Associate of Arts &
Sciences Degrees

Business Administration

General Studies

Specialization: African-American Studies
Specialization: Appalachian Studies
Specialization: Criminal Justice
Specialization: Gender Studies
Specialization: Human Services
Specialization: Information Technology
Specialization: Recreation, Parks, & Leisure Studies
Specialization: Visual Arts
Specialization: Teacher Education Preparation

Science

Associate of Arts and Sciences
degrees provide the first two years of instruction in major fields that prepare students for transfer to colleges and universities to complete baccalaureate degrees.

Associate of Applied Science
degrees provide two years of instruction to develop knowledge and skills leading to employment or career advancement in specialized fields. These degrees are not intended as transfer programs.

Graduation Requirements
In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two-week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

Associate of Applied Science Degrees

Administration of Justice

Business Technology

Major: Accounting
Major: Administrative Support Technology
Specialization: Medical Office
Major: Management
Specialization: E-Commerce
Specialization: Entrepreneurship/Small Business
Specialization: International Business

Education Assisting

Emergency Medical Services
Paramedic

General Engineering Technologies

Health Technology
Nursing

Industrial Electronics Technology

Information Systems Technology
Specialization: Accounting Information Systems
Specialization: Game Design and Development
Specialization: Internet Services

Legal Assisting

Technical Studies
Specialization: Agribusiness
Specialization: Motorsports Technology
Business Administration

**Award:** Associate of Arts & Sciences  
**Length:** 4 Semesters

**Purpose:** The curriculum is designed for the student who plans to complete a baccalaureate degree program. The transfer institution’s catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

**Other Information:** Students planning ahead for this curriculum will find it most helpful to have completed college preparatory curriculum courses in high school in areas such as English, mathematics (two units of algebra and one of plane geometry), laboratory science, social studies, and foreign language.

**Transfer Information:** The student should become familiar with the requirements of the major department in the college or university to which transfer is contemplated and also consult the assigned academic advisor before planning a program of study. In order to prepare for junior class standing at a four-year college or university, the student must complete a program that is comparable in length and course content to the first two years of the program at the four-year institution.

Counselors have transfer guides from many institutions to assist in selection of courses. Every institution has unique requirements, so the student should investigate the programs of each institution under consideration for transfer.

**Students should be particularly careful to select electives that correspond to requirements of the transfer institution.**

**Curriculum Requirements:** Students must successfully complete all of the requirements listed below to be awarded this degree.

**Program Outcomes:** A student will be able to:
- Demonstrate effective verbal and written communication skills.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Apply the principles of financial accounting and managerial accounting.
- Apply the principles of macroeconomics and microeconomics.

**General Education Requirements (23 Credits):**
- **CST 110** Introduction to Communication (3)
- **ENG 111-112** College Composition I-II (6)
- **HIS 121-122** United States History I-II (6)
  [or HIS 101-102 History of Western Civilization I-II (6)]
- **MTH 163** Precalculus I (3)
- **MTH 271** Applied Calculus I (3)
- **Wellness (2)—** Health, P.E. or recreation courses which promote physical and emotional well being

**Program Requirements (37 Credits):**
- **ACC 211-212** Principles of Accounting I-II (6)
- **ECO 201** Principles of Macroeconomics (3)
- **ECO 202** Principles of Microeconomics (3)
- **ITE 119** Information Literacy (3)
- **MTH 241** Statistics I (3)
- **SDV 108** College Survival Skills (1)
- **SDV 199** Supervised Study in Transfer Programs (1)

**Transfer Laboratory Science (8 Credits)**  
Must complete a two semester sequence  
Courses may be selected from the following (other combinations approved by Division Dean):
- **BIO 101-102** General Biology I-II (4)(4)
- **BIO 231-232** Human Anatomy and Physiology I-II (4)(4)
- **CHM 111-112** College Chemistry I-II (4)(4)
- **GOL 105-106** Physical Geology – Historical Geology (4)(4)
- **PHY 201-202** General College Physics I-II (4)(4)
- **PHY 241-242** University Physics I-II (4)(4)

**Social Science Elective (3 Credits):**
Courses may be selected from the following:
- **GEO 210** People & the Land: Introduction to Cultural Geography (3)
- **PLS 211** U.S. Government I (3)
- **PLS 212** U.S. Government II (3)
- **PSY 200** Principles of Psychology (3)
- **SOC 200** Principles of Sociology (3)
- **SOC 268** Social Problems (3)

**Fine Arts Electives (3 Credits):**
Selected from among transfer courses in art, literature, foreign language, music, philosophy, religion, or communication studies and theatre.

