

- Transportation or Physical Distribution (use Business template/guide)
- Wildlife Science (AU only)

## Associate in Science and Associate in Arts

A student enrolled at CVCC in an Associate in Science degree program in General Studies or an Associate in Arts degree program in Liberal Arts must complete 41 semester hours of core curriculum course work distributed among four core discipline areas (Areas I - IV), as indicated below. The student must then refer to a subsequent section of this catalog, or to the degree plan available from the academic advisor, to select 19 to 23 additional semester hours of course work in an Area V field of concentration appropriate to his/her future major. The student must complete 60 to 64 semester hours of appropriate course work to satisfy the requirements for graduation and to receive the Associate in Science degree in General Studies or the Associate in Arts degree in Liberal Arts.

### Degree requirements

**Area I: Written Composition I and II ..... .6 credit hours**  
 ENG 101 and ENG 102

**Area II: Humanities and Fine Arts ..... \*12 credit hours**

Must complete at least three semester hours in Literature.

Must complete at least three semester hours in Arts.

\*Students must complete a six-hour sequence in Literature or History

ENG 251 and ENG 252 or ENG 271 and ENG 272

Remaining semester hours to be selected from Humanities and/or Fine Arts:

ART 100	ENG 272	PHL 206	SPA 201
ART 203	HUM 101	REL 100	SPH 106
ART 204	HUM 102	REL 151	SPH 107
ENG 251	HUM 103	REL 152	THR 120
ENG 252	HUM 299	SPA 101	THR 126
ENG 271	MUS 101	SPA 102	

**Area III: Natural Science and Mathematics ..... 11 credit hours**

Must complete three semester hours in Mathematics at the Precalculus Algebra (MTH 112) or Finite Math (MTH 110) level or above. (Prerequisites and/or developmental courses may be required for some students before enrolling in these courses).

Must complete eight semester hours in the Natural Sciences, which must include laboratory experiences:

BIO 103	CHM 112	PHY 201	PHY 214
BIO 104	PHS 111	PHY 202	
CHM 111	PHS 112	PHY 213	

**Area IV: History, Social, and Behavioral Sciences ..... \* 12 credit hours**

Must complete at least three semester hours in History.

\*Students must complete a six-hour sequence in Literature or History

HIS 121      HIS 201  
 HIS 122      HIS 202

Remaining semester hours to be selected from among other disciplines in the Social and Behavioral Sciences:

ANT 200	HIS 121	POL 200	SOC 200
ECO 231	HIS 122	POL 211	
ECO 232	HIS 201	PSY 200	
GEO 100	HIS 202	PSY 210	

**Areas I-IV: Minimum general education requirements ..... 41 credit hours**

AGSC approved CORE courses, including courses not offered by CVCC, transferred from another college will meet requirements for Areas I-IV.

**Area V: Preprofessional, pre-major, and elective courses ..... \*\*19-23 credit hours**

For additional courses, students must consult with their advisors to obtain Articulation Degree Plans for their specific areas of concentration.

The Articulation Degree Plan will list specific course requirements for transfer. However, since acceptance of transfer credits is ultimately determined by the senior institution, a student planning to transfer must consult with his/her advisor as well as the catalog of the institution to which he/she plans to transfer to ensure transfer credit.

**Additional degree requirements:**

ORI 101 (one credit hour) or ORI 105 (three credit hours) is required of all students except transfer students who have completed 14 or more semester hours prior to transferring to CVCC. If ORI 105 is taken to fulfill this requirement, the two additional credit hours may be used in Area V.

CIS 146 is required of all students except those who demonstrate computer literacy through testing administered by computer information systems faculty.

**Areas I-V: General studies curricula ..... \*\*\*60 credit hours**

**Maximum program semester credit hours ..... 64 credit hours**

**Semester credit-hour range by award ..... \*\*\*64 credit hours**

\* Students must complete a six-hour sequence in Literature or History

\*\* See the Articulation Degree Plan for specific course requirements for Areas II, III, and IV.

\*\*\*Respective programs of study for baccalaureate degrees at Alabama public universities range from 120 to 128 semester credit hours in length. Depending on the total hours allocated for the bachelor's degrees, institutions in the Alabama Community College System are authorized to provide 50 percent of the total (60-64).

**Alabama Articulation and General Studies Committee (AGSC)**

The AGSC was created to simplify the transfer of course credit between public institutions of higher education. To accomplish this task, the AGSC has developed and implemented a state-wide general studies and articulation program that facilitates the transferability of coursework

among all Alabama public colleges and universities. The AGSC continues to serve as a monitoring committee for the articulation program. They oversee and maintain the program on an on-going basis. Finally, the AGSC works to resolve any student appeals related to transfer of coursework as it relates to the articulation program.

## General course listing

<b>Area I: Written Communication .....</b>	<b>6</b>
ENG 101 English Composition I	
ENG 102 English Composition II	
<b>Area II: Humanities and Fine Arts .....</b>	<b>12</b>
*Literature .....	3
ENG 251 American Literature I	
ENG 252 American Literature II	
or	
ENG 271 World Literature I	
ENG 272 World Literature II	
Arts .....	3
ART 100 Art Appreciation	
ART 203 Art History I	
ART 204 Art History II	
MUS 101 Music Appreciation	
THR 120 Theatre Appreciation	
THR 126 Introduction to Theatre	
Additional Humanities and Fine Arts .....	6
HUM 101 Introduction to Humanities I	
HUM 102 Introduction to Humanities II	
HUM 298 Directed Studies in Humanities	
HUM 299 PTK Leadership Development	
PHL 206 Ethics and Society	
REL 100 World Religions	
REL 151 Survey of the Old Testament	
REL 152 Survey of the New Testament	
SPH 106 Fundamentals of Oral Communication	
SPH 107 Fundamentals of Public Speaking	
SPA 101 Introductory Spanish I	
SPA 102 Introductory Spanish II	
SPA 201 Intermediate Spanish I	
<b>Area III: Natural Sciences and Mathematics .....</b>	<b>11</b>
Mathematics .....	3
MTH 110 Finite Mathematics	
MTH 112 Precalculus Algebra	
MTH 113 Precalculus Trigonometry	
MTH 120 Calculus and Its Applications	
MTH 125 Calculus I	

MTH 126 Calculus II	
MTH 227 Calculus III	
MTH 237 Linear Algebra	
MTH 238 Applied Differential Equations I	
Natural Science .....	8
BIO 103 Principles of Biology I	
BIO 104 Principles of Biology II	
CHM 104 Introduction to Inorganic Chemistry	
CHM 105 Introduction to Organic Chemistry	
CHM 111 College Chemistry I	
CHM 112 College Chemistry II	
PHS 111 Physical Science I	
PHS 112 Physical Science II	
PHY 201 General Physics I	
PHY 202 General Physics II	
PHY 213 General Physics with Calculus I	
PHY 214 General Physics with Calculus II	
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>12</b>
*History .....	3
HIS 121 World History I	
HIS 122 World History II	
HIS 201 United States History I	
HIS 202 United States History II	
**Additional History, Social and Behavioral Sciences .....	9
ECO 231 Macroeconomics	
ECO 232 Microeconomics	
GEO 100 World Regional Geography	
POL 211 American National Government	
PSY 200 General Psychology	
PSY 210 Human Growth and Development	
SOC 200 Introduction to Sociology	

\*As part of the General Studies Curriculum, students must complete a six-hour sequence in literature or history.

\*\*No more than six hours of history may be taken for Area IV.

## **Career programs**

### **Associate in Applied Science (A.A.S.)**

The Associate in Applied Science degree is awarded to students who complete the requirements of a specific career or professional program outlined in this catalog. These programs may contain no fewer than 60 and no more than 76 semester hours. Of the total hours in a program, a representative percentage must be courses chosen to ensure competency in reading, writing, oral communication, computer applications, and fundamental mathematics and to satisfy CVCC core requirements. The remaining hours must be taken in the specific area of concentration and

may include related courses and electives. This area of concentration must include 15 semester hours of coursework, with appropriate prerequisites, above the level of elementary courses. In addition, coursework in the area of concentration must follow an orderly, identifiable sequence.

Each career-oriented course and program at CVCC has a primary goal of preparing students for a productive and successful career after graduating from the College. Each curriculum contains college-level courses pertinent to that particular field as well as general education courses that provide a well-rounded college education.

Each program has been designed with the assistance of a community advisory committee composed of people currently working in the field who are aware of the job requirements and job potential. Although the primary objective of career programs is early job entry with potential for growth in the job, further education in these options is possible after two years of college. A growing number of colleges and universities now offer specialized programs leading to a bachelor's degree, and credits in these curricula may be transferable to such programs. An Associate in Applied Science degree candidate who is following a specific Associate in Applied Science program, taking courses in the proper sequence under the guidance of a designated program advisor, may be said to be majoring in that program of study.

All Associate in Applied Science degrees will contain the following General Education core requirements. Not all courses listed will satisfy these requirements in all programs; courses should be selected to ensure that they meet the requirements of an approved program.

## Degree requirements

**Area I: Written Composition ..... 3 - 6 credit hours**

**Area II: Humanities and Fine Arts ..... 3 - 6 credit hours**

Requirements prescribe: Minimum of nine hours in Areas I and II, which could include six hours in Written Composition I and II and three hours in Area II; or three hours in Written Composition I and three hours in Applied Writing or Business Communications and three hours in Area II; or three hours in Area I and six hours in Area II or three hours in Area I with three hours in Speech in Area II, plus three additional hours in Area I or II. Students must choose from the following courses to satisfy the Area II requirement.

ART 100	ENG 272	PHL 206	SPA 201
ART 203	HUM 101	REL 100	SPH 106
ART 204	HUM 102	REL 151	SPH 107
ENG 251	HUM 103	REL 152	THR 120
ENG 252	HUM 299	SPA 101	THR 126
ENG 271	MUS 101	SPA 102	

**Area III: Natural Science and Mathematics..... 9 - 11 credit hours**

Requirements prescribe: Distributed in Mathematics or Science or Computer Science (Data Processing). Minimum of three hours in Mathematics is required. One Computer Science (Data Processing) course (two are preferred) or demonstrated computer literacy skills, or the integration of computer proficiencies within a required discipline-specific course(s). Appropriate 100-level courses (or higher) as denoted in The Alabama Community College System Course Directory may be substituted.

Students enrolled as majors in health-related disciplines for which the AAS degree is awarded must take BIO 103 as the prerequisite for BIO 201, BIO 202, and BIO 220 to assure the transfer of courses within parameters of the AGSC Minimum General Education Semester-Hour Distribution requirements to successfully complete the system-wide biology placement examination.

**Area IV: History, Social, and Behavioral Sciences. .... 3 - 6 credit hours**

Programs in which the AAS represents the terminal award are not required to complete the six-semester-hour sequence in Area IV.

**Minimum general education requirements ..... 18 - 24 credit hours**

**Area V: Professional core, technical concentration, and electives\* ..... 58-52 credit hours**

Courses appropriate to the degree requirements, occupational or technical specialty requirements, core courses, and electives.

Students planning programs of study for which the AAS does not represent the terminal degree, and for which national or regional programmatic licensure and certification are required, should be encouraged to integrate the “General Studies” transfer courses whenever possible.

**Additional degree requirements:**

ORI 101 or ORI 105 is required of all students except transfer students who have completed 14 or more semester hours prior to transferring to CVCC and individuals completing the Associate of Applied Science in Nursing.

CIS 146 is required of all students except those who demonstrate computer literacy through testing administered by the Business Division.

