Total	21	22	30	39

TURFGRASS MANAGEMENT TECHNOLOGY
Certificate Program (C15420)

MAJOR COURSES:			**SHC**
TRF	110	Intro Turfgrass Cult & ID	4
TRF	120	Turfgrass Irrigat & Design	4
TRF	140	Turfgrass Mgmt Safety	3
TRF	220	Turfgrass Calculations	2
TRF	240	Turfgrass Pest Control	3
Total Credit Hours Required			**16**
DEVELOPMENTAL COURSE REQUIREMENTS*			
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Fall - 1st year						
TRF 110	Intro to Turfgrass Cul & ID		3	2	0	4
TRF 140	Turfgrass Mgmt Safety		2	2	0	3
TRF 240	Turfgrass Pest Control		2	2	0	3
		Total	7	6	0	10
Spring - 1st year						
TRF 120	Turfgrass Irrigat & Design		2	4	0	4
TRF 220	Turfgrass Calculations		2	0	0	2
		Total	4	4	0	6
		Grand Total	11	10	0	16

WEB TECHNOLOGIES
A.A.S. Program (A25290)

Courses required to meet graduation requirements in this curriculum are offered during the day and online. Minimum time for completion: Day--five semesters full-time attendance. The Associate in Applied Science Degree is awarded graduates of this curriculum. 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.

GENERAL EDUCATION COURSES: **SHC**

English/Communications:

ENG	111	Expository Writing	3
ENG	114	Prof Research & Reporting	3
	OR		
ENG	113	Literature-Based Research	3

Humanities/Fine Arts:

Elective			3

Natural Sciences/Mathematics:

MAT	140	Survey of Mathematics	3
MAT	140A	Survey of Mathematics Lab	1

Social/Behavioral Sciences:

Elective			3

MAJOR COURSES:

CIS	110	Introduction to Computers	3
CIS	115	Intro to Prog & Logic	3
COE	XXX	Co-op Work Experience	2
CTS	115	Info Sys Business Concept	3
DBA	110	Database Concepts	3
NET	125	Networking Basics	3
NOS	110	Operating System Concepts	3
SEC	110	Security Concepts	3
WEB	110	Internet/Web Fundamentals	3
WEB	115	Web Markup and Scripting	3
WEB	120	Intro Internet Multimedia	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3
WEB	230	Implementing Web Serv	3
WEB	250	Database Driven Websites	3
WEB	289	Internet Technologies Project	3

Program/WEB Industry Elective 3

Students are required to take one (1) course from the following:

BUS	230	Small Business Management	3
CSC	151	JAVA Programming	3
MKT	120	Principles of Marketing	3
MKT	223	Customer Service	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	114	3D Modeling	3
WEB	180	Active Server Pages	3
WEB	186	XML Technology	3
WEB	260	E-Commerce Infrastructure	3

OTHER REQUIRED COURSES:

ACA	111	College Student Success	1

Students are required to take one (1) course from the following:

FVP	220	Editing I	3
WEB	111	Intro to Web Graphics	3
WEB	151	Mobile Application Development 1	3
WEB	220	Advanced Multimedia	3
WEB	240	Internet Security	3

Total Credit Hours Required 70

DEVELOPMENTAL COURSE REQUIREMENTS*

CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Web Technologies • A25290
Suggested Program Sequence Day