**College Transfer Electives (3 credits):**
Selected from transfer courses in business, information technology, science, mathematics, social sciences, the humanities, fine arts, and foreign language. MTH 242 (Statistics II) may be required at the transfer institution; check with the college or university for specific requirements. Other business courses which may be required at the transfer institution include BUS 100 (Intro. to Business) and/or BUS 241 (Business Law I); check with the college or university for specific requirements.

**Minimum required for degree: 60 Credits**
Sample Schedule

Business Administration

FIRST YEAR

Fall Semester
ENG 111  College Composition I        3
HIS 121  United States History I        3
(or HIS 101)
MTH 163  Precalculus I              3
SDV 108  College Survival Skills         1
Science with Laboratory Elective         4

14

Spring Semester
ENG 112  College Composition II        3
HIS 122  United States History II        3
(or HIS 102)
ITE 119  Information Literacy         3
MTH 271  Applied Calculus I          3
Science with Laboratory Elective         4

16

SECOND YEAR

Fall Semester
ACC 211  Principles of Accounting I       3
MTH 241  Statistics I            3
ECO 201  Principles of Macroeconomics      3
College Transfer Elective            3
Wellness Elective              2
Fine Arts Elective              3

17

Spring Semester
ACC 212  Principles of Accounting II       3
ECO 202  Principles of Microeconomics      3
CST 110  Introduction to Communication     3
SDV 199  Supervised Study in Transfer Programs    1
Social Science Elective              3

13

Total Semester Hours:  60
General Studies

Award: Associate of Arts and Sciences
Length: 4 Semesters
Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. Students often select the general studies program if they intend to transfer to a four-year institution but are uncertain what their major will be. The transfer institution’s catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. There are five different options for the student seeking a General Studies degree. In addition to the basic program of general studies, students may specialize in the visual arts, human services, teacher education preparation, or parks, recreation, and leisure studies. Contact the division dean or an advisor for additional information.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Other Information: Students planning ahead for this curriculum will find it most helpful to have completed college preparatory curriculum courses in high school in areas such as English, mathematics (two units of algebra and one of plane geometry), laboratory science, social studies, and foreign language.

Transfer Information: The student should become familiar with the requirements of the major department in the college or university to which transfer is contemplated and also consult the assigned academic advisor before planning a program of study. In order to prepare for junior class standing at a four-year college or university, the student must complete a program that is comparable in length and course content to the first two years of the program at the four-year institution.

Counselors have transfer guides from many institutions to assist in selection of courses. Every institution has unique requirements, so the student should investigate the programs of each institution under consideration for transfer.

Students should be particularly careful to select electives that correspond to requirements of the transfer institution.

Curriculum Requirements: Students must successfully complete all of the requirements as listed will be awarded this degree.

Program Outcomes: A student will be able to:

- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Demonstrate an appreciation for the arts.
- Describe the importance of a historical and cultural perspective in the global community.
- Demonstrate competency in at least two areas within the field of theatre. (Performing Arts Specialization)
- Demonstrate competency in at least two areas within the field of visual arts. (Visual Arts Specialization)

General Education Requirements (23 Credits):
- ENG 111-112 College Composition I-II (6)
- CST 110 Introduction to Communication (3)
- HIS 121-122 United States History I-II (6)
- [or HIS 101-102 History of Western Civilization I-II (6)]

Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):
- [a] MTH 163 Precalculus I (3)
- and MTH 271 Applied Calculus I (3)
- [b] MTH 151 Mathematics for the Liberal Arts I (3)
- and MTH 152 Mathematics for the Liberal Arts II (3)
- [c] MTH 163 Precalculus I (3)
- and MTH 164 Precalculus II (3)
- [d] MTH 175 Calculus of One Variable I (3)
- and MTH 176 Calculus of One Variable II (3)
- and MTH 177 Introductory Linear Algebra (2)
- and MTH 178 Topics in Analytic Geometry (2)
- [e] MTH 163 Precalculus I (3)
- and MTH 241 Statistics I (3)
- Wellness (2)— Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (37 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
- ITE 119 Information Literacy (3)
- SDV 108 College Survival Skills (1)
- SDV 199 Supervised Study in Transfer Programs (1)