**Area I -V: General studies curricula ..... 76 credit hours**

**Maximum program semester credit hours..... 76 credit hours**

**Semester credit-hour range by award ..... 60 - 76 credit hours**

\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

## A.A.S. - Applied Technology: Air Conditioning and Refrigeration (HVAC) option

This program emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>3</b>
ENG 101 English Composition .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communications .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level math).....	3
CIS 146 Microcomputer Applications.....	3
PHS 112 Physical Science II .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
PSY 200 General Psychology .....	3
<b>Area V: Preprofessional, Major, and Elective Courses .....</b>	<b>49</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts .....	3
INT 101 DC Fundamentals .....	3
INT 103 AC Fundamentals .....	3
ACR 111 Principles of Refrigeration .....	3
ACR 112 HVACR Service Procedures .....	3
ACR 113 Refrigeration Piping Practices.....	3
ACR 119 Fundamentals of Gas Heating Systems .....	3
ACR120 Fundamentals of Electric Heating Systems .....	3
ACR121 Principles of Electricity for HVACR .....	3
ACR 148 Heat Pump Systems .....	3
ACR 183 Special Topics in Air Conditioning and Refrigeration .....	1
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
<b>Total .....</b>	<b>74</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Applied Technology: Automotive Manufacturing option

This program prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. This program includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>3</b>
ENG 101 English Composition .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communications .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level math).....	3
CIS 146 Microcomputer Applications .....	3
PHS 112 Physical Science II .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
PSY 200 General Psychology.....	3
<b>Area V: Preprofessional, Major, and Elective Courses.....</b>	<b>50</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts.....	3
INT 101 DC Fundamentals .....	3
INT 103 AC Fundamentals .....	3
INT 117 Industrial Mechanics .....	3
INT 184 Intro to Programmable Logic Controllers .....	3
INT 284 Advanced Programmable Logic Controllers .....	3
INT 288 Applied Programmable Logic Controllers .....	3
INT 134 Prin. of Industrial Maintenance Welding and Metal Cutting Techniques.....	3
AUT 210 Industrial Robotics .....	3
AUT 211 Industrial Robotics Lab .....	2
AUT 212 Robot operation and Programming .....	3
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
 <b>Total.....</b>	 <b>75</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.



## A.A.S. - Applied Technology: Industrial Maintenance option

This program prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>3</b>
ENG 101 English Composition .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communications .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level math).....	3
CIS 146 Microcomputer Applications.....	3
PHS 112 Physical Science II .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
PSY 200 General Psychology .....	3
<b>Area V: Preprofessional, Major, and Elective Courses .....</b>	<b>48</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts.....	3
INT 101 DC Fundamentals .....	3
INT 103 AC Fundamentals .....	3
INT 113 Motor Controls .....	3
INT 117 Industrial Mechanics .....	3
INT 253 Industrial Robotics .....	3
INT 184 Intro to Programmable Logic Controllers .....	3
INT 284 Advanced Programmable Logic Controllers .....	3
INT 288 Applied Programmable Logic Controllers .....	3
INT 134 Prin. of Industrial Maintenance Welding and Metal Cutting Techniques .....	3
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
<b>Total .....</b>	<b>73</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Applied Technology: Sustainable Construction/ Renewable Energy option

This program emphasizes the tools and materials used in the construction industry. Topics include safety, hand tools, hand held power tools, building codes, construction measurements, and construction materials. This course also integrates renewable energy topics such as solar / thermal principals, sustainable building materials, and photovoltaic principals and design. Upon completion, students should be able to work safely within the industry and operate various hand tools and power equipment. Students will also understand how sustainable construction affects the environment and future economy.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>3</b>
ENG 101 English Composition .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communications .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level math) .....	3
CIS 146 Microcomputer Applications .....	3
PHS 112 Physical Science II .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
PSY 200 General Psychology .....	3
<b>Area V: Preprofessional, Major, and Elective Courses.....</b>	<b>43</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design.....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes	3
ADM 104 Introduction to Thermal/Electrical Principles.....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts.....	3
REN 105 Renewable Technology Awareness .....	1
REN 115 Photovoltaic Principles and Design .....	3
REN 205 Solar Thermal Principles .....	3
REN 215 Photovoltaic Systems and Servicing Procedures .....	3
BUC 112 Construction Measurements and Calculations .....	3
BUC 133 Standard Building Codes .....	3
BUC 210 Current Topics in Building Construction.....	3
BUC 111 Basic Construction Layout.....	3
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
<b>Total .....</b>	<b>68</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Business

The Associate in Applied Science in Business program is designed for individuals who will be seeking employment in business, management, supervision, accounting, retail, technical, and office occupations or for professional development leading to increased job satisfaction and enhancement.

	<b>credit hours</b>
<b>Area I: Written Composition</b> .....	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II.....	3
<b>Area II: Humanities and Fine Arts</b> .....	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics</b> .....	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 149 Introduction to Computers .....	3
<b>Area IV: History, Social, and Behavioral Sciences</b> .....	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses</b> .....	<b>42</b>
<i>Required Business core</i> .....	<i>21</i>
BUS 100 Introduction to Business .....	3
BUS 241 Principles of Accounting I .....	3
BUS 242 Principles of Accounting II .....	3
BUS 275 Principles of Management .....	3
BUS 285 Principles of Marketing .....	3
ECO 231 Principles of Macroeconomics .....	3
ECO 232 Principles of Microeconomics.....	3
<i>**Electives (15 hours ACC, BUS, or MST and 6 hours CIS or OAD)</i> .....	<i>21</i>
ACC, BUS and MST Courses .....	15
CIS or OAD courses .....	6
<b>Additional degree requirements</b> .....	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I.....	2
<b>Total</b> .....	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Business: Accounting option

Accounting is a profession of development, evaluation, and communication of financial and managerial information concerning the performance of a business entity. The Accounting option provides students with the knowledge and technical skills necessary to obtain an entry-level accounting position.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 149 Introduction to Computers .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>42</b>
<i>Required Business core.....</i>	<i>30</i>
ACC140 Payroll Accounting .....	3
ACC 149 Introduction to Accounting Spreadsheets	
(or CIS 113, or OAD 243) .....	3
ACC 150 Computerized General Ledger .....	3
BUS 150 Business Math .....	3
BUS 241 Principles of Accounting I .....	3
BUS 242 Principles of Accounting II .....	3
BUS 263 Legal and Social Environment of Business .....	3
CIS 185 Computer Ethics .....	3
ECO 231 Principles of Macroeconomics .....	3
OAD 130 Electronic Calculations .....	3
** <i>Electives (9 hours ACC, BUS, ECO or MST and 3 hours CIS or OAD) ....</i>	<i>12</i>
ACC, BUS, ECO, or MST Courses .....	9
CIS or OAD Courses .....	3
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Business: Banking and Finance option

The Banking and Finance option is designed for individuals who are preparing to enter the banking industry and for those who are presently employed in the banking industry.

credit hours

<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred).....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 149 Introduction to Computers .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>42</b>
<i>Required Business core .....</i>	<i>24</i>
ACC 149 Introduction to Accounting Spreadsheets	
(or CIS 113 or OAD 243) .....	3
ACC 150 Computerized General Ledger .....	3
BUS 150 Business Math .....	3
BUS 241 Principles of Accounting I .....	3
BUS 242 Principles of Accounting II .....	3
BUS 263 Legal and Social Environment of Business .....	3
ECO 231 Principles of Macroeconomics .....	3
OAD 130 Electronic Calculations .....	3
<i>**Electives (12 hours ACC, BUS, ECO or MST and 6 hours CIS or OAD)...18</i>	
ACC, BUS, ECO, or MST Courses .....	12
CIS or OAD Courses.....	6
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

# A.A.S. - Business: Management and Supervision option

The Management and Supervision option provides a broad background in the field of business and management. The program is designed for individuals who seek to enter management and supervisory positions in the private or public sector.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 149 Introduction to Computers .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>42</b>
<i>Required Business core.....</i>	<i>24</i>
BUS 100 Introduction to Business .....	3
BUS 241 Principles of Accounting I .....	3
BUS 263 Legal and Social Environment of Business .....	3
BUS 275 Principles of Management .....	3
ECO 231 Principles of Macroeconomics .....	3
MST 111 Elements of Supervision .....	3
MST 201 Human Resource Management .....	3
MST 215 Small Business Management .....	3
**Electives (12 hours ACC, BUS, ECO or MST and 6 hours CIS or OAD..18	
ACC, BUS, ECO or MST Courses .....	12
CIS or OAD Courses .....	6
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
 <b>Total .....</b>	 <b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Business: Small Business Management option

The Small Business Management option is designed for individuals seeking employment or advancement in retailing and/or management of a small business.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications.....	3
CIS 149 Introduction to Computers .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>42</b>
<i>Required Business core.....</i>	<i>30</i>
BUS 100 Introduction to Business .....	3
BUS 175 Retailing .....	3
BUS 241 Principles of Accounting I .....	3
BUS 242 Principles of Accounting II .....	3
BUS 275 Principles of Management .....	3
BUS 285 Principles of Marketing .....	3
ECO 231 Principles of Macroeconomics .....	3
MST 111 Elements of Supervision .....	3
MST 201 Human Resource Management .....	3
MST 215 Small Business Management .....	3
** <i>Electives (9 hours ACC, BUS, ECO or MST and 3 hours CIS or OAD)...</i>	<i>12</i>
ACC, BUS, ECO, or MST Courses .....	9
CIS or OAD Courses.....	3
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College.....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students planning to transfer to a four-year institution in Business should take Business Statistics I (BUS 271) as one of their electives.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Business and Office Technology: Administrative Technology option

The Business and Office Technology program is designed for individuals seeking employment in office positions. The program consists of a core of 24 semester hours of general education courses, and the balance of hours selected from one of the areas of concentration, which include: Administrative Technology, Legal Administrative Technology, and Medical Administrative Technology. The Administrative Technology option is designed for individuals seeking office positions specializing in information processing leading to management and office supervisory positions.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 113 Spreadsheet Software Applications (or ACC149 or OAD 243)...	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY, or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>42</b>
<i>Required Business and Office Technology core .....</i>	<i>27</i>
OAD 103 Intermediate Keyboarding .....	3
OAD 125 Word Processing (or CIS 111) .....	3
OAD 130 Electronic Calculations .....	3
OAD 138 Records and Information Management .....	3
OAD 200 Machine Transcription .....	3
OAD 218 Office Procedures .....	3
OAD 242 Office Internship .....	3
OAD 244 Database Applications (or CIS 117) .....	3
OAD 246 Office Graphics and Presentations (or CIS 115) .....	3
<i>Electives (6 hours in CIS and 9 hours in BUS, MST, or ECO) .....</i>	<i>15</i>
CIS courses .....	6
BUS, ECO, or MST courses .....	9
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.



# A.A.S. - Business and Office Technology: Legal Administrative Technology option

The Legal Administrative Technology option is designed for individuals seeking employment in attorney offices, courthouses, and government positions that specialize in preparing technical documents that are the basis for legal records.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
CIS 113 Spreadsheet Software Applications (or ACC 149 or OAD 243) ..	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY, or SOC Elective.....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>45</b>
<i>Required Business and Office Technology core .....</i>	<i>30</i>
OAD 103 Intermediate Keyboarding .....	3
OAD 125 Word Processing (or CIS 111) .....	3
OAD 130 Electronic Calculations .....	3
OAD 138 Records and Information Management .....	3
OAD 201 Legal Terminology .....	3
OAD 202 Legal Transcription .....	3
OAD 203 Legal Office Procedures .....	3
OAD 242 Office Internship (Last Semester) .....	3
OAD 244 Database Applications (or CIS 117) .....	3
OAD 246 Office Graphics and Presentations (or CIS 115) .....	3
<i>Electives (6 hours in CIS and 9 hours in BUS, ECO, or MST).....</i>	<i>15</i>
CIS courses .....	6
BUS, ECO, or MST courses .....	9
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>72</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

# A.A.S. - Business and Office Technology: Medical Administrative Technology option

The Medical Administrative Technology option is designed for individuals seeking employment in a physician’s office, hospital, and medical facilities that specialize in the production of documents that are the basis for medical records.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
CIS 146 Microcomputer Applications .....	3
CIS 113 Spreadsheet Software Applications (or ACC149, or OAD 243)...	3
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
BUS 189 Human Relationships .....	3
or GEO, HIS, POL, PSY, or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>45</b>
<i>Required Business and Office Technology core .....</i>	<i>30</i>
OAD 103 Intermediate Keyboarding .....	3
OAD 125 Word Processing (or CIS 111) .....	3
OAD 130 Electronic Calculations .....	3
OAD 138 Records and Information Management .....	3
OAD 211 Medical Terminology .....	3
OAD 212 Medical Transcription .....	3
OAD 214 Medical Office Procedures .....	3
OAD 242 Office Internship (Last Semester) .....	3
OAD 244 Database Applications (or CIS 117) .....	3
OAD 246 Office Graphics and Presentations (or CIS 115) .....	3
<i>Electives (6 hours in CIS and 9 hours in BUS, ECO, or MST).....</i>	<i>15</i>
CIS courses .....	6
BUS, ECO, or MST courses .....	9
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>72</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student’s program total.