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
ACA 111	College Student Success	1	0	0	1
CIS 110	Introduction to Computers	2	2	0	3
CIS 115	Intro to Prog & Logic	2	3	0	3
DBA 110	Database Concepts & Apps	2	3	0	3
WEB 110	Internet Web Fundamentals	2	2	0	3
MAT 140	Survey of Math	3	0	0	3
MAT 140A	Survey of Math Lab	0	2	0	1
	Total	12	12	0	17
Spring - 1st year					
WEB 140	Web Development Tools	2	2	0	3
CTS 115	Info Sys Business Concepts	3	0	0	3
ENG 111	Expository Writing	3	0	0	3
NET 125	Networking Basics	1	4	0	3
WEB 120	Intro Internet Multimedia	2	2	0	3
	WEB Program Elective	0	0	0	3
	Total	11	8	0	18
Summer - 1st year					
ENG 114	Prof Research & Reporting	3	0	0	3
OR	ENG 113 Literature-Based Research	3	0	0	3
	Humanities/Fine Arts Elective	3	0	0	3
	Total	6	0	0	6
Fall - 2nd year					
SEC 110	Security Concepts	2	2	0	3
WEB 250	DataBase Driven Websites	2	2	0	3
WEB 115	Web Markup and Scripting	2	2	0	3
WEB 230	Implementing Web Serv	2	2	0	3
	WEB Elective	0	0	0	3
	Total	8	8	0	15
Spring - 2nd year					
WEB 210	Web Design	2	2	0	3
WEB 289	Internet Tech Project	1	4	0	3
NOS 110	Operating Systems Concepts	2	3	0	3
COE XXX	Co-op Work Experience	0	0	20	2
	Social/Behavioral Science Elective	3	0	0	3
	Total	8	9	20	14
	Grand Total	45	37	20	70

WEB TECHNOLOGIES
Basic Web Developer • Certificate Program (C25290)

MAJOR COURSES:			SHC
CSC	151	JAVA Programming	3
WEB	110	Internet/Web Fundamentals	3
WEB	120	Intro Internet Multimedia	3
WEB	140	Web Development Tools	3

Total Credit Hours Required 12

Basic Web Developer Certificate • C25290 Suggested Sequence

Fall - 1st year						
CSC 151	JAVA Programming	2	3	0	3
WEB 110	Internet Web Fundamentals	2	2	0	3
	Total	4	5	0	6
Spring - 1st year						
WEB 140	Web Development Tools	2	2	0	3
WEB 120	Intro Internet Multimedia	2	2	0	3
	Total	4	4	0	6
	Grand Total	8	9	0	12

WEB TECHNOLOGIES
Webmaster • Certificate Program (C2529001)

MAJOR COURSES:			SHC
CTS	115	Info Sys Business Concept	3
SEC	110	Security Concepts	3
WEB	115	Web Markup and Scripting	3
WEB	210	Web Design	3

Total Credit Hours Required 12

Web Technologies - Webmaster Certificate • C2529001
Suggested Sequence

Fall - 1st year						
SEC 110	Security Concepts	2	2	0	3
WEB 115	Web Markup and Scripting	2	2	0	3
	Total	4	4	0	6
Spring - 1st year						
CTS 115	Info Sys Business Concept	3	0	0	3
WEB 210	Web Design	2	2	0	3
	Total	5	2	0	6
	Grand Total	9	6	0	12

WELDING TECHNOLOGY
Diploma Program (D50420)

Courses required to meet graduation requirements in this curriculum are offered during day, afternoon, and evening hours. Minimum time for completion: five semesters full-time attendance. Students may begin any semester. The Diploma is awarded graduates of this curriculum. A Certificate is awarded graduates who complete the certificate program option.

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry. Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application. Successful graduates 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.

GENERAL EDUCATION COURSES:			SHC
English/Communications:			
ENG	102	Applied Communications II	3
	OR		
ENG	111	Expository Writing	3
Natural Sciences/Mathematics:			
MAT	101	Applied Mathematics I	3
	OR		
MAT	115	Mathematical Models	3
MAJOR COURSES:			
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR			
WLD	115AC	SMAW (Stick) Plate-AC	2
WLD	115BC	SMAW (Stick) Plate-BC	2
WLD	115CC	SMAW (Stick) Plate-CC	1
WLD	116	SMAW (Stick) Plate/Pipe	4
OR			
WLD	116AB	SMAW (Stick) Plate/Pipe-AB	2
WLD	116BB	SMAW (Stick) Plate/Pipe-BB	2
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3
WLD	143	Welding Metallurgy	2
WLD	215	SMAW (Stick) Pipe	4
OR			
WLD	215AB	SMAW (Stick) Pipe-AB	2
WLD	215BB	SMAW (Stick) Pipe-BB	2
WLD	261	Certification Practices	2
OTHER REQUIRED COURSES:			
WLD	262	Inspection & Testing	3

Total Credit Hours Required 39

DEVELOPMENTAL COURSE REQUIREMENTS*

MAT	DMA 010, DMA 020, DMA 030		3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Welding Technology Con't.