English (Literature Elective)(3 Credits) selected from:
- ENG 241-242 Survey of American Literature I-II (3)(3)
- ENG 243-244 Survey of English Literature I-II (3)(3)
- ENG 251-252 Survey of World Literature I-II (3)(3)
- ENG 253-254 Survey of African-American Literature I-II (3)(3)

Transfer Laboratory Science (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following (other combinations approved by Division Dean):
- BIO 101-102 General Biology I-II (4)(4)
- BIO 231-232 Human Anatomy and Physiology I-II (4)(4)
- CHM 111-112 College Chemistry I-II (4)(4)
- GOL 105-106 Physical Geology – Historical Geology (4)(4)
- PHY 201-202 General College Physics I-II (4)(4)
- PHY 241-242 University Physics I-II (4)(4)
Social Science (6 Credits):
Courses may be selected from the following:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & the Land: Intro. to Cultural Geography (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
SOC 200 Principles of Sociology (3)
SOC 268 Social Problems (3)

Specified Fine Arts Course (3 credits) selected from:
ART 101 Appreciation and History of Art I (3)
[or ART 201 History of Art I (3)]
ART 102 Appreciation and History of Art II (3)
[or ART 202 History of Art II (3)]
MUS 121 Music Appreciation I (3)
CST 130 Introduction to the Theatre (3)
[or CST 231 History of the Theatre I (3)]

Fine Art Elective (3 credits):
Selected from ART 101 or 201, ART 102 or 202, ENG 241-242, ENG 243-244, ENG 251-252, ENG 253-254, CST 130, CST 231, MUS 121, PHI 101, PHI 220, REL 200, REL 210, REL 231

College Transfer Electives (9 credits):
Selected from transfer courses in business, information technology, science, mathematics, social sciences, the humanities, fine arts, physical education, and foreign language.

Minimum required for degree:  60 Credits

Sample Schedule
General Studies
Without Specialization

FIRST YEAR
Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
[or HIS 101]
MTH 163 Precalculus I 3
[or other approved math requirement ]
SDV 108 College Survival Skills 1
Science with Laboratory 4 14

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
[or HIS 102]
MTH 271 Applied Calculus I 3
[or other approved math requirement ]
ITE 119 Information Literacy 3
Science with Laboratory 4 16

SECOND YEAR
Fall Semester
CST 110 Introduction to Communication 3
ENG Lit. Literature Elective 3
Wellness 2
Social Science 3
College Transfer Elective 3
Fine Arts Elective 3 17

Spring Semester
Social Science 3
SDV 199 Supervised Study in Transfer Programs 1
College Transfer Electives 6
Specified Fine Arts 3 13

Total Semester Hours: 60
General Studies
African American Studies Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (23 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]
ITE 119 Information Literacy (3)
MTH 151 Mathematics for Liberal Arts I (3)
Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (37 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Laboratory Science Elective (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following (other combinations approved by Division Dean):
BIO 101-102 General Biology I-II (4)(4)
BIO 231-232 Human Anatomy and Physiology I-II (4)(4)
CHM 111-112 College Chemistry I-II (4)(4)
GOL 105-106 Physical Geology – Historical Geology (4)(4)
PHY 201-202 General College Physics I-II (4)(4)
PHY 241-242 University Physics I-II (4)(4)

Social Science Elective (6 Credits): Select from:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & tLnd: Intro. To Cultural Geography (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
PSY 230 Developmental Psychology (3)
SOC 200 Principles to Sociology (3)

Humanities Elective (6 credits): Select from:
ART 101 Appreciation and History of Art I (3)
[or ART 201 History of Art I (3)]
ART 102 Appreciation and History of Art II (3)
[or ART 202 History of Art II (3)]
CST 130 Introduction to the Theatre (3)
[or CST 231 History of the Theatre I (3)]
ENG 241-242 Survey of American Literature I-II (3)(3)
ENG 243-244 Survey of English Literature I-II (3)(3)
ENG 251-252 Survey of World Literature I-II (3)(3)
FRE 101-102 Beginning French I-II (4)(4)
MUS 121 Music Appreciation I (3)
PHI 101 Introduction to Philosophy I (3)
PHI 220 Ethics (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World I (3)
SPA 101-102 Beginning Spanish I-II (4)(4)