## A.A.S. - Computer Information Systems: CISCO Networking option

The CISCO Networking option prepares students for industry-recognized certification by using materials and curriculum that have been designed for the CCNA Program.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 150 Introduction to Computer Logic and Programming .....	3
CIS 146 Microcomputer Applications .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
GEO, HIS, POL, PSY, or SOC Elective .....	3
or BUS 189 Human Relationships .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>39</b>
<i>Required Computer Information Systems core .....</i>	<i>15</i>
CIS 130 Introduction to Information Systems .....	3
CIS 149 Introduction to Computers .....	3
CIS 185 Computer Ethics .....	3
CIS 268 Software Support .....	3
CIS 269 Hardware Support .....	3
<i>Required Networking core .....</i>	<i>12</i>
CIS 270 CISCO 1 .....	3
CIS 271 CISCO 2 .....	3
CIS 272 CISCO 3 .....	3
CIS 273 CISCO 4 .....	3
<i>Electives .....</i>	<i>12</i>
**CIS courses .....	12
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>66</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may elect to take BUS 105 as a CIS elective.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Computer Information Systems: Information Technology option

The Information Technology option is provides the necessary competencies for individuals to be employed as computer programmers within the information technology industry.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
BUS 215 Business Communications (preferred) .....	3
or ENG102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>9</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 150 Introduction to Computer Logic and Programming .....	3
CIS 146 Microcomputer Applications .....	3
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>3</b>
GEO, HIS, POL, PSY, or SOC Elective .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>40</b>
<i>Required Computer Information Systems core .....</i>	<i>15</i>
CIS 130 Introduction to Information Systems .....	3
CIS 149 Introduction to Computers .....	3
CIS 185 Computer Ethics .....	3
CIS 268 Software Support.....	3
CIS 269 Hardware Support .....	3
<i>Required Information Technology core .....</i>	<i>16</i>
CIS 191 Introduction to Computer Programming Concepts .....	3
and CIS 193 Introduction to Computer Programming Lab .....	1
or CIS 212 Visual Basic Programming .....	3
and CIS 210 Case Study in Computer Skills Application .....	1
CIS 270 CISCO 1 .....	3
CIS 275 Workstation Administration .....	3
CIS 276 Server Administration .....	3
CIS 280 Network Security .....	3
<i>Electives.....</i>	<i>9</i>
**CIS or VCM courses .....	9
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>67</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may elect to take BUS 105 as a CIS elective.

\*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Criminal Justice

The Criminal Justice Program is designed for students with an interest in the criminal justice field and law enforcement professions. It prepares students for a career as a law enforcement officer, corrections officer, investigator, court administrator, private security officer, or customs agent. Program graduates are employed with local, state, and federal agencies or with private agencies. Students employed in related fields may use the program as a building block for career advancement or further education. Students gain knowledge of local, state, and federal statutes, civil liberties, policing, the justice system, ethics, constitutionalism, and public safety issues.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
ENG 102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
PHS 111 Physical Science I .....	4
or BIO 103 Principles of Biology I .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>6</b>
PSY 200 General Psychology .....	3
POL 220 State and Local Government .....	3
or POL 211 American National Government .....	3
or HIS 121/122/201/202 .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>41</b>
<i>Required Criminal Justice courses .....</i>	<i>14</i>
CRJ 100 Introduction to Criminal Justice .....	3
CRJ 110 Introduction to Law Enforcement .....	3
CRJ 178 Narcotics/Dangerous Drugs .....	3
CRJ 216 Police Organization and Administration .....	3
EMS 100 Cardiopulmonary Resuscitation I .....	1
EMS 104 First Aid for Students of Health Related Professions .....	1
<i>Electives (CRJ and/or HLS100) .....</i>	<i>24</i>
<b>Additional degree requirements .....</b>	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

# A.A.S. - Fire Science

The Fire Science program is a two-year technical program designed for individuals employed as fire fighters or for individuals who are seeking employment in the fire science field. Opportunities include fire safety specialists, inspectors, etc., in industry and commerce, as well as fire fighters in the public sector. The program provides educational experience in basic fire prevention, control, and loss. Individuals presently employed as fire fighters in government or industry will be especially interested in the program as a means of professional advancement. Fire science courses are scheduled to meet the needs of in-service firefighting personnel.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
ENG 102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
PHS 112 Physical Science II .....	4
or CHM 104 Introduction to Inorganic Chemistry (or higher level CHM) .....	4
or BIO 103 Principles of Biology I .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>6</b>
PSY 200 General Psychology .....	3
POL 220 State and Local Government .....	3
or POL 211 American National Government .....	3
or HIS 121/122/201/202 .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>41</b>
<i>Required Fire Science courses .....</i>	<i>14</i>
**FSC 101 Introduction to Fire Science .....	3
FSC 110 Building Construction Principles .....	3
FSC 130 Introduction to Fire Suppression .....	3
FSC 299 Legal Aspects of Fire Service .....	3
EMS 100 Cardiopulmonary Resuscitation I.....	1
EMS 104 First Aid for Students of Health Related Professions .....	1
<i>Electives (FSC and/or EMS).....</i>	<i>24</i>
<b>Additional degree requirements .....</b>	<b>3</b>
***ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total .....</b>	<b>69</b>

\* Students must choose from among the courses listed on page 8.  
 \*\*After successful completion of Fire Fighter I Certification, three semester hours of credit will be granted in the A.A.S. Degree program for FSC 101. Successful completion requires a minimum overall score of 70 percent on the state certification examination and submission of official documentation from the appropriate state agency to the College.  
 \*\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student’s program total.

## A.A.S. - Homeland Security

The Homeland Security program provides the knowledge and skills necessary for security professionals, including business, industry, and corporate managers who are responsible for risk assessment, infrastructure management, physical and information security, and human capital management. Students will benefit from a dynamic real-world approach to actual and potential scenarios. From terrorism to emergency management, these programs will provide students with current information and transferable skills that are critical to meeting employer needs in both the homeland security and public safety sectors.

Students will build skills toward Incident Command System (ICS) and National Incident Management System (NIMS) Certifications. In performance-based labs, designed to develop proficiencies in Triage, Decontamination, and Hazardous Materials Command, Control, Communications, Computers, Information, and Intelligence (C4I2) as well as Response Management of Terrorist Threats and Natural Disasters, students will use equipment actually employed in the field. In computer-simulation logs and using Advanced Combat and Tactical Simulations (ACATS) software, originally designed for and used by the U.S. Departments of Defense and Homeland Security to practice and improve strategy development, students will design, develop, and implement terrorist and natural disaster exercises.

	<b>credit hours</b>
<b>Area I: Written Composition .....</b>	<b>6</b>
ENG 101 English Composition I .....	3
ENG 102 English Composition II .....	3
<b>Area II: Humanities and Fine Arts .....</b>	<b>6</b>
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
*Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science and Mathematics .....</b>	<b>10</b>
MTH 100 Intermediate College Algebra (or higher level MTH) .....	3
CIS 146 Microcomputer Applications .....	3
PHS 112 Physical Science II .....	4
or CHM 104 Introduction to Inorganic Chemistry (or higher level CHM).....	4
or BIO 103 Principles of Biology I .....	4
<b>Area IV: History, Social, and Behavioral Sciences .....</b>	<b>6</b>
PSY 200 General Psychology .....	3
POL 220 State and Local Government .....	3
or POL 211 American National Government .....	3
or HIS 121/122/201/202 .....	3
<b>Area V: Preprofessional, major, and elective courses .....</b>	<b>41</b>
<i>Required Homeland Security .....</i>	<i>14</i>
HLS 100 Introduction to Homeland Security and Public Safety .....	3
HLS 190 Critical Infrastructure Assessment and Protection .....	3
HLS 215 Mass Casualty and Triage Management .....	3
HLS 241 Incident Management Team Operations .....	3
EMS 100 Cardiopulmonary Resuscitation I .....	1
EMS 104 First Aid for Students of Health Related Professions .....	1
<i>Electives .....</i>	<i>24</i>
Must be HLS, HLS dual listed or EMS courses .....	24

\* Students must choose from among the courses listed on page 78.

<b>Additional degree requirements</b> .....	<b>3</b>
**ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development I .....	2
<b>Total</b> .....	<b>69</b>

## A.A.S. - Medical Assisting

The Medical Assisting Program is intended to prepare students to perform administrative and clinical tasks to assist the physician in many areas of the medical practice. The duties of medical assistants may vary from administrative duties to clinical care and treatment of the patient. Students will learn to take and record medical histories, vital signs, administer medication, sterilize instruments, assist with minor office procedures, and handle patient emergencies. In the laboratory area, students will learn to obtain blood samples and perform routine laboratory procedures. In the administrative area, students will learn to update and file patient medical records, fill out insurance forms and arrange for hospital admissions and laboratory services. Additional administrative duties may include answering phones, greeting patients, handling correspondence, scheduling appointments and billing. Prior to completion of the course of study, students will complete a 250-hour preceptorship in a medical setting.

Upon completion of the program, the student will be awarded the A.A.S. – Associate in Applied Science degree and will be eligible to sit for a certification exam.

	<b>credit hours</b>
<b>Area I: Written Composition</b> .....	<b>3</b>
ENG 101 English Composition I .....	3
<b>Area II: Humanities and Fine Arts</b> .....	<b>6-7</b>
SPH 107 Fundamentals of Public Speaking .....	3
*Humanities/Fine Arts Elective .....	3-4
<b>Area III: Natural Science and Mathematics</b> .....	<b>10</b>
MTH 100 Intermediate College Algebra (or higher) .....	3
BIO 103 Principles of Biology .....	4
CIS 146 Microcomputer Applications .....	3
<b>Area IV: History, Social, and Behavioral Sciences</b> .....	<b>3</b>
Psychology Elective .....	3
<b>Area V: Preprofessional, major, and elective courses</b> .....	<b>49</b>
<b>Required courses</b> .....	<b>47</b>
MAT 101 Medical Terminology .....	3
or HPS 105 Medical Terminology .....	3
MAT 102 Medical Assisting Theory I .....	3
MAT 103 Medical Assisting Theory II .....	3
MAT 111 Clinical Procedures I for the Medical Assistant .....	3
MAT 120 Medical Administrative Procedures I .....	3
MAT 121 Medical Administrative Procedures II .....	3
MAT 125 Laboratory Procedures I for the Medical Assistant .....	3
MAT128 Medical Law and Ethics for the Medical Assistant .....	3

\* Students must choose from among the courses listed on page 78.

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.