Welding Technology - Diploma • D50420
Suggested Program Sequence Evening

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
WLD 110	Cutting Processes	1	3	0	2
WLD 115AC	SMAW (Stick) Plate-AC	1	3	0	2
WLD 143	Welding Metallurgy	1	2	0	2
	Total	3	8	0	6
Spring - 1st year					
WLD 115BC	SMAW (Stick) Plate-BC	1	3	0	2
WLD 115CC	SMAW (Stick) Plate-CC	0	3	0	1
WLD 141	Symbols & Specifications	2	2	0	3
MAT 101	Applied Mathematics I	2	2	0	3
OR	MAT 115 Mathematical Models	2	2	0	3
	Total	5	10	0	9
Fall - 2nd year					
WLD 116AB	SMAW (Stick) Plate/Pipe-AB	1	4	0	2
WLD 116BB	SMAW (Stick) Plate/Pipe-BB	0	5	0	2
ENG 102	Applied Communications II	3	0	0	3
OR	ENG 111 Expository Writing	3	0	0	3
	Total	4	9	0	7
Spring - 2nd year					
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	4
WLD 215AB	SMAW (Stick) Pipe-AB	1	4	0	2
WLD 215BB	SMAW (Stick) Pipe-BB	0	5	0	2
WLD 262	Inspection & Testing	2	2	0	3
	Total	5	17	0	11
Fall - 3rd year					
WLD 131	GTAW (TIG) Plate	2	6	0	4
WLD 261	Certification Practices	1	3	0	2
	Total	3	9	0	6
	Grand Total	20	53	0	39

WELDING TECHNOLOGY Certificate Program (C50420)

MAJOR COURSES:		SHC
WLD 110	Cutting Processes	2
WLD 115AC	SMAW (Stick) Plate-AC	2
WLD 115BC	SMAW (Stick) Plate-BC	2
WLD 115CC	SMAW (Stick) Plate-CC	1
WLD 121	GMAW (MIG) FCAW/Plate	4
WLD 131	GTAW (TIG) Plate	4
WLD 141	Symbols & Specifications	3
Total Credit Hours Required		**18**

Welding Technology - Certificate • C50420 - Suggested Sequence

		Class	Lab	Clin/WkExp	Credit
Fall - 1st year					
WLD 110	Cutting Processes	1	3	0	2
WLD 115AC	SMAW (Stick) Plate-AC	1	3	0	2
	Total	2	6	0	4
Spring - 1st year					
WLD 115BC	SMAW (Stick) Plate-BC	1	3	0	2
WLD 115CC	SMAW (Stick) Plate-CC	0	3	0	1
	Total	1	6	0	3
Fall - 2nd year					
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	4
	Total	2	6	0	4
Spring - 2nd year					
WLD 141	Symbols & Specifications	2	2	0	3
WLD 131	GTAW (TIG) Plate	2	6	0	4
	Total	4	8	0	7
	Grand Total	9	26	0	18

SPECIAL PROGRAMS

Associate in Applied Science Degree Curricula:
• Funeral Service Education

Diploma Curriculum:
• NC Funeral Director

Certificate Curriculum:
• Truck Driver Training

Special programs are offered on demand in conjunction with other institutions when justified by employment needs and student interest. Details concerning current special programs are included on the following pages. Additional information may be obtained from the college website.

FUNERAL SERVICE EDUCATION

A.A.S. Program (A55260) Collaborative Program
Catawba Valley Community College/
Fayetteville Technical Community College

Funeral Service Education is an associate degree program offered at CVCC by Fayetteville Technical Community College. The Funeral Service Education courses are offered by FTCC via a live interactive video feed in one of the NC Information Highway classrooms at CVCC, with the general education courses being offered by CVCC. For details, please contact CVCC's Advising Center 828-327-7000, Ext. 4687. The Funeral Service Education curriculum provides students with the opportunity to become proficient in basic funeral service skills. In addition to the general education courses offered in the curriculum, technical courses such as human anatomy, embalming theory and practice, embalming chemistry, restorative arts, funeral law, and funeral home operations are taught.Students in the FTCC Funeral Service Education program are also required to take the National Board Exam for Funeral Service as a condition of Graduation. Graduates of the curriculum, upon passing the state or national exam and completing an internship in a funeral home, will be qualified for employment as embalmers and/or funeral directors.The Associate in Applied Science Degree in Funeral Service Education at Fayetteville Technical Community College is accredited by:

American Board of Funeral Service Education
3432 Ashland Avenue, Suite U • St. Joseph, MO 64506
Telephone: 816-223-3747

NC FUNERAL DIRECTOR

Diploma Program (D55260) • Collaborative Program
Catawba Valley Community College/
Fayetteville Technical Community College

Funeral Service Education -- NC Funeral Director is a diploma program offered at CVCC by Fayetteville Technical Community College. The Funeral Service Education courses are offered by FTCC via a live interactive video feed in one of the NC Information Highway classrooms at CVCC, with the general education courses being offered by CVCC. For details, please contact CVCC's Advising Center 828-327-7000, Ext. 4687. The Funeral Service Education curriculum provides students with the opportunity to acquire the funeral service education necessary to become proficient in basic funeral directing skills. Students completing the diploma are eligible to sit for the NC Board of Funeral Service Funeral Director state exam. This academic program is designed to meet specific state or professional needs. It is not accredited by the American Board of Funeral Service Education owing to the fact that it does not include instruction in the following areas: Anatomy, Chemistry, Embalming, Microbiology and Restorative Arts. Students graduating from this program are not eligible to take the National Board Examination or any state examination for which graduation from an ABFSE accredited program is required.

TRUCK DRIVER TRAINING

Certificate Program (C60300) • Collaborative Program
Catawba Valley Community College/
Caldwell Community College & Technical Institute

Truck Driver Training is an eight-week certificate program (384 hours) that teaches the basics of professional truck driving. In addition to classroom instruction, students will practice driving range maneuvers along with rural, city, and interstate driving in 18-wheel, tractor-trailer rigs. This program will prepare the student for a beginning career in driving a commercial motor vehicle. Graduates of this program are always in demand. For details, call 828-726-2386 or 828-726-2380. The Truck Driver Training curriculum prepares individuals to drive tractor trailer rigs. This program teaches proper driving procedures, safe driver responsibility, commercial motor vehicle laws and regulations and the basic principles and practices for operating commercial vehicles. The course work includes motor vehicle laws and regulations, map reading, trip planning, vehicle maintenance, safety procedures, daily logs, defensive driving, freight handling, security, and fire protection. Highway driving, training range exercises, and classroom lectures are used to develop the student's knowledge and skills. Graduates of this program will have a Class A driver's license and may be immediately employed by commercial trucking firms. They may also become owners/operators and work as private contract haulers.

CAREER AND COLLEGE PROMISE
(High School Students)

The Career and College Promise program is established by the State Board of Education and the State Board of Community Colleges.

Career and College Promise provides dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. North Carolina community colleges may offer the following Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education:

- A Core 44 College Transfer Pathway leading to a minimum of 30 hours of college transfer credit
- A Career and Technical Education Pathway leading to a certificate, diploma or degree.

Core 44 College Transfer Pathway

1. The Career and College Promise Core 44 College Transfer Pathway requires the completion of at least thirty semester hours of transfer courses, including English and mathematices.
2. To be eligible for enrollment, a high school student must meet the following criteria:
   a. Be a high school junior or senior;
   b. Have a weighted GPA of 3.0 on high school courses; and
   c. Demonstrate college readiness on an assessment or placement test. A student must demonstrate college readiness in English, reading and mathematics to be eligible for enrollment in a Core 44 College Transfer Pathway.
3. A high school junior or senior who does not demonstrate college-readiness on an approved assessment or placement test may be provisionally enrolled in a College Transfer Pathway. To qualify for Provisional Status, a student must meet the following criteria:
   a. Have a cumulative weighted GPA of 3.5;
   b. Have completed two years of high school English with a grade of 'C' or higher;
   c. Have completed high school Algebra II (or a higher level math class) with a grade of 'C' or higher;
   d. Obtain the written approval of the high school principal or his/her designee; and,
   e. Obtain the written approval of the community college president or his/her designee.