African American Studies Electives (9 credits):
Select from the following:
ENG 253 Survey of African-American Literature I (3)
ENG 254 Survey of African-American Literature II (3)
HIS 141 African-American History I (3)
HIS 142 African-American History II (3)
HUM 220 Introduction to African-American Studies (3)
PSY 219 Cross-Cultural Psychology (3)

SOC 295 Crime in the African-American Community (3)
SOC 266 Race and Ethnicity (3)
SOC 252 Sociology Through Visual Media (3)

Transfer Electives (6 credits)

Minimum required for degree: 60 Credits

Sample Schedule
African American Studies

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
[or HIS 101]
ITE 119 Information Literacy 3
SDV 108 College Survival Skills 1
Science with Laboratory 4
14

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
[or HIS 102]
African American Studies Elective 3
Science with Laboratory 4
Transfer Elective 3
16

SECOND YEAR

Fall Semester
CST 110 Introduction to Communication 3
MTH 151 Math for Liberal Arts I 3
[or other approved math requirement]
African American Studies Elective 3
Humanities Elective 3
Social Science Elective 3
Wellness 2
17

Spring Semester
SDV 199 Supervised Study in Transfer Programs 1
African American Studies Elective 3
Humanities Elective 3
Social Science Elective 3
Transfer Elective 3
13

Total Semester Hours: 60
General Studies
Appalachian Studies Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (23 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)
[HIS 101-102 History of Western Civilization I-II (6)]
ITE 119 Information Literacy (3)
MTH 151 Mathematics for Liberal Arts I (3)
Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (37 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Laboratory Science Elective (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following (other combinations approved by Division Dean):
BIO 101-102 General Biology I-II (4)(4)
BIO 231-232 Human Anatomy and Physiology I-II (4)(4)
CHM 111-112 College Chemistry I-II (4)(4)
GOL 105-106 Physical Geology – Historical Geology (4)(4)
PHY 201-202 General College Physics I-II (4)(4)
PHY 241-242 University Physics I-II (4)(4)

Social Science Elective (6 Credits): Select from:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & Land: Intro. Cultural Geography (3)
PLE 211 U.S. Government I (3)
PLE 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
PSY 230 Developmental Psychology (3)
SOC 200 Principles to Sociology (3)

Humanities Elective (6 credits): Select from:
ART 101 Appreciation and History of Art I (3)
[ART 201 History of Art I (3)]
ART 102 Appreciation and History of Art II (3)
[ART 202 History of Art II (3)]
CST 130 Introduction to the Theatre (3)
[or CST 231 History of the Theatre I (3)]
ENG 241-242 Survey of American Literature I-II (3)(3)
ENG 243-244 Survey of English Literature I-II (3)(3)
ENG 251-252 Survey of World Literature I-II (3)(3)
FRE 101-102 Beginning French I-II (4)(4)
MUS 121 Music Appreciation I (3)
PHI 220 Ethics (3)
PHI 101 Introduction to Philosophy I (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World I (3)
SPA 101-102 Beginning Spanish I-II (4)(4)

Appalachian Studies Electives (9 credits):
Select from the following:
ENG 278 Appalachian Literature (3)
ENG 288 Appalachian Folklore (3)
HUM 153 Introduction to Appalachian Studies (3)

MUS 218 Traditional Music and Musicians of Central Appalachia (3)
GEO 210 People and Land: Intro to Cultural Geography (3)
SOC 205 Rural Sociology (3)
HIS 295 Special Topics in Appalachian Studies (3)
PSY 219 Cross-Cultural Psychology (3)

Transfer Electives (6 credits)
Minimum required for degree: 60 Credits

Sample Schedule
Appalachian Studies

FIRST YEAR
Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
 ITE 119 Information Literacy 3
 Science with Laboratory 4
 Total 14

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
Appalachian Studies Elective 3
Science with Laboratory 4
 Transfer Elective 3
 Total 16

SECOND YEAR
Fall Semester
CST 110 Introduction to Communication 3
MTH 151 Math for Liberal Arts I 3
[or other approved math requirement]
Appalachian Studies Elective 3
Humanities Elective 3
Social Science Elective 3
Wellness 2
 Total 17

Spring Semester
SDV 199 Supervised Study in Transfer Programs 1
Appalachian Studies Elective 3
Humanities Elective 3
Social Science Elective 3
Transfer Elective 3
 Total 13