MAT 200	Management of Office Emergencies .....	3
MAT 211	Clinical Procedures II for the Medical Assistant .....	3
MAT 215	Laboratory Procedures II for the Medical Assistant .....	3
MAT 216	Medical Pharmacology for the Medical Office .....	3
MAT 220	Medical Office Insurance .....	3
MAT 221	Medical Transcription .....	3
MAT 229	Medical Assisting Preceptorship .....	3
EMS 100	Cardiopulmonary Resuscitation .....	1

**Additional degree requirements .....** **3**

**ORI 101	Orientation to College .....	1
WKO 101	Workplace Skills Development .....	2

**Total .....** **71 - 72**

\*\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

**Suggested course sequence**

<b>First Term</b>	<b>Second Term</b>	<b>Third Term</b>
ORI 101/105	CIS 146	Humanities Elective
EMS 100	MTH 100	MAT 103
BIO 103	MAT 102	MAT 120
ENG 101	MAT 111	MAT 121
MAT 101		MAT 125
		MAT 211
<b>Fourth Term</b>	<b>Fifth Term</b>	
MAT 200	PSY 200	
MAT 215	SPH 106 or 107	
MAT 216	WKO 101	
MAT 220	MAT 128	
MAT 221	MAT 229	

**Admission requirements**

All students entering the Medical Assisting Program must meet the following admission requirements.

1. Must be high school graduates or possess a GED certificate.
2. Must submit all required health documents prior to preceptorship course (MAT 229/239). All required health documents must be dated within six months of entering pre-ceptorship.
3. Must complete a criminal background check and drug screen prior to preceptorship course (MAT 229/239). All criminal background checks and drug screens must be dated within 90 days of entering preceptorship.
4. Must have a valid CPR card prior to entering preceptorship.
5. Must meet the essential functions required for medical assisting. As a member of the healthcare team these essential functions include visual acuity with corrective lenses, if required; hearing ability with auditory aids to understand the normal speaking voice without viewing the speaker's face; sufficient physical ability to question the client and relay information about the client verbally to others; and manual dexterity to provide

safe, effective procedures in delivery of health care. Reasonable accommodations will be considered if a student is unable to meet the essential functions.

6. All developmental coursework must be completed prior to entering the medical assisting program and may require additional time to complete the program.
7. Must be able to comply with any additional requirements as outlined by the clinical agencies such as dress code and confidentiality training.

### Progression

Each term, students are allowed to progress in the Medical Assisting Program as they meet the following criteria:

1. Receive a grade of 'C' or above in all MAT courses.
2. Receive a 'satisfactory' rating for all clinical, administrative, and laboratory skills components.
3. Receive a score of 80 percent or higher on any drug calculation exam.

Students are limited to a total of two attempts in any MAT course before advancing in the Medical Assisting Program. Withdrawals are allowed according to College policy. A grade of 'W' will be recorded as a withdrawal. Grades of 'F' and 'D' will be considered unsuccessful attempts

### Readmission

Students who are not enrolled in the Medical Assisting Program for two or more consecutive terms, excluding summer terms, are required to meet current admission criteria and to comply with the current program of study. Previous work is subject to reevaluation under the policies and program requirements in effect at the time of readmission to the Medical Assisting Program.

### Transfer students

Students who have been enrolled in other programs are evaluated individually to determine appropriate placement.

## A.A.S. - Nursing (ADN)

### Associate Degree Nursing Curriculum

The Associate Degree Nursing Program enables the student to complete a 5-semester curriculum leading to an Associate in Applied Science degree in Nursing. In order to graduate from the program, the student must complete a total of 72 semester hours, including 30 hours of general education credit and 42 hours of nursing core courses. Upon successful completion of the curriculum, the student will be qualified to apply to write the National Council Licensure Examination: NCLEX –RN.

The nursing program is approved by the Alabama Board of Nursing. All agencies used as clinical experience for students are approved by their appropriate accrediting organization.

It is important for nursing students to note however, that the review of candidates for eligibility for initial and continuing licensure in Alabama will include questions concerning such matters as whether they have ever been arrested or convicted of a criminal offense and whether they have ever been arrested for or convicted of driving under the influence of alcohol. Application to write the examination may be denied on the basis of the review.

<b>Area I:</b>	<b>Written and Oral Communication.....</b>	<b>6</b>
	ENG 101 English Composition .....	3
	SPH 106 Fundamentals of Oral Communication .....	3
	or SPH 107 Fundamentals of Public Speaking .....	3
<b>Area II:</b>	<b>Humanities and Fine Arts .....</b>	<b>3</b>
	*Humanities/Fine Arts Elective .....	3
<b>Area III:</b>	<b>Natural Science, Mathematics, and Computer Science .....</b>	<b>15</b>
	BIO 201 Human Anatomy and Physiology I .....	4
	BIO 202 Human Anatomy and Physiology II .....	4
	BIO 220 Microbiology .....	4
	MTH 100 Intermediate College Algebra or higher .....	3
<b>Area IV:</b>	<b>History, Social, and Behavioral Sciences. ....</b>	<b>6</b>
	PSY 200 General Psychology .....	3
	PSY 210 Human Growth and Development .....	3
<b>Area V:</b>	<b>Career and Technical Courses.....</b>	<b>44</b>
	Required Field of Concentration Courses	
	NUR 102 Fundamentals of Nursing .....	6
	NUR 103 Health Assessment.....	1
	NUR 104 Introduction to Pharmacology .....	1
	NUR 105 Adult Nursing .....	8
	NUR 106 Maternal and Child Nursing .....	5
	NUR 201 Nursing Through the Lifespan I .....	5
	NUR 202 Nursing Through the Lifespan II .....	6
	NUR 203 Nursing Through the Lifespan III .....	6
	NUR 204 Role Transition for the Registered Nurse .....	4
	<b>Total .....</b>	<b>72</b>

**Suggested Course Sequence**

First Term	Second Term	Third Term
MTH 100	ENG 101	PSY 200
BIO 201	BIO 202	BIO 220
NUR 102	NUR 105	NUR 201
NUR 103	NUR 106	
NUR 104		
Fourth Term	Fifth Term	
SPH 106	Humanities Elective	
or SPH 107	NUR 203	
PSY 210	NUR 204	
NUR 202		

**Minimum admission standards include:**

1. Unconditional admission to the College.
2. Receipt of completed application for the Associate Degree Nursing Program by the published deadline.

\* Students must choose from among the courses listed on page 78.

3. A minimum of 2.50 GPA from the last 24 hours of college credit if prior college coursework exists.
4. A minimum of 2.50 cumulative high school GPA if no prior college coursework exists (GED acceptable in lieu of high school transcript).
5. Eligibility for:
  - a. English 101 and Math 100 as determined by college policy
  - b. BIO 201 during the first term of nursing courses. (as a prerequisite to BIO 201, student must successfully complete BIO 103 or achieve a passing score on the ACCS approved placement exam).
6. Good standing with the College.
7. Meeting the essential functions or technical standards required for nursing.
8. Completion of the Test of Essential Academic Skills (TEAS) must have been taken prior to application.
9. Official transcripts from every college attended must be submitted to the admissions office prior to the published deadline.
10. Unofficial transcripts from every college attended must be submitted with the nursing application prior to the published deadline.

Admission to the Associate Degree in Nursing Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. Meeting minimal requirements does not guarantee acceptance.

#### **Calculation of points for students meeting minimum admission standards:**

After meeting all minimum requirements, applicants are rank-ordered using a point system based on:

1. Your score from the Test of Essential Academic Skills (TEAS).
  - a. The TEAS must have been taken within the past three years for consideration. The applicant will be given points according to percentage score equivalent.
2. Points from selected college courses (i.e. BIO 201, BIO 202, BIO 220) or selected high school courses (i.e. Algebra II or higher level math, highest level Biology, Chemistry)
  - a. Points are awarded according to grade earned: A = 30, B = 20, C = 10.
3. Students may be awarded up to 10 points as determined by college policy and procedures.
  - a. Students who have completed BIO 201, BIO 202, BIO 220 at CVCC will earn five (5) additional points.
  - b. Students who have completed ENG 101, MTH 100 (or higher), BIO 201, BIO 202, BIO 220, PSY 200, PSY 210, SPH 106 or SPH 107 and a Humanities Elective at CVCC will earn an additional ten (10) points.
4. A total of 250 points are possible.

**LICENSURE:** Each student is responsible for mailing his/her own application to the Board of Nursing in the state in which he/she is applying for initial licensure, as well as to NCLEX. Each student is also responsible for mailing the application and meeting deadlines that the Board may announce.

## A.A.S - Nursing (Mobility)

The Mobility Program enables the Licensed Practical Nurse (LPN) to complete a one-year curriculum leading to an Associate in Applied Science degree. The program requires 72 semester hours for completion. NUR 200: Nursing Career Mobility Assessment is a course designed to provide LPN mobility students with self-directed opportunities to prepare for placement into the third semester of the ADN program. Emphasis is on assessment and validation of selected theory, process, and skills covered in NUR 102, 103, 104, 105, and 106. Graduates of the approved Alabama College System Practical Nursing standardized curriculum may be eligible to enter the ADN program during the third semester without taking these assessments if graduation occurred within the previous two years. All other Licensed Practical Nurses must successfully complete this course. This course must be taken and completed in the spring semester before entering the program in summer term. The nursing program is approved by the Alabama Board of Nursing.

<b>Prerequisite Hours</b> .....	<b>14</b>
<b>Area I: Written and Oral Communication</b> .....	<b>3</b>
SPH 106 Fundamentals of Oral Communication or .....	3
SPH 107 Fundamentals of Public Speaking .....	3
<b>Area II: Humanities and Fine Arts</b> .....	<b>3</b>
Humanities/Fine Arts Elective .....	3
<b>Area III: Natural Science, Mathematics, and Computer Science</b> .....	<b>4</b>
BIO 220 Microbiology .....	4
<b>Area IV: History, Social, and Behavioral Sciences</b> .....	<b>6</b>
PSY 200 General Psychology .....	3
PSY 210 Human Growth and Development .....	3
<b>Area V: Career and Technical Courses</b> .....	<b>27</b>
<b>Required Field of Concentration Courses</b>	
*NUR 200 Nursing Career Mobility Assessment .....	6
NUR 201 Nursing Through the Lifespan I .....	5
NUR 202 Nursing Through the Lifespan II.....	6
NUR 203 Nursing Through the Lifespan III .....	6
NUR 204 Role Transition for the Registered Nurse .....	4
<b>Total</b> .....	<b>72</b>

\*Students who successfully complete this course are awarded 15 non-traditional hours.

### Suggested course sequence

<b>First Term</b>	<b>Second Term</b>	<b>Third Term</b>	<b>Fourth Term</b>
NUR 200	PSY 200	SPH 106 or	Humanities Elective
	BIO 220	SPH 207	NUR 203
	NUR 201	PSY 210	NUR 204
		NUR 202	

### Minimum admission standards include:

1. Unconditional admission to the College.
2. Receipt of completed application for the Associate Degree Nursing – Mobility Program by the published deadline.

3. A minimum of 2.50 GPA from the last 24 hours of college credit if prior college course-work exists.
4. Good standing with the College.
5. Meeting the essential functions or technical standards required for nursing.
6. Completion of the Test of Essential Academic Skills (TEAS) must have been taken prior to application.
7. Official transcripts from every college attended must be submitted to the admissions office prior to the published deadline.
8. Unofficial transcripts from every college attended must be submitted with the nursing application prior to the published deadline.
9. Completion of the following prerequisite courses:
  - a. ENG 101 – English Composition
  - b. MTH 100 or higher – Intermediate College Algebra (or higher)
  - c. BIO 201 – Human Anatomy and Physiology I
  - d. BIO 202 – Human Anatomy and Physiology II
  - e. NUR 200 – Students conditionally accepted to the Mobility program will be required to complete this course with a grade of “C” or better. Students are exempt from this course only if they have completed the Alabama Statewide Standardized Curriculum within two years of the published application deadline.
10. Proof of unencumbered Alabama licensure.
11. Employment Verification must be submitted documenting at least 500 clock hours worked within the past 12 months. Hours must be completed prior to the posted deadline.