   A Provisional Status student may register only for college mathematics (MAT) and college English (ENG) courses within the chosen Pathway. To be eligible to register for other courses in the Pathway, the student must first successfully complete matematics and English courses with a grade of 'C' or higher.
4. To maintain eligibility for continued enrollment, a student must
   a. Continue to make progress toward high school graduation, and
   b. Maintain a 2.0 GPA in college coursework after completing two courses.
5. A student must enroll in one Core 44 College Transfer Pathway program of study and may not substitute courses in one program for courses in another.
6. A student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.
7. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student who completes a Core 44 College Transfer Pathway while still enrolled in high school may continue to earn college transfer credits leading to the completion of the 44-hour general education transfer core.
8. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student may enroll in both a Core 44 College Transfer Pathway program of study and a Career Technical Education program of study.

Career Technical Education Pathway

1. The Career and College Promise Career Technical Education Pathway leads to a certificate or diploma aligned with a high school Career Cluster.
2. To be eligible for enrollment, a high school student must meet the following criteria:
   a. Be a high school junior or senior;
   b. Have a weighted GPA of 3.0 on high school courses or have the recommendation of the high school principal or his/her designee; and
   c. Meet the prerequisites for the career pathway.
3. High school counselors should consider students' PLAN scores in making pathway recommendations.
4. College Career Technical Education courses may be used to provide partial or full fulfillment of a four-unit career cluster. Where possible, students should be granted articulated credit based on the local or state North Carolina High School to Community College articulation agreement.
5. To maintain eligibility for continued enrollment, a student must
   a. Continue to make progress toward high school graduation, and
   b. Maintain a 2.0 in college coursework after completing two courses.
6. A student must enroll in one program of study and may not substitute courses in one program for courses in an other. The student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.

CORE 44 College Transfer Pathway
Humanities and Social Science (P1012A)

GENERAL EDUCATION COURSES:			SHC
English/Communication (6 SHC)			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
Humanities/Fine Arts (6 SHC)			
ART	111	Art Appreciation	3
ENG	232	American Literature II	3
Natural Sciences/Mathematics (7 SHC)			
BIO	111	General Biology I	4
MAT	161	College Algebra	3
Social/Behavioral Sciences (6 SHC)			
HIS	121	Western Civilization	3
PSY	150	General Psychology	3
Other Required General Education (6 SHC)			
COM	231	Public Speaking	3
SPA	111	Elementary Spanish I	3
OTHER REQUIRED COURSES (3 SHC)			
ACA	122	College Transfer Success	1
MAT	161A	College Algebra Lab	1
SPA	181	Spanish Lab 1	1
Total Credit Hours Required			34

CORE 44 College Transfer Pathway
Business and Economics (P1012B)

GENERAL EDUCATION COURSES:			SHC
English/Communication (6 SHC)			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
Humanities/Fine Arts (3 SHC)			
ENG	232	American Literature II	3
Natural Sciences/Mathematics (7 SHC)			
BIO	111	General Biology I	4
MAT	161	College Algebra	3
Social/Behavioral Sciences (9 SHC)			
ECO	251	Principles of Microeconomics	3
HIS	121	Western Civilization	3
SOC	210	Introduction to Sociology	3
Other Required General Education (6 SHC)			
CIS	110	Introduction to Computers	3
COM	231	Public Speaking	3
OTHER REQUIRED COURSES (2 SHC)			
ACA	122	College Transfer Success	1
MAT	161A	College Algebra Lab	1
Total Credit Hours Required			33

CORE 44 College Transfer Pathway
Life and Health Sciences (P1042A)

GENERAL EDUCATION COURSES:			SHC
English/Communication (6 SHC)			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
Humanities/Fine Arts (3 SHC)			
ENG	232	American Literature II	3
Natural Sciences/Mathematics (19 SHC)			
BIO	111	General Biology I	4
BIO	112	General Biology II	4
CHM	151	General Chemistry I	4
CHM	152	General Chemistry II	4
MAT	171	Precalculus Algebra	3
Social/Behavioral Sciences (3 SHC)			
HIS	121	Western Civilization	3
OTHER REQUIRED COURSES (2 SHC)			
ACA	122	College Transfer Success	1
MAT	171A	Precalculus Algebra Lab	1
Total Credit Hours Required			33