Total Semester Hours: 60
General Studies
Criminal Justice Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (20 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)
[HIS 101-102 History of Western Civilization I-II (6)]
MTH 241 Statistics I (3)
Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (41 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (8 Credits):
Must complete a two semester sequence:
BIO 101-102 General Biology I-II (4)(4)
CHM 111-112 College Chemistry I-II (4)(4)
GOL 105-106 Physical Geology – Historical Geology (4)(4)
PHY 201-202 General College Physics I-II (4)(4)

Social Science Elective (3 Credits): Select from:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & Land: Intro. to Cultural Geography (3)
PLS 211 U.S. Government I (3)
PSY 200 Principles of Psychology (3)
SOC 200 Principles of Sociology (3)
SOC 268 Social Problems (3)

Foreign Language (8 Credits): Select from:
SPA 101-102 Beginning Spanish I-II (4)(4)
FRE 101-102 Beginning French I-II (4)(4)

Humanities (3 credits):
REL 231 Religions of the World I (3)

Humanities Elective (3 credits): Select from:
ART 101-102 Appreciation and History of Art I (3)(3)
CST 130 Introduction to the Theatre (3)
CST 231 History of the Theatre I (3)
ENG 241-242 Survey of American Literature I (3)(3)
ENG 243-244 Survey of English Literature I (3)(3)
ENG 251-252 Survey of World Literature I (3)(3)
ENG 253-254 Survey of African-American Literature I (3)(3)
MUS 121 Music Appreciation I (3)
PHI 101 Introduction to Philosophy I (3)
PHI 220 Ethics (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World I (3)

English (Literature Elective)(3 Credits)—selected from:
ENG 241-242 Survey of American Literature I (3)(3)
ENG 243-244 Survey of English Literature I (3)(3)

Criminal Justice Electives (9) Select from:
ADJ 100 Survey of Criminal Justice (3)
ADJ 105 The Juvenile Justice System (3)
ADJ 145 Corrections and the Community (3)
ADJ 146 Adult Correctional Institutions (3)
[or ADJ 140 Introduction to Corrections (3)]
ADJ 201 Criminology (3)

Minimum required for degree: 60 Credits

Sample Schedule
Criminal Justice

FIRST YEAR

Fall Semester
ENG 111 College Composition 3
HIS 121 United States History I 3
SDV 108 College Survival Skills 1
Transfer Lab Science 4
Wellness 1
16

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
[S or HIS 102]
CST 110 Introduction to Communications 3
Social Science Elective 3
Transfer Lab Science 4
16

SECOND YEAR

Fall Semester
ITE 119 Information Literacy 3
REL 231 Religions of the World I 3
Humanities Elective 3
Wellness 1
Foreign Language Elective 4
MTH 241 Statistics 3
17

Spring Semester
SDV 199 Supervised Study in Transfer Programs 1
Foreign Language Elective 4
Humanities Elective 3
Criminal Justice Elective 3
English (Literature Elective) 3
14

Total Semester Hours: 62
American University

Gender Studies Specialization

**Award:** Associate of Arts & Sciences

**Length:** 4 Semesters

### General Education Requirements (23 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENG 111-112</td>
<td>College Composition I-II</td>
<td>(3)(3)</td>
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<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>(3)</td>
</tr>
<tr>
<td>HIS 121-122</td>
<td>United States History I-II</td>
<td>(3)(3)</td>
</tr>
<tr>
<td>[or HIS 101-102]</td>
<td>History of Western Civilization I-II</td>
<td>(3)(3)</td>
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<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>(3)</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for Liberal Arts I</td>
<td>(3)</td>
</tr>
<tr>
<td>Wellness (2)</td>
<td>Health, P.E. or recreation courses which promote physical and emotional well being</td>
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</tr>
</tbody>
</table>

### Program Requirements (37 Credits):

**NOTE:** To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
</tr>
<tr>
<td>SDV 199</td>
<td>Supervised Study in Transfer Programs</td>
</tr>
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### Laboratory Science Elective (8 Credits):

Must complete a two semester sequence

Courses may be selected from the following (other combinations approved by Division Dean):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 101-102</td>
<td>General Biology I-II</td>
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<tr>
<td>BIO 231-232</td>
<td>Human Anatomy and Physiology I-II</td>
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<tr>
<td>CHM 111-112</td>
<td>College Chemistry I-II</td>
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<tr>
<td>GOL 105-106</td>
<td>Physical Geology – Historical Geology</td>
</tr>
<tr>
<td>PHY 201-202</td>
<td>General College Physics I-II</td>
</tr>
<tr>
<td>PHY 241-242</td>
<td>University Physics I-II</td>
</tr>
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</table>