Admission to the Associate Degree in Nursing – Mobility Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. Meeting minimal requirements does not guarantee acceptance.

### **Calculation of points for students meeting minimum admission standards:**

After meeting all minimum requirements, applicants are rank-ordered using a point system based on:

1. Your score from the Test of Essential Academic Skills (TEAS).
2. The TEAS must have been taken within the past three years for consideration. The applicant will be given points according to percentage score equivalent.
3. Points from selected college courses (i.e. BIO 201, BIO 202, BIO 220).
4. Points are awarded according to grade earned: A = 30, B = 20, C = 10.
5. Students may be awarded up to 10 points as determined by college policy and procedures.
6. Students who have completed BIO 201, BIO 202, BIO 220 at CVCC will earn five (5) additional points.
7. Students who have completed ENG 101, MTH 100 (or higher), BIO 201, BIO 202, BIO 220, PSY 200, PSY 210, SPH 106 or SPH 107 and a Humanities Elective at CVCC will earn an additional ten (10) points.
8. A total of 250 points are possible.

**LICENSURE:** Each student is responsible for mailing his/her own application to the Board of Nursing in the state in which he/she is applying for initial licensure, as well as to NCLEX. Each student is also responsible for mailing the application and meeting deadlines that the Board may announce.

## **Academic standards of progress for nursing students**

### ***The Alabama Community College System Nursing Education Program Progression Policy***

Please note that these policies are subject to revision by the Alabama Community College System. In order to continue in the nursing program, the student must:

1. Maintain a grade of C or better in all required general education and nursing courses and maintain a 2.0 cumulative GPA.
2. Unless previously completed, students must complete all required general education courses according to The Alabama Community College System Nursing Education curriculum. Exceptions must be approved by the nursing program director.
3. Be acceptable by clinical agencies for clinical experiences.
4. Maintain ability to meet essential functions for nursing with or without reasonable accommodations.
5. Students must successfully complete the nursing education program:
  - a. Within 48 months from initial enrollment in courses with an NUR prefix for ADN students; or
  - b. Within 24 months from initial enrollment in courses with an NUR prefix for PN students.
  - c. Within 24 months from initial enrollment in NUR201 for Mobility students.
6. Maintain current CPR at the health care provider level.
7. A student that has an unsuccessful attempt in a nursing course (W, D, or F) cannot progress until the course is completed successfully. Course repetition will be based on instructor availability and program resources.
8. Students whose progression through the nursing program is interrupted and who desire to be reinstated in the program must schedule an appointment with a nursing faculty advisor to discuss reinstatement. In order to be eligible for reinstatement, the following criteria must be met:
  - a. Students must apply for the nursing program and readmission to the college if not currently enrolled;
  - b. Requests must be received by published deadline;
  - c. Students must request reinstatement within one year from the term of withdrawal or failure;
  - d. Students must adhere to nursing curriculum and/or program policies and procedures effective at the point of reinstatement.
9. Withdrawal and/or a D or F in one or more nursing courses in a term is considered one unsuccessful attempt.
10. A total of two unsuccessful attempts (D, F, or withdrawal) in the nursing program will result in dismissal.
11. If a student has been unsuccessful in the associate degree nursing program, the student may apply for admission to the practical nursing program. If a student has been unsuccessful in the mobility program, the student may apply for admission to the generic program.
12. Students who have two unsuccessful attempts in a specific program (ADN/PN/Mobility) may apply for admission as a new student to any nursing program within the Alabama Community College system, provided:
  - a. the student meets current entry requirements;

- b. at least two years have elapsed since the student's dismissal from a specific program, and
- c. the student was not dismissed from the previous program for disciplinary reasons or for unsafe/unsatisfactory client care in the clinical area.

### ***Reinstatement policy***

1. Students whose progression through the nursing program is interrupted and who desire reinstatement in the program must schedule an appointment with a nursing faculty advisor to discuss reinstatement. Students must meet the following criteria:
  - a. Students must apply for the nursing program and readmission to the College if not currently enrolled;
  - b. Requests must be received by published deadline;
  - c. Students must request reinstatement within one year from the term of withdrawal or failure;
  - d. Students must adhere to nursing curriculum and/or program policies and procedures effective at the point of reinstatement.
2. Reinstatement to the nursing program is not guaranteed. Selection for reinstatement is based on GPA at the current institution and space availability. Reinstatement will be denied due to, but not limited to, any of the following circumstances:
  - a. Grade point average is less than 2.0 from courses completed at the current institution;
  - b. Refusal by clinical agencies to accept the student for clinical experiences;
  - c. Twelve months have elapsed since the student was enrolled in a nursing course;
  - d. Student has been dismissed from the program.
3. Students dismissed from the previous program for disciplinary reasons and/or unsafe/unsatisfactory client care in the clinical area will not be allowed reinstatement to the nursing program.

### ***Transfer policy***

**Please note that these policies are subject to revision by the Alabama Community College System.**

The transfer policy applies only to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

#### **Must meet minimum admission standards for the nursing program.**

1. Must possess a grade of C or better in all general education taken at another institution and possess a minimum of a 2.5 cumulative GPA at time of transfer.
2. Students must successfully complete the program:
  - a. Within 48 months from initial semester for ADN students or;
  - b. Within 24 months from initial semester for PN and Mobility students.
3. Must be a student in good standing and eligible to return to the previous nursing program.
4. Provide a letter of recommendation from the Dean/Director of the previous program.
5. Complete at least 25 percent of the total program at the accepting institution.
6. Acceptance of transfer students into nursing programs is limited by the number of faculty and clinical facilities available. Meeting minimal standards does not guarantee acceptance.

### **The Alabama Community College System Nursing programs essential functions**

The Alabama Community College System endorses the Americans' with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.



Physical, cognitive, psychomotor, affective and social abilities are required in unique combinations to provide safe and effective nursing care. The applicant/student must be able to meet the essential functions with or without reasonable accommodations throughout the program of learning. Admission, progression and graduation are contingent upon one's ability to demonstrate the essential functions delineated for the nursing programs with or without reasonable accommodations. The nursing programs and/or its affiliated clinical agencies may identify additional essential functions. The nursing programs reserve the right to amend the essential functions as deemed necessary.

In order to be admitted and to progress in the nursing program one must possess a functional level of ability to perform the duties required of a nurse. Admission or progression may be denied if a student is unable to demonstrate the essential functions with or without reasonable accommodations.

The essential functions delineated are those deemed necessary the Alabama Community College System nursing programs. No representation regarding industrial standards is implied. Similarly, any reasonable accommodations made will be determined and applied to the respective nursing program and may vary from reasonable accommodations made by healthcare employers.

The essential functions delineated below are necessary for nursing program admission, progression and graduation and for the provision of safe and effective nursing care. The essential functions include but are not limited to the ability to:

## **1. Sensory Perception**

### **a. Visual**

- i. Observe and discern subtle changes in physical conditions and the environment ii. Visualize different color spectrums and color changes
- iii. Read fine print in varying levels of light
- iv. Read for prolonged periods of time
- v. Read cursive writing
- vi. Read at varying distances
- vii. Read data/information displayed on monitors/equipment b.

### **Auditory**

- i. Interpret monitoring devices
- ii. Distinguish muffled sounds heard through a stethoscope
- iii. Hear and discriminate high and low frequency sounds produced by the body and the environment
- iv. Effectively hear to communicate with others

### **c. Tactile**

- i. Discern tremors, vibrations, pulses, textures, temperature, shapes, size, location, and other physical characteristics

### **d. Olfactory**

- i. Detect body odors and odors in the environment

## **2. Communication/Interpersonal Relationships**

- a. Verbally and in writing, engage in a two-way communication and interact effectively with others, from a variety of social, emotional, cultural, and intellectual backgrounds
- b. Work effectively in groups
- c. Work effectively independently
- d. Discern and interpret nonverbal communication e. Express one's ideas and feelings clearly
- f. Communicate with others accurately in a timely manner

g. Obtain communications from a computer

### **3. Cognitive/Critical Thinking**

- a. Effectively read, write and comprehend the English language
- b. Consistently and dependably engage in the process of critical thinking in order to formulate and implement safe and ethical nursing decisions in a variety of health care settings
- c. Demonstrate satisfactory performance on written examinations including mathematical computations without a calculator
- d. Satisfactorily achieve the program objectives

### **4. Motor Function**

- a. Handle small delicate equipment/objects without extraneous movement, contamination or destruction
- b. Move, position, turn, transfer, assist with lifting or lift and carry clients without injury to clients, self or others
- c. Maintain balance from any position
- d. Stand on both legs
- e. Coordinate hand/eye movements
- f. Push/pull heavy objects without injury to client, self or others
- g. Stand, bend, walk and/or sit for 6-12 hours in a clinical setting performing physical activities requiring energy without jeopardizing the safety of the client, self or others
- h. Walk without a cane, walker or crutches
- i. Function with hands free for nursing care and transporting items
- j. Transport self and client without the use of electrical devices
- k. Flex, abduct and rotate all joints freely
- l. Respond rapidly to emergency situations
- m. Maneuver in small areas
- n. Perform daily care functions for the client
- o. Coordinate fine and gross motor hand movements to provide safe effective nursing care
- p. Calibrate/use equipment
- q. Execute movement required to provide nursing care in all health care settings
- r. Perform CPR and physical assessment
- s. Operate a computer

### **5. Professional Behavior**

- a. Convey caring, respect, sensitivity, tact, compassion, empathy, tolerance and a healthy attitude toward others
- b. Demonstrate a mentally healthy attitude that is age appropriate in relationship to the client
- c. Handle multiple tasks concurrently
- d. Perform safe, effective nursing care for clients in a caring context
- e. Understand and follow the policies and procedures of the College and clinical agencies
- f. Understand the consequences of violating the student code of conduct
- g. Understand that posing a direct threat to others is unacceptable and subjects one to discipline
- h. Meet qualifications for licensure by examination as stipulated by the Alabama Board of Nursing
- i. Not to pose a threat to self or others
- j. Function effectively in situations of uncertainty and stress inherent in providing nursing care

- k. Adapt to changing environments and situations l.  
Remain free of chemical dependency
- m. Report promptly to clinicals and remain for 6-12 hours on the clinical unit
- n. Provide nursing care in an appropriate time frame
- o. Accepts responsibility, accountability, and ownership of one's actions
- p. Seek supervision/consultation in a timely manner
- q. Examine and modify one's own behavior when it interferes with nursing care or learning

Upon admission, an individual who discloses a disability can request reasonable accommodations. Individuals will be asked to provide documentation of the disability in order to assist with the provision of appropriate reasonable accommodations. The respective College will provide reasonable accommodations but is not required to substantially alter the requirements or nature of the program or provide accommodations that inflict an undue burden on the respective College. In order to be admitted one must be able to perform all of the essential functions with or without reasonable accommodations. If an individual's health changes during the program of learning, so that the essential functions cannot be met with or without reasonable accommodations, the student will be withdrawn from the nursing program. The nursing faculty reserves the right at any time to require an additional medical examination at the student's expense in order to assist with the evaluation of the student's ability to perform the essential functions.

Requests for reasonable accommodations should be directed to:

Vickie Williams, Student ADA Coordinator  
334-214-4803  
vickie.williams@cv.edu  
CVCC  
2602 College Drive  
Phenix City, AL 36869

## A.A.S. - Visual Communications: Multimedia Graphic Design option

The Visual Communications program prepares students for careers in graphics and design for print media, multimedia, and other applications of commercial art. The Multimedia option concentrates on creative and technical processes involved in print-media production (publishing and advertising, for example) as well as multimedia production for the World Wide Web and other Internet, presentation, and digital multimedia applications. Most courses require the student to use industry-standard software on a personal computer.