CORE 44 College Transfer Pathway
Engineering and Mathematics (P1042B)

GENERAL EDUCATION COURSES:			SHC
English/Communication (6 SHC)			
ENG	111	Expository Writing	3
ENG	113	Literature-Based Research	3
Humanities/Fine Arts (3 SHC)			
ENG	232	American Literature II	3
Natural Sciences/Mathematics (14 SHC)			
CHM	151	General Chemistry I	4
MAT	171	Precalculus Algebra	3
MAT	172	Precalculus Trigonometry	3
MAT	271	Calculus I	4
Social/Behavioral Sciences (6 SHC)			
HIS	121	Western Civilization	3
ECO	251	Principles of Microeconomics	3
OTHER REQUIRED COURSES (3 SHC)			
ACA	122	College Transfer Success	1
MAT	171A	Precalculus Algebra Lab	1
MAT	172A	Precalculus Trig Lab	1
Total Credit Hours Required			32

CAREER TECHNICAL CAREER PATHWAY

Advertising and Graphic Design • Pathway (C30100P)

CORE COURSES (12 SHC):			SHC
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRD	110	Typography I	3
GRD	121	Drawing Fundamentals I	2
GRD	141	Graphic Design I	4
GRD	142	Graphic Design II	4
Total Credit Hours Required			17

Air Conditioning, Heating, and Refrigeration Technology Pathway (D35100P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	102	Applied Communications II	3
MAT	101	Applied Mathematics I	3
CORE COURSES (20 SHC)			
AHR	110	Intro to Refrigeration	5
AHR	111	HVACR Electricity	3
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
AHR	114	Heat Pump Technology	4
OTHER MAJOR COURSES (10 SHC)			
AHR	130	HVAC Controls	3
AHR	160	Refrigerant Certification	1
AHR	180	HVACR Customer Relations	1
AHR	210	Residential Building Code	2
AHR	211	Residential System Design	3
Total Credit Hours Required			36
DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
MAT	DMA 010, DMA 020, DMA 030		3
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Air Conditioning, Heating, and Refrigeration Technology Pathway (C35100P)

CORE COURSES (17 SHC)			SHC
AHR	110	Intro to Refrigeration	5
AHR	112	Heating Technology	4
AHR	113	Comfort Cooling	4
AHR	114	Heat Pump Technology	4
Total Credit Hours Required			17

Automotive Systems Technology Pathway (D60160P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
English/Communication:			
ENG	111	Expository Writing	3
Natural Science/Mathematics:			
MAT	115	Mathematical Models	3
MAJOR COURSES:			
CORE COURSES (18 SHC)			
AUT	141	Suspension & Steering Sys	3
AUT	151	Brake Systems	3
AUT	181	Engine Performance 1	3
TRN	110	Intro to Transport Tech	2
TRN	120	Basic TraspElectricity	5
TRN	140	Transp Climate Control	2
OTHER MAJOR COURSES (21 SHC)			
AUT	141A	Suspension & Steering Lab	1
AUT	151A	Brake Systems Lab	1
AUT	116	Engine Repair	3
AUT	116A	Engine Repair Lab	1
AUT	163	Adv Auto Electricity	3
AUT	181A	Engine Performance 1 Lab	1
AUT	183	Engine Performance 2	4
AUT	221	Auto Transm/Transaxles	3
AUT	221A	Auto Transm/Transax Lab	1
AUT	231	Man Trans/Axles/Drtrains	3
OTHER REQUIRED:			
OTHER REQUIRED COURSES (3 SHC)			
AUT	231A	Man Trans/Ax/Drtrains Lab	1
TRN	140A	Transp Climate Cont Lab	2
Total Credit Hours Required			48

Coop Option: Qualified Students may elect to take up to 4 credit hours of cooperative education in place of AUT 116A, AUT 141A, AUT 151A, AUT 181A, AUT 221A, AUT 241A.