### Social Science Elective (6 Credits): Select from:

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<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>GEO 210</td>
<td>People &amp; Land: Intro. To Cultural Geography</td>
</tr>
<tr>
<td>PL S 211</td>
<td>U.S. Government I</td>
</tr>
<tr>
<td>PL S 212</td>
<td>U.S. Government II</td>
</tr>
<tr>
<td>PSY 200</td>
<td>Principles of Psychology</td>
</tr>
<tr>
<td>PSY 230</td>
<td>Developmental Psychology</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Principles to Sociology</td>
</tr>
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</table>

### Humanities Elective (6 credits): Select from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ART 101</td>
<td>Appreciation and History of Art I</td>
</tr>
<tr>
<td>[or ART 201]</td>
<td>History of Art I</td>
</tr>
<tr>
<td>ART 102</td>
<td>Appreciation and History of Art II</td>
</tr>
<tr>
<td>[or ART 202]</td>
<td>History of Art II</td>
</tr>
<tr>
<td>CST 130</td>
<td>Introduction to the Theatre</td>
</tr>
<tr>
<td>[or CST 231]</td>
<td>History of the Theatre I</td>
</tr>
<tr>
<td>ENG 241-242</td>
<td>Survey of American Literature I-II</td>
</tr>
<tr>
<td>ENG 243-244</td>
<td>Survey of English Literature I-II</td>
</tr>
<tr>
<td>ENG 251-252</td>
<td>Survey of World Literature I-II</td>
</tr>
<tr>
<td>ENG 253-254</td>
<td>Survey of African-American Literature I-II</td>
</tr>
<tr>
<td>FRE 101-102</td>
<td>Beginning French I-II</td>
</tr>
<tr>
<td>MUS 121</td>
<td>Music Appreciation I</td>
</tr>
<tr>
<td>PHI 101</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHI 220</td>
<td>Ethics</td>
</tr>
<tr>
<td>REL 200</td>
<td>Survey of the Old Testament</td>
</tr>
<tr>
<td>REL 210</td>
<td>Survey of the New Testament</td>
</tr>
<tr>
<td>REL 231</td>
<td>Religions of the World I</td>
</tr>
<tr>
<td>SPA 101-102</td>
<td>Beginning Spanish I-II</td>
</tr>
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### Gender Studies Electives (9 credits):

Select from the following:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ENG 273</td>
<td>Women in Literature I</td>
</tr>
<tr>
<td>ENG 274</td>
<td>Women in Literature II</td>
</tr>
<tr>
<td>HIS 127</td>
<td>Women in American History</td>
</tr>
<tr>
<td>HLT 204</td>
<td>Women's Health</td>
</tr>
</tbody>
</table>

### Transfer Electives (6 credits)

Minimum required for degree: **60 Credits**

### Sample Schedule

#### Gender Studies

**FIRST YEAR**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 121</td>
<td>United States History I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>Science with Laboratory</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Transfer Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>14</strong></td>
</tr>
</tbody>
</table>

**Spring Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 199</td>
<td>Supervised Study in Transfer Programs</td>
<td>1</td>
</tr>
<tr>
<td>Gender Studies Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Science with Laboratory</td>
<td></td>
<td>4</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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**SECOND YEAR**

**Fall Semester**

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<tr>
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<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
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<tr>
<td>MTH 151</td>
<td>Math for Liberal Arts I</td>
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</tr>
<tr>
<td>Gender Studies Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
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<td>3</td>
</tr>
<tr>
<td>Wellness</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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**Spring Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDV 199</td>
<td>Supervised Study in Transfer Programs</td>
<td>1</td>
</tr>
<tr>
<td>Gender Studies Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Humanities Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Transfer Elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

**Total Semester Hours: 60**
General Studies
Human Services Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (20 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (3)
[HIS 101-102 History of Western Civilization I-II (3)](3)
MTH 152 Mathematics for Liberal Arts II (3)
Wellness (2)— Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (40 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following:
BIO 101-102 General Biology I-II (4)
BIO 231-232 Human Anatomy and Physiology I-II (4)

Social Science (6 Credits):
PSY 200 Principles of Psychology (3)
SOC 200 Principles to Sociology (3)