**credit hours**

<b>Area I: Written Composition</b>	
ENG 101 English 101 .....	3
<b>Area II: Humanities and Fine Arts</b>	
ART 100 Art Appreciation .....	3
PHL 116 Logic .....	3
<b>Area III: Natural Science and Mathematics</b>	
MTH 100 Intermediate College Algebra or higher level MTH .....	3
CIS 146 Microcomputer Applications .....	3
CIS 150 Introduction to Computer Logic and Programming .....	3
<b>Area IV: History, Social, and Behavioral Sciences</b>	
Approved History, Sociology, or Psychology course .....	3
<b>Area V: Preprofessional, major, and elective courses</b>	
<i>Required Visual Communications core</i> .....	<b>30</b>
ART 121 Two-Dimensional Composition .....	3
CIS 151 Graphics for the Worldwide Web .....	3
CIS 160 Multimedia for the World Wide Web .....	3
CIS 207 Introduction to Web Development .....	3
VCM 145 Introduction to Digital Photography .....	3
VCM 150 Typography .....	3
VCM 171 Graphics Software Applications .....	3
VCM 172 Digital Illustration 1 .....	3
VCM 185 Digital Imaging 1 .....	3
VCM 254 Graphic Design .....	3
<i>Required Multimedia core</i> .....	<b>15</b>
ART 113 Drawing 1 .....	3
VCM 193 Digital Publishing 1 .....	3
VCM 253 Graphic Design Basics .....	3
Approved elective in major .....	3
VCM 270, VCM 273, or CIS 294 .....	3
<b>Additional Degree Requirements</b>	
*ORI 105 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>69</b>

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## A.A.S. - Visual Communications: Simulation and Modeling option

The Visual Communications program prepares students for careers in graphics and design for print media, multimedia, and other applications of commercial art. The Simulation and Modeling option concentrates on creative and technical processes involved in production of interactive three-dimensional and virtual-reality for use in military applications (crisis management simulation, for example) as well as industrial applications, which include 3-D animation for gaming.

	<b>credit hours</b>
<b>Area I: Written Composition</b>	
ENG 101 English 101 .....	3
<b>Area II: Humanities and Fine Arts</b>	
ART 100 Art Appreciation .....	3
PHL 116 Logic .....	3
<b>Area III: Natural Science and Mathematics</b>	
MTH 100 Intermediate College Algebra or higher level MTH .....	3
CIS 146 Microcomputer Applications .....	3
CIS 150 Introduction to Computer Logic and Programming .....	3
or CIS 153 Introduction to Unity 3D Scripting .....	3
<b>Area IV: History, Social, and Behavioral Sciences</b>	
Approved History, Sociology, or Psychology course .....	3
<b>Area V: Preprofessional, major, and elective courses</b>	
<i>Required Visual Communications core</i> .....	<b>30</b>
ART 121 Two-Dimensional Composition .....	3
CIS 160 Multimedia for the World Wide Web .....	3
CIS 207 Introduction to Web Development .....	3
VCM 145 Introduction to Digital Photography .....	3
VCM 150 Typography .....	3
VCM 171 Graphics Software Applications .....	3
VCM 172 Digital Illustration 1 .....	3
VCM 185 Digital Imaging 1 .....	3
VCM 254 Graphic Design .....	3
CIS 151 Graphics for the Worldwide Web .....	3
<i>Required Simulation and Modeling core</i> .....	<b>16</b>
CIS 191 Introduction to Computer Programming Concepts .....	3
CIS 193 Lab for CIS 191 .....	1
CIS 223 Three-Dimensional Computer Modeling .....	3
CIS 224 Three-Dimensional Computer Animation .....	3
VCM 250 Introduction to Technical Illustration .....	3
VCM 270, VCM 273, or CIS 294 .....	3
(Supervised Study in Graphics/Computer Graphics; Special Topics)	
Approved Elective in Major .....	3
<b>Additional Degree Requirements</b>	
ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>70</b>

## Certificate programs

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Certificate programs, consisting of college courses primarily in the major area of concentration, are designed for individuals already employed who desire to acquire new skills, and for individuals who desire to obtain an employable skill in the least possible time. Students should consult the course descriptions in this catalog to determine course prerequisites.

Standard certificate programs are comprised of at least 30 credit-hours but not more than 60 credit-hours. Short-term certificate programs, which are highly specific to a particular job and may be completed in one or two semesters, total at least 9 credit-hours but not more than 29 credit-hours.

### Certificate program requirements

To be eligible for a Certificate of Completion, a student must satisfy the following requirements:

1. Meet all requirements for admission to the program.
2. Complete at least one-half the total semester credit hours in the program at Chattahoochee Valley Community College.
3. Fulfill all the course requirements listed for a specific certificate program.
4. Earn a 2.0 cumulative GPA.
5. Be enrolled at the College during the semester in which the certificate requirements are completed or, with approval of the Dean of Student Services, within a calendar year of the last semester of attendance, receive the certificate by transferring from a regionally accredited institution no more than the last six semester hours required for completion of the program of study with a minimum grade of “C” in each course transferred.
6. Fulfill all financial obligations to the College.

## Certificate - Applied Technology: Air Conditioning and Refrigeration (HVAC) option

This program emphasizes the fundamental principles for air conditioning, and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system.

	<b>credit hours</b>
<b>Required general education courses</b> .....	<b>12</b>
ENG 101 English Composition I .....	3
MTH 100 Intermediate College Algebra or higher level MTH .....	3
SPH 106 Fundamentals of Oral Communication .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
CIS 146 Microcomputer Applications .....	3
<b>Required Air Conditioning and Refrigeration courses</b> .....	<b>43</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design .....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes .....	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts .....	3
ACR 111 Principles of Refrigeration .....	3
ACR 112 HVACR Service Procedures .....	3
ACR 113 Refrigeration Piping Practices .....	3
ACR 119 Fundamentals of Gas Heating Systems .....	3
ACR120 Fundamentals of Electric Heating Systems .....	3
ACR121 Principles of Electricity for HVACR. ....	3
ACR 148 Heat Pump Systems .....	3
ACR 183 Special Topics in Air Conditioning and Refrigeration .....	1
<b>Additional certificate requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
<b>Total</b> .....	<b>58</b>

## Short Certificate - Applied Technology: Air Conditioning and Refrigeration (HVAC) option

This program emphasizes the fundamental principles for air conditioning, heating and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components, common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system.

	<b>credit hours</b>
<b>Required courses.....</b>	<b>22</b>
ACR 111 Principles of Refrigeration .....	3
ACR 112 HVACR Service Procedures .....	3
ACR 113 Refrigeration Piping Practices .....	3
ACR 119 Fundamentals of Gas Heating Systems .....	3
ACR120 Fundamentals of Electric Heating Systems.....	3
ACR121 Principles of Electricity for HVACR .....	3
ACR 148 Heat Pump Systems .....	3
ACR 183 Special Topics in Air Conditioning and Refrigeration.....	1
<b>Total .....</b>	<b>22</b>

## Certificate - Applied Technology: Automotive Manufacturing option

This program prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. This program includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

	<b>credit hours</b>
<b>Required general education courses .....</b>	<b>12</b>
ENG 101 English Composition I .....	3
MTH 100 Intermediate College Algebra or higher level MTH.....	3
SPH 106 Fundamentals of Oral Communication .....	3
or SPH 107 Fundamentals of Public Speaking .....	3
CIS 146 Microcomputer Applications .....	3
<b>Required Automotive Manufacturing courses. ....</b>	<b>45</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design .....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes .....	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts .....	3
INT 101 DC Fundamentals .....	3
INT 103 AC Fundamentals .....	3
INT 117 Industrial Mechanics .....	3
INT 184 Intro to Programmable Logic Controllers .....	3
INT 284 Advanced Programmable Logic Controllers.....	3
INT 288 Applied Programmable Logic Controllers .....	3



INT 253	Industrial Robotics .....	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques .....	3
<b>Additional certificate requirements .....</b>		<b>3</b>
*ORI 101	Orientation to College .....	1
WKO 101	Workplace Skills Development .....	2
<b>Total .....</b>		<b>60</b>

## Short Certificate - Applied Technology: Automotive Manufacturing option

This program prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. This program includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

		<b>credit hours</b>
<b>Required courses .....</b>		<b>24</b>
INT 101	DC Fundamentals .....	3
INT 103	AC Fundamentals .....	3
INT 117	Industrial Mechanics .....	3
INT 184	Intro to Programmable Logic Controllers .....	3
INT 284	Advanced Programmable Logic Controllers .....	3
INT 288	Applied Programmable Logic Controllers .....	3
INT 253	Industrial Robotics .....	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques .....	3
<b>Total .....</b>		<b>24</b>

## Certificate - Applied Technology: Industrial Maintenance option

This program prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

		<b>credit hours</b>
<b>Required general education courses .....</b>		<b>12</b>
ENG 101	English Composition I .....	3
MTH 100	Intermediate College Algebra or higher level MTH .....	3
SPH 106	Fundamentals of Oral Communication .....	3
or SPH 107	Fundamentals of Public Speaking .....	3
CIS 146	Microcomputer Applications .....	3
<b>Required Industrial Maintenance courses .....</b>		<b>45</b>
ADM 100	Industrial Safety .....	3
ADM101	Precision Measurement .....	3
ADM 102	Computer Aided Design .....	3
ADM 103	Intro to Computer Integrated Manufacturing/Material Processes .....	3
ADM 104	Introduction to Thermal/Electrical Principles .....	3
ADM 105	Fluid Systems .....	3
ADM 106	Quality Control Concepts .....	3

INT 101	DC Fundamentals .....	3
INT 103	AC Fundamentals .....	3
INT 113	Motor Controls .....	3
INT 117	Industrial Mechanics .....	3
INT 253	Industrial Robotics.....	3
INT 184	Intro to Programmable Logic Controllers .....	3
INT 284	Advanced Programmable Logic Controllers.....	3
INT 288	Applied Programmable Logic Controllers .....	3
<b>Additional certificate requirements .....</b>		<b>3</b>
ORI 101	Orientation to College .....	1
WKO 101	Workplace Skills Development .....	2
<b>Total .....</b>		<b>60</b>

## Short Certificate - Applied Technology: Industrial Maintenance option

This program prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

		<b>credit hours</b>
<b>Required courses.....</b>		<b>27</b>
INT 101	DC Fundamentals .....	3
INT 103	AC Fundamentals.....	3
INT 113	Motor Controls .....	3
INT 117	Industrial Mechanics .....	3
INT 253	Industrial Robotics.....	3
INT 184	Intro to Programmable Logic Controllers.....	3
INT 284	Advanced Programmable Logic Controllers .....	3
INT 288	Applied Programmable Logic Controllers .....	3
INT 134	Prin. of Industrial Maintenance Welding and Metal Cutting Techniques .....	3
<b>Total .....</b>		<b>27</b>

## Certificate - Applied Technology: Sustainable Construction/Renewable Energy Option

This program emphasizes the tools and materials used in the construction industry. Topics include safety, hand tools, hand held power tools, building codes, construction measurements, and construction materials. This course also integrates renewable energy topics such as solar /thermal principals, sustainable building materials, and photovoltaic principals and design. Upon completion, students should be able to work safely within the industry and operate various hand tools and power equipment. Students will also understand how sustainable construction affects the environment and future economy.