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Improved College Reading	4
MAT	DMA 010, DMA 020, DMA 030, DMA 040, DMA 050		5
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Automotive Systems Technology Pathway (C60160P)

CORE COURSES (7 SHC)			
TRN	110	Intro to Transport Tech	2
TRN	120	Basic TraspElectricity	5
OTHER MAJOR COURSES (24 SHC)			
AUT	141	Suspension & Steering Sys	3
AUT	141A	Suspension & Steering Lab	1
AUT	151	Brake Systems	3
AUT	151A	Brake Systems Lab	1
Total Credit Hours Required			17

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
MAT	DMA 010, DMA 020, DMA 030		3
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Computer Integrated Machining Technology Pathway (D50210P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	111	Expository Writing	3
MAT	121	Algebra/Trigonometry I	3
CORE COURSES (16 SHC)			
MAC	122	CNC Turning	2
MAC	124	CNC Milling	2
MAC	131	Blueprint Reading/Mach. I	2
MAC	141	Machining Applications I	4
MAC	142	Machining Applications II	4
MEC	110	Intro to CAD/CAM	2
OTHER MAJOR COURSES (14 SHC)			
MAC	132	Blueprint Reading/Mach. II	2
MAC	151	Machining Calculations	2
MAC	222	Advanced CNC Turning	2
MAC	224	Advanced CNC Milling	2
MAC	231	CAM: CNC Turning	3
MAC	232	CAM: CNC Milling	3
OTHER REQUIRED COURSES (2 SHC)			
CIS	111	Basic PC Literacy	2
Total Credit Hours Required			38

DEVELOPMENTAL COURSE REQUIREMENTS*			
CTS	080	Computing Fundamentals	3
ENG	090	Composition Strategies	3
MAT	DMA 010, DMA 020, DMA 030		3
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Cosmetology • Pathway (D55140P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	102	Applied Communications II	3
PSY	150	General Psychology	3
CORE COURSES (41 SHC)			
COS	111	Cosmetology Concepts I	4
OR			
COS	111AB	Cosmetology Concepts I-AB	2
COS	111BB	Cosmetology Concepts I-BB	2
COS	112	Salon I	8
OR			
COS	112AB	Salon I-AB	4
COS	112BB	Salon I-BB	4
COS	113	Cosmetology Concepts II	4
OR			
COS	113AB	Cosmetology Concepts II-AB	2
COS	113BB	Cosmetology Concepts II-BB	2
COS	114	Salon II	8
OR			
COS	114AB	Salon II-AB	4
COS	114BB	Salon II-BB	4
COS	115	Cosmetology Concepts III	4
OR			
COS	115AB	Cosmetology Concepts III-AB	2
COS	115BB	Cosmetology Concepts III-BB	2
COS	116	Salon III	4
OR			
COS	116AB	Salon III-AB	2
COS	116BB	Salon III-BB	2
COS	117	Cosmetology Concepts IV	2
OR			
COS	117AB	Cosmetology Concepts IV-AB	1
COS	117BB	Cosmetology Concepts IV-BB	1
COS	118	Salon IV	7
Total Credit Hours Required			47

DEVELOPMENTAL COURSE REQUIREMENTS*			
RED	090	Improved College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Criminal Justice Technology
Law Enforcement Pathway (C55180P)

CORE COURSES (12 SHC)			SHC
CJC	111	Intro to Criminal Justice	3
CJC	113	Juvenille Justice	3
CJC	131	Criminal Law	3
CJC	212	Ethics & Comm Relations	3
OTHER REQUIRED COURSES (3 SHC)			
CJC	121	Law Enforcement Operations	3
Total Credit Hours Required			15

Criminal Justice Technology-Latent Evidence Concentration
Crime Scene Pathway (C5518AP)

CORE COURSES (16 SHC)			SHC
CJC	111	Intro to Criminal Justice	3
CJC	144	Crime Scene Processing	3
CJC	146	Trace Evidence	3
CJC	221	Investigative Principles	4
CJC	245	Friction Ridge Analysis	3
OTHER REQUIRED COURSES (2 SHC)			
CJC	114	Investigative Photography	2
Total Credit Hours Required			18

Electrical/Electronics Technology Pathway (C35220P)