Humanities Elective (6 credits): Select from:
ART 101 Appreciation and History of Art I (3)
[ART 201 History of Art I (3)]
ART 102 Appreciation and History of Art II (3)
[ART 202 History of Art II (3)]
CST 130 Introduction to the Theatre (3)
[ or CST 231 History of the Theatre I (3)]
ENG 241-242 Survey American Literature I-II (3)
ENG 243-244 Survey English Literature I-II (3)
ENG 251-252 Survey World Literature I-II (3)
ENG 253-254 Survey African-American Literature I-II (3)
MUS 121 Music Appreciation I (3)
PHI 101 Introduction to Philosophy I (3)
PHI 200 Ethics (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World (3)
SPA 101-102 Beginning Spanish I-II (4)

Human Services (15 credits):
HMS 100 Introduction to Human Services (3)
HMS 162 Communication Skills for Human Services Professionals (3)
HMS 195 Introduction to Developmental Disabilities (3)

HMS EEE Approved HMS Electives (6) Select from:
PSY 216 Social Psychology (3)
PSY 230 Developmental Psychology (3)
SOC 215 Sociology of the Family (3)
SOC 268 Social Problems (3)
SOC 226 Human Sexuality (3)
HMS 251 Substance Abuse I (3)
PSY 215 Abnormal Psychology (3)
HMS 290 Coordinated Internship in Human (3)

Minimum required for degree: 60 Credits

Sample Schedule
Human Services

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
[or HIS 101]
SDV 108 College Survival Skills 1
HMS 100 Introduction to Human Services 3
Science with Laboratory 4

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
[or HIS 102]
HMS 162 Communication Skills for Human Services Professionals 3
PSY 200 Principles of Psychology I 3
Science with Laboratory 4

SECOND YEAR

Fall Semester
CST 110 Introduction to Communication 3
HMS 195 Introduction to Developmental Disabilities 3
HMS EEE Approved HMS Elective 3
Humanities Elective 3
SOC 200 Principles of Sociology 3
Wellness 1

Spring Semester
HMS EEE Approved Human Services Elective 3
ITE 119 Information Literacy 3
Humanities Elective 3
MTH 152 Math for Liberal Arts II 3
[or other approved math requirement]
SDV 199 Supervised Study in Transfer Programs 1
Wellness 1

Total Semester Hours: 60
General Studies
Information Technology Specialization

Award: Associate of Arts and Sciences
Length: 4 Semesters

General Education Requirements (22 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]
Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):
[a] MTH 163 Precalculus I (3)
and MTH 271 Applied Calculus I (3)
[b] MTH 151 Mathematics for the Liberal Arts I (3)
and MTH 152 Mathematics for the Liberal Arts II (3)
[c] MTH 163 Precalculus I (3)
and MTH 164 Precalculus II (3)
[d] MTH 175 Calculus of One Variable I (3)
and MTH 176 Calculus of One Variable II (3)
and MTH 177 Introductory Linear Algebra (2)
and MTH 178 Topics in Analytic Geometry (2)
[e] MTH 163 Precalculus I (3)
and MTH 241 Statistics I (3)
Wellness (1)— Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (39 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following (other combinations approved by Division Dean):
BIO 101-102 General Biology I-II (4)(4)
BIO 231-232 Human Anatomy and Physiology I-II (4)(4)
CHM 111-112 College Chemistry I-II (4)(4)
GOL 105-106 Physical Geology – Historical Geology (4)(4)
PHY 201-202 General College Physics I-I (4)(4)
PHY 241-242 University Physics I-II (4)(4)

Social Science Electives (6 Credits):
Courses may be selected from the following:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & Land: Intro. to Cultural Geography (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
SOC 200 Principles of Sociology (3)
SOC 268 Social Problems (3)

Fine Arts Elective (3 credits):
Selected from college transfer courses in art, communication studies, foreign language, literature, music, philosophy, religion and theatre.

Information Systems Electives (14 credits):
Selected from transfer courses in information technology and business, including CSC 200 (3), CSC 201 (4), CSC 202 (4), CSC 205 (3), ITP 120 (Java I) (4), ITP 220 (Java II) (4).

College Transfer Electives (6 Credits)
Selected from transfer courses in business, engineering, fine arts, the humanities, information technology, mathematics, physical education, science and social sciences.