		<b>credit hours</b>
<b>Required general education courses .....</b>		<b>12</b>
ENG 101	English Composition I .....	3
MTH 100	Intermediate College Algebra or higher level MTH.....	3
SPH 106	Fundamentals of Oral Communication .....	3
or SPH 107	Fundamentals of Public Speaking .....	3
CIS 146	Microcomputer Applications .....	3

<b>Required Sustainable Construction/Renewable Energy courses .....</b>	<b>43</b>
ADM 100 Industrial Safety .....	3
ADM101 Precision Measurement .....	3
ADM 102 Computer Aided Design .....	3
ADM 103 Intro to Computer Integrated Manufacturing/Material Processes .....	3
ADM 104 Introduction to Thermal/Electrical Principles .....	3
ADM 105 Fluid Systems .....	3
ADM 106 Quality Control Concepts .....	3
REN 105 Renewable Technology Awareness .....	1
REN 115 Photovoltaic Principles and Design .....	3
REN 205 Solar Thermal Principles .....	3
REN 215 Photovoltaic Systems and Servicing Procedures .....	3
BUC 112 Construction Measurements and Calculations .....	3
BUC 133 Standard Building Codes .....	3
BUC 210 Current Topics in Building Construction .....	3
BUC 111 Basic Construction Layout .....	3
<b>Additional certificate requirements.....</b>	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skills Development .....	2
<b>Total .....</b>	<b>58</b>

## Short Certificate- Applied Technology: Sustainable Construction/Renewable Energy option

This program emphasizes the tools and materials used in the construction industry. Topics include safety, hand tools, hand held power tools, building codes, construction measurements, and construction materials. This course also integrates renewable energy topics such as solar / thermal principals, sustainable building materials, and photovoltaic principals and design. Upon completion, students should be able to work safely within the industry and operate various hand tools and power equipment. Students will also understand how sustainable construction affects the environment and future economy.

	<b>credit hours</b>
<b>Required courses .....</b>	<b>22</b>
REN 105 Renewable Technology Awareness .....	1
REN 115 Photovoltaic Principles and Design .....	3
REN 205 Solar Thermal Principles .....	3
REN 215 Photovoltaic Systems and Servicing Procedures .....	3
BUC 112 Construction Measurements and Calculations .....	3
BUC 133 Standard Building Codes .....	3
BUC 210 Current Topics in Building Construction .....	3
BUC 111 Basic Construction Layout .....	3
<b>Total .....</b>	<b>22</b>

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## Short Certificate - Business and Office Technology: Administrative Technology option

The Administrative Technology certificate program is designed for persons seeking immediate employment and for professional development for persons who are already employed in office and business positions. Credits earned may be applied toward the Associate in Applied Science degree in Business Technology.

	<b>credit hours</b>
<b>Required courses</b> .....	<b>18</b>
OAD 101 Beginning Keyboarding .....	3
OAD 103 Intermediate Keyboarding .....	3
OAD 125 Word Processing .....	3
OAD 130 Electronic Calculations .....	3
ENG 101 English Composition I .....	3
CIS 146 Microcomputer Applications .....	3
<b>Electives (3 hours in CIS and 3 hours in BUS, MST, or ECO)</b> .....	<b>6</b>
CIS Elective .....	3
BUS, MST, or ECO Elective .....	3
<b>Additional certificate requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development I .....	2
<b>Total</b> .....	<b>27</b>

## Short Certificate - Child Care and Development

The Child Care and Development program provides training in child care and development for day care teachers, aides, and others who wish to pursue careers as day care or nursery school teachers, HeadStart professionals, etc. This program consists of courses offered on demand during the evening hours to accommodate the needs of individuals presently employed. This program allows child care workers to meet the minimum requirements of Alabama Head Start and Child Care Standards. The state of Georgia requires additional training in CPR, First Aid, and in identifying, reporting and meeting the needs of abused, neglected or deprived children.

### *Courses needed for Child Development CDA Credential*

Students interested in meeting the educational component of the nationally recognized CDA credential in a formal education setting should take at least three Child Care courses (3 semester hours each). The Council for Professional Recognition headquartered in Washington, D.C., operates the Child Development (CDA) national credentialing program. As one criterion, students must have completed 120 hours (clock hours) of approved training within the last five years.

	<b>credit hours</b>
<b>Required courses</b> .....	<b>24</b>
CHD 100 Introduction to Early Care and Education of Children .....	3
CHD 201 Child Growth and Development Principles .....	3
CHD 203 Children's Literature .....	3
CHD 204 Methods and Materials for Teaching Children .....	3
CHD 205 Program Planning for Educating Young Children .....	3
ART 286 Art for Teachers .....	3

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

ENG 101	English Composition I	3
MTH 100	Intermediate College Algebra	3
<b>Additional certificate requirements</b>		<b>3</b>
*ORI 101	Orientation to College	1
WKO 101	Workplace Skill Development I	2
<b>Total</b>		<b>27</b>

### Short Certificate - Child Care and Development: Administrator

		<b>credit hours</b>
<b>Required courses</b>		<b>24</b>
CHD 201	Child Growth and Development Principles	3
CHD 204	Methods and Materials for Teaching Children	3
CHD 206	Children's Health and Safety	3
CHD 208	Administration of Child Development Program	3
CHD 214	Families and Communities	3
ENG 101	English Composition I	3
MST 111	Elements of Supervision	3
MTH 100	Intermediate College Algebra	3
<b>Additional certificate requirements</b>		<b>3</b>
*ORI 101	Orientation to College	1
WKO 101	Workplace Skill Development I	2
<b>Total</b>		<b>27</b>

### Short Certificate - Child Care and Development: Paraprofessional/Teacher Aide

		<b>credit hours</b>
<b>Required courses</b>		<b>24</b>
ENG 101	English Composition I	3
MTH 100	Intermediate College Algebra	3
SPA 101	Introductory Spanish	3
CHD 100	Introduction to Early Care and Education of Children	3
CHD 201	Child Growth and Development Principles	3
CHD 202	Children's Creative Experiences	3
CHD 203	Children's Literature	3
CIS 146	Microcomputer Applications	3
<b>Additional certificate requirements</b>		<b>3</b>
*ORI 101	Orientation to College	1
WKO 101	Workplace Skill Development	2
<b>Total</b>		<b>27</b>

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

## Short Certificate - Child Care and Development: Advanced Paraprofessional/Teacher Aide

	credit hours
<b>Required courses</b> .....	<b>21</b>
ENG 102 English Composition II .....	3
MTH 231 Math for the Elementary Teacher I .....	3
MTH 232 Math for the Elementary Teacher II .....	3
PHS 111 Physical Science I .....	3
CHD 204 Methods and Materials for Teaching Children .....	3
CHD 210 Educating Exceptional Young Children .....	3
CHD 217 Math and Science for Young Children .....	3
<b>Additional certificate requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>24</b>

## Short Certificate - Computer Information Systems: Networking Technology option

The CISCO Networking Technology certificate program is designed for persons seeking employment, for professional development, or for persons seeking the IC3, A+ and CISCO CCENT professional certifications. Credits earned may be applied toward the Associate in Applied Science degree in Computer Information Systems with the CISCO Networking option.

	credit hours
<b>Required courses</b> .....	<b>15</b>
CIS 149 Introduction to Computers .....	3
CIS 268 Software Support .....	3
CIS 269 Hardware Support .....	3
CIS 270 CISCO 1 .....	3
CIS 271 CISCO 2 .....	3
<b>Total</b> .....	<b>15</b>

## Certificate - Computer Information Systems: Information Technology option

The Information Technology certificate provides the necessary competencies for individuals to be employed as computer programmers in the information technology industry.

	credit hours
<b>Required general education courses</b> .....	<b>12</b>
ENG 101 English Composition I .....	3
MTH 100 Intermediate College Algebra or higher level MTH .....	3
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Human Communication (Recommended) .....	3
CIS 146 Microcomputer Applications .....	3
<b>Required courses</b> .....	<b>22</b>
CIS 130 Introduction to Information Systems .....	3
CIS 149 Introduction to Computers .....	3

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

CIS 150	Introduction to Computer Logic and Programming .....	3
CIS 185	Computer Ethics .....	3
CIS 191	Introduction to Computer Programming Concepts .....	3
CIS 193	Introduction to Computer Programming Lab .....	1
CIS 268	Software Support .....	3
CIS 269	Hardware Support .....	3
<i>Electives (must be in CIS or VCM Courses).</i> .....		<b>6</b>
<i>Additional certificate requirements</i> .....		<b>3</b>
*ORI 101	Orientation to College .....	1
WKO 101	Workplace Skill Development .....	2
<b>Total</b> .....		<b>43</b>

## Certificate - Criminal Justice

This program is designed for students with interest in criminal justice and law enforcement professions. Additionally, this program is designed for current law enforcement officers who wish to pursue academic credits, as well as for those with no previous academic background.

	<b>credit hours</b>
<i>Required general education courses</i> .....	<b>12</b>
ENG 101 English Composition I .....	3
MTH 100 Intermediate College Algebra or higher level MTH .....	3
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Human Communication (Recommended).....	3
CIS 146 Microcomputer Applications .....	3
<i>Required Criminal Justice courses</i> .....	<b>8</b>
CRJ 100 Introduction to Criminal Justice .....	3
CRJ 110 Introduction to Law Enforcement .....	3
EMS 100 Cardiopulmonary Resuscitation I .....	1
EMS 104 First Aid for Students of Health-Related Professions .....	1
<i>Electives in Criminal Justice</i> .....	<b>18</b>
<i>Additional certificate requirements</i> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>41</b>

## Short Certificate - Emergency Medical Technician - Basic

Chattahoochee Valley Community College offers emergency medical training for the EMT program. The EMT program consists of one semester of classes and clinical training. The student registers for eleven (11) semester hours (2 hours of CPR, if needed) of instruction and clinical rotation. Upon successful completion of the EMT program, the student is eligible to take the National Registry Exam. After passing the National Registry Exam, the student is eligible for State of Alabama licensure as an EMT Technician. Students enrolled in the EMT program are responsible for additional costs and fees related to the program and not included in tuition. Such costs can include, but are not limited to: physicals, criminal background checks, random drug screening, clinical uniforms, and required clinical supplies.

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

	credit hours
<b>Required EMT courses</b> .....	<b>11</b>
EMS 100 Cardiopulmonary Resuscitation I .....	1
EMS 118 Emergency Medical Technician .....	9
EMS 119 Emergency Medical Technician Clinical .....	1
<hr/>	
<b>Total</b> .....	<b>11</b>

### Short Certificate – Advanced Emergency Medical Technician

This program is designed to offer emergency medical training for the Advanced EMT program. The Advanced EMT program consists of one semester of classes and clinical training. The student registers for ten (10) semester hours of instruction and clinical rotation. If the student does not hold a current CPR card, they must complete CPR courses. The AEMT course and training are designed to provide additional training, knowledge, and skills in specific areas of ALS. Skills above the EMT-Basic level include EV therapy and the administration of certain medications. Upon successful completion of the Advanced EMT program, the student is eligible to take the National Registry Exam. After passing the National Registry Exam, the student is eligible for State of Alabama licensure as an Advanced Emergency Medical Technician. Students enrolled in the Advanced EMT program are responsible for additional costs and fees related to the program and not included in tuition. Such costs can include, but are not limited to: physicals, criminal background checks, random drug screening, clinical uniforms, and required clinical supplies.

	credit hours
<b>Required AEMT courses</b> .....	<b>10</b>
EMS 155 Advanced Emergency Medical Technician .....	8
EMS 156 Advanced Emergency Medical Technician Clinical.....	2
<hr/>	
<b>Total</b> .....	<b>10</b>

### Short Certificate - Fire Science

This program is designed for individuals employed or seeking employment as fire fighters. The program is also designed to be an intermediate recognition step for individuals working toward the Fire Science associate degree. All coursework in the Certificate program is applicable toward the Associate in Applied Science degree.

	credit hours
<b>Required Fire Science courses</b> .....	<b>12</b>
FSC 101 Introduction to Fire Science .....	3
FSC 110 Building Construction Principles .....	3
FSC 130 Introduction to Fire Suppression .....	3
FSC 299 Legal Aspects of Fire Science .....	3
<b>Electives in Fire Science</b> .....	<b>12</b>
<b>Additional certificate requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<hr/>	
<b>Total</b> .....	<b>27</b>

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.