CORE COURSES (13 SHC)			SHC
ELC	112	DC/AC Electricity	5
ELC	113	Basic Wiring I	4
ELC	115	Industrial Wiring	4
OTHER MAJOR COURSES (4 SHC)			
BPR	111	Blueprint Reading	2
ELC	118	National Electrical Code	2
Total Credit Hours Required			17

Graphic Arts and Imaging Technology Pathway (C30180P)

CORE COURSES (14 SHC)			SHC
GRA	121	Graphic Arts I	4
GRA	151	Computer Graphics I	2
GRA	152	Computer Graphics II	2
GRA	255	Image Manipulation I	2
GRD	141	Graphic Design I	4
OTHER REQUIRED COURSES (2 SHC)			
PRN	155	Screen Printing I	2
Total Credit Hours Required			16

Health Information Technology Pathway (C25200P)

CORE COURSES (12 SHC)			SHC
HIT	110	Fundamentals of HIM	3
HIT	112	Health Law and Ethics	3
MED	121	Medical Terminology I	3
MED	122	Medical Terminology II	3
OTHER REQUIRED COURSES (3 SHC)			
CIS	110	Introduction to Computers	3
Total Credit Hours Required			15

Healthcare Management Technology
Receptionist Pathway (C45360P)

CORE COURSES (15 SHC)			SHC
HMT	110	Intro to Healthcare Mgt	3
HMT	210	Medical Insurance	3
MED	121	Medical Terminology I (1st 8 weeks)	3
MED	122	Medical Terminology II (2nd 8 weeks)	3
OST	149	Medical Legal Issues	3
OTHER REQUIRED COURSES (1 SHC)			
MED	114	Prof Interac in Heal Care	1
Total Credit Hours Required			16
DEVELOPMENTAL COURSE REQUIREMENTS*			
RED	080	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

Horticulture Technology Pathway (C15240P)

CORE COURSES (12 SHC)			SHC
HOR	160	Plant Materials I	3
HOR	162	Applied Plant Science	3
HOR	164	Hort Pest Management	3
HOR	168	Plant Propagation	3
OTHER MAJOR COURSES (6 SHC)			
HOR	110	Intro to Landscaping	2
HOR	118	Equipment Op & Maint	2
HOR	255	Interiorscapes	2
Total Credit Hours Required			18

Photographic Technology Pathway (C30280P)

CORE COURSES (14 SHC)			SHC
PHO	110	Fund of Photography	5
PHO	115	Basic Studio Lighting	4
PHO	139	Intro to Digital Imagining	2
PHO	224	Multimedia Production	3
Total Credit Hours Required			14
DEVELOPMENTAL COURSE REQUIREMENTS*			
RED	090	Intro to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.

WeldingTechnology Pathway (D50420P)

GENERAL EDUCATION COURSES (6 SHC)			SHC
ENG	102	Applied Communications II	3
MAT	101	Applied Mathematics I	3
CORE COURSES (18 SHC)			
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
OR			
WLD	115AC	SMAW (Stick) Plate-AC	2
WLD	115BC	SMAW (Stick) Plate-BC	2
WLD	115CC	SMAW (Stick) Plate-CC	1
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	131	GTAW (TIG) Plate	4
WLD	141	Symbols & Specifications	3
OTHER MAJOR COURSES (18 SHC)			
ELC	111	Intro to Electricity	3
WLD	116	SMAW (Stick) Plate/Pipe	4
OR			
WLD	116AB	SMAW (Stick) Plate/Pipe-AB	2
WLD	116BB	SMAW (Stick) Plate/Pipe-BB	2
WLD	143	Welding Metallurgy	2
WLD	215	SMAW (Stick) Pipe	4
OR			
WLD	215AB	SMAW (Stick) Pipe-AB	2
WLD	215BB	SMAW (Stick) Pipe-BB	2
WLD	261	Certification Practices	2
WLD	262	Inspection & Testing	3
Total Credit Hours Required			42
DEVELOPMENTAL COURSE REQUIREMENTS*			
MAT	DMA 010, DMA 020, DMA 030		3
RED	080	Introduction to College Reading	4

*Developmental coursework (including all prerequisites) will be required of students whose placement test scores indicate a need for greater proficiency in the areas of reading, English, mathematics, and computers. Please refer to the Course Descriptions section for prerequisite course information.