Minimum required for degree: 61 Credits

Sample Schedule
Information Technology Specialization

FIRST YEAR
Fall Semester
ENG 111 College Composition I 3
MATH (from approved math requirement list) 3
SDV 108 College Survival Skills 1
CSC 200 Introduction to Computer Science 4
Wellness 1
Total: 15

Spring Semester
ENG 112 College Composition II 3
CST 110 Introduction to Communication 3
MATH (from approved math requirement list) 3
CSC 202 Computer Science II 4
College Transfer Elective 3
Total: 16

SECOND YEAR
Fall Semester
HIS 121 United States History I 3
(or HIS 101)
Social Science 3
Science with Laboratory 4
CSC 205 Computer Organization 3
Fine Arts Elective 3
Total: 16

Spring Semester
HIS 122 United States History II 3
(or HIS 102)
Social Science 3
SDV 199 Supervised Study in Transfer Programs 1
Science with Laboratory 4
College Transfer Elective 3
Total: 14

Total Semester Hours: 61
General Studies
Recreation, Parks, and Leisure Studies Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (23 Credits):
ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)
[HIS 101-102 History of Western Civilization I-II (6)]
ITE 119 Information Literacy (3)
MTH 151 Mathematics for Liberal Arts I (3)
Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (37 Credits):
NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these requirements:
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Laboratory Science Elective (8 Credits):
Must complete a two semester sequence
Courses may be selected from the following (other combinations approved by Division Dean):
BIO 101-102 General Biology I-II (4)(4)
BIO 231-232 Human Anatomy and Physiology I-II (4)(4)
CHM 111-112 College Chemistry I-II (4)(4)
GOL 105-106 Physical Geology – Historical Geology (4)(4)
PHY 201-202 General College Physics I-II (4)(4)
PHY 241-242 University Physics I-II (4)(4)

Social Science Elective (6 Credits): Select from:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & the Land: Intro. Cultural Geography (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
PSY 230 Developmental Psychology (3)
SOC 200 Principles to Sociology (3)

Humanities Electives (6 credits): Select from:
ART 101 Appreciation and History of Art I (3)
[ART 201 History of Art I (3)]
ART 102 Appreciation and History of Art II (3)
[ART 202 History of Art II (3)]
CST 130 Introduction to the Theatre (3)
[ CST 231 History of the Theatre I (3)]
ENG 241-242 Survey of American Literature I-II (3)(3)
ENG 243-244 Survey of English Literature I-II (3)(3)
ENG 251-252 Survey of World Literature I-II (3)(3)
ENG 253-254 Survey of African-American Literature I-II (3)(3)
FRE 101-102 Beginning French I-II (4)(4)
MUS 121 Music Appreciation I (3)

PHI 101 Introduction to Philosophy I (3)
PHI 220 Ethics (3)
REL 200 Survey of the Old Testament (3)
REL 210 Survey of the New Testament (3)
REL 231 Religions of the World I (3)
SPA 101-102 Beginning Spanish I-II (4)(4)

Recreation, Parks, and Leisure Studies (15 credits):
PED 210 Introduction to Physical Education and Health (3)
RPK 100 Introduction to Recreation, Parks, and Leisure Studies (3)
RPK 201 Recreation and Parks Management (3)
RPK 210 Principles and Psychology of Coaching (3)
RPK 265 Risk Management (3)

Minimum required for degree: 60 Credits

Sample Schedule
Recreation, Parks, & Leisure Studies

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I (or HIS 101) 3
PED 210 Introduction to Physical Education & Health 3
SDV 108 College Survival Skills 1
Science with Laboratory 4
Total Semester Hours: 14

Spring Semester
HIS 121 United States History II (or HIS 102) 3
ITE 119 Information Literacy 3
RPK 100 Intro. to Recreation, Parks, & Leisure Studies 3
Science with Laboratory 4
Total Semester Hours: 16

SECOND YEAR

Fall Semester
CST 110 Introduction to Communication 3
Humanities Elective 3
MTH 151 Math for Liberal Arts I (or other approved math requirement) 3
RPK 201 Recreation & Parks Management 3
Social Science Elective 3
Wellness 2

Spring Semester
Humanities Elective 3
RPK 210 Principles & Psychology of Coaching 3
RPK 265 Risk Management 3
SDV 199 Supervised Study in Transfer Programs 1
Social Science Elective 3

Total Semester Hours: 60
General Studies
Visual