## Certificate - Homeland Security

The Homeland Security certificate program provides the knowledge and skills necessary for security professionals, including business, industry, and corporate managers who are responsible for risk assessment, infrastructure management, physical and information security, and human capital management. Students will benefit from a dynamic real-world approach to actual and potential scenarios. From terrorism to emergency management, these programs will provide students with current information and transferable skills that are critical to meeting employer needs in both the homeland security and public safety sectors.

Students will obtain certification in Incident Command System (ICS) and National Incident Management System (NIMS). The program is also designed to provide an intermediate recognition for individuals working toward the Homeland Security associate degree. All coursework in the Certificate program is applicable to the Associate in Applied Science degree.

**credit hours**

<b>Required general education courses</b> .....	<b>13</b>
ENG 101 English Composition I .....	3
SPH 107 Fundamentals of Public Speaking .....	3
or SPH 106 Fundamentals of Oral Communication .....	3
MTH 100 Intermediate Algebra or higher level MTH .....	3
CIS 146 Microcomputer Applications .....	3
<b>Required courses</b> .....	<b>13</b>
HLS 100 Introduction to Homeland Security and Public Safety .....	3
HLS 190 Critical Infrastructure Assessment and Protection .....	3
EMS 100 Cardiopulmonary Resuscitation I .....	1
HLS 215 Mass Casualty Triage Management .....	3
HLS 241 Incident Management Team Operations .....	3
<b>Homeland Security Electives</b> .....	<b>21</b>
<b>Additional Certificate Requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>49</b>

## Short Certificate - Homeland Security

The Homeland Security certificate program provides the knowledge and skills necessary for security professionals, including business, industry, and corporate managers who are responsible for risk assessment, infrastructure management, physical and information security, and human capital management. Students will benefit from a dynamic real-world approach to actual and potential scenarios. From terrorism to emergency management, these programs will provide students with current information and transferable skills that are critical to meeting employer needs in both the homeland security and public safety sectors.

Students will obtain certification in Incident Command System (ICS) and National Incident Management System (NIMS). The program is also designed to provide an intermediate recognition for individuals working toward the Homeland Security associate degree. All coursework in the Certificate program is applicable to the Associate in Applied Science degree.

**credit hours**

<b>Required courses</b> .....	<b>13</b>
HLS 100 Introduction to Homeland Security and Public Safety .....	3
HLS 190 Critical Infrastructure Assessment and Protection .....	3

EMS 100	Cardiopulmonary Resuscitation I .....	1
HLS 215	Mass Casualty Triage Management .....	3
HLS 241	Incident Management Team Operations .....	3
<b>Homeland Security Electives .....</b>		<b>12</b>
<b>Additional certificate requirements .....</b>		<b>3</b>
*ORI 101	Orientation to College .....	1
WKO 101	Workplace Skill Development .....	2
<b>Total .....</b>		<b>28</b>

## Short Certificate - Medical Assisting

The Medical Assisting Certificate Program requires the student to complete 20 semester hours in medical assisting courses. This program will prepare students for careers in the health care field by offering courses in both the clinical and administrative functions of a physician's office.

		<b>credit hours</b>
<b>Required courses .....</b>		<b>20</b>
MAT 101	Medical Terminology .....	3
or HPS 105	Medical Terminology .....	3
MAT 102	Medical Assisting Theory I .....	3
MAT 103	Medical Assisting Theory II .....	3
MAT 111	Clinical Procedures I .....	3
MAT 120	Medical Admin. Procedures I .....	3
MAT 121	Medical Admin. Procedures II .....	3
WKO 101	Workplace Skill Development I .....	2
<b>Total .....</b>		<b>20</b>

## Short Certificate - Medical Assisting: Phlebotomy

Prerequisites for required courses in the Phlebotomy short certificate must be met before students may register for MAT 239 Phlebotomy Preceptorship. (See course description on page 186.)

The College offers a 10-hour short-term certificate in phlebotomy, which prepares the student for work in acute care settings such as major hospital laboratories, minor emergency centers, and free-standing laboratories, working under the supervision of medical laboratory technologists or laboratory managers. The courses will provide both classroom and clinical experiences.

		<b>credit hours</b>
<b>Required courses .....</b>		<b>10</b>
MAT 125	Laboratory Procedures I .....	3
MAT 215	Laboratory Procedures II .....	3
MAT 239	Phlebotomy Preceptorship .....	3
EMS 100	Cardiopulmonary Resuscitation I .....	1
<b>Total .....</b>		<b>10</b>

## Certificate - Licensed Practical Nursing (LPN)

The Licensed Practical Nursing (LPN) Program enables the student to complete a one-year curriculum leading to a certificate in Licensed Practical Nursing. This qualifies the graduate to apply to write the National Council Licensure Examination: NCLEX-PN. It is important for

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.

nursing students to note, however, that the review of candidates for initial and continuing licensure in Alabama will include questions concerning such things as whether they have ever been arrested or convicted of a criminal offense and whether they have ever been arrested for or convicted of driving under the influence of drugs/alcohol. Application to write the examination may be denied by the State Board on the basis of this review. Therefore, successful completion of the LPN Program does not guarantee eligibility to write the NCLEX-PN. Other states have similar stipulations regarding licensure. When the examination is passed, the student then becomes a Licensed Practical Nurse (LPN).

#### credit hours

<b>Area I:</b>	<b>Written and Oral Communication</b> .....	<b>3</b>
	ENG 101 English Composition .....	3
<b>Area III:</b>	<b>Natural Science, Mathematics, and Computer Science</b> .....	<b>11</b>
	BIO 201 Human Anatomy and Physiology I .....	4
	BIO 202 Human Anatomy and Physiology II .....	4
	MTH 100 Intermediate College Algebra or higher .....	3
<b>Area V:</b>	<b>Career and Technical Courses</b> .....	<b>35</b>
	<b>Required Field of Concentration Courses</b>	
	NUR 102 Fundamentals of Nursing .....	6
	NUR 103 Health Assessment .....	1
	NUR 104 Introduction to Pharmacology .....	1
	NUR 105 Adult Nursing .....	8
	NUR 106 Maternal and Child Nursing .....	5
	NUR 107 Adult/Child Nursing .....	8
	NUR 108 Psychosocial Nursing .....	3
	NUR 109 Role Transition for the Licensed Practical Nurse .....	3
<b>Total</b> .....		<b>49</b>

#### Suggested Course Sequence

First Term	Second Term	Third Term
MTH 100	ENG 101	NUR 107
BIO 201	BIO 202	NUR 108
NUR 102	NUR 105	NUR 109
NUR 103	NUR 106	
NUR 104		

#### Licensed practical nursing program minimum admission standards

Minimum admission standards for the Licensed Practical Nursing Program include:

1. Unconditional admission to the College.
2. Receipt of completed application for the Licensed Practical Nursing Program by the published deadline.
3. A minimum of 2.50 GPA from the last 24 hours of college credit if prior college coursework exists.
4. A minimum of 2.50 cumulative high school GPA if no prior college coursework exists (GED acceptable in lieu of high school transcript).
5. Eligibility for:
  - a. English 101 and Math 100 as determined by college policy

- b. BIO 201 during the first term of nursing courses. (As a prerequisite to BIO 201, student must successfully complete BIO 103 or achieve a passing score on the ACS approved placement exam)
- 6. Good standing with the College.
- 7. Meeting the essential functions or technical standards required for nursing.
- 8. Completion of the Test of Essential Academic Skills (TEAS) must have been taken prior to application.
- 9. Official transcripts from every college attended must be submitted to the admissions office prior to the published deadline.
- 10. Unofficial transcripts from every college attended must be submitted with the nursing application prior to the published deadline.

Admission to the Licensed Practical Nursing Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. Meeting minimal requirements does not guarantee acceptance.

***Calculation of points for students meeting minimum admission standards:***

After meeting all minimum requirements, applicants are rank-ordered using a point system based on:

- 1. Your score from the Test of Essential Academic Skills (TEAS).
  - a. The TEAS must have been taken within the past three years for consideration. The applicant will be given points according to percentage score equivalent.
- 2. Points from selected college courses (i.e. ENG 101, MTH 100) or selected high school courses (i.e. Algebra II or higher level math, highest level Biology)
  - a. Points are awarded according to grade earned: A = 30, B = 20, C = 10.
- 3. Students may be awarded up to 10 points as determined by college policy and procedures.
  - a. Students who have completed ENG 101 and MTH 100 (or higher) at CVCC will earn five (5) additional points.
  - b. Students who have completed ENG 101, MTH 100 (or higher), BIO 201, and BIO 202 at CVCC will earn an additional ten (10) points.

A total of 220 points are possible.

**Nursing Assistant Program**

The Nursing Assistant Program is one semester in length, requiring the successful completion of NAS 100 - Long Term Care Nursing Assistant, a four-hour classroom and clinical course, which fulfills the requirements of the seventy-five (75) hour Omnibus Budget Reconciliation Act (OBRA) for the training of long-term care nursing assistants. After passing NAS 100, a student is eligible to take the Nurse Aide Certification Exam. Students who demonstrate competency on the exam will be placed on the Alabama Nurse Aide Registry maintained by the Alabama Department of Public Health.

Certified Nursing Assistants (CNAs) provide basic patient care under the direction of licensed nursing staff. Duties may include bathing, grooming, and feeding patients; obtaining and monitoring vital signs; ambulatory assistance; and comfort measures. Nursing assistants care for patients confined to acute care hospitals, nursing homes, rehabilitation centers, mental health centers, and their homes. Because many CNAs are employed in long-term care facilities, and because the population of older Americans is growing, there are many job opportunities available for the Certified Nursing Assistant.

## Short Certificate - Visual Communications: Multimedia Graphic Design option

The Multimedia Certificate program in Visual Communications is designed for persons seeking employment and for professional development for persons already employed. Credits earned may be applied toward the Associate in Applied Science degree in Visual Communications with the Print Media or Multimedia option.

	<b>credit hours</b>
<b>Required courses</b> .....	<b>24</b>
ART 121 Two-Dimensional Composition .....	3
CIS 150 Introduction to Computer Logic and Programming .....	3
or CIS 153 Introduction to Unity Scripting .....	3
CIS 151 Graphics for the World Wide Web .....	3
CIS 207 Introduction to Web Development .....	3
ENG 101 English Composition .....	3
VCM 150 Typography .....	3
VCM 172 Digital Illustration I .....	3
VCM 185 Digital Imaging I .....	3
VCM 254 Graphic Design .....	3
<b>Additional certificate requirements</b> .....	<b>3</b>
*ORI 101 Orientation to College .....	1
WKO 101 Workplace Skill Development .....	2
<b>Total</b> .....	<b>27</b>

## Short Certificate - Visual Communications: Simulation and Modeling option

The Simulation and Modeling short certificate teaches the theory, tools and techniques necessary for creating high-quality graphics. Students will learn the principles of interactive 3D, 3D modeling, GIS, and programming. They are introduced to 2D and 3D editing software and programming tools. Emphasis is placed on acquiring the skills necessary to create scalable virtual characters and environments for use in simulations and games.

	<b>credit hours</b>
<b>Required courses</b> .....	<b>12</b>
CIS 153 Introduction to Unity 3D Scripting .....	3
CIS 223 Three-Dimensional Computer Modeling .....	3
CIS 294 Special Topics: Capstone .....	3
CIS 196 Commercial Software Applications – Photoshop .....	3
or VCM 185 Digital Imaging .....	3
<b>Total</b> .....	<b>12</b>

\* Students may use ORI 105, Orientation and Student Success, to satisfy this requirement. Enrollment in this three credit-hour class will add two semester hours to the student's program total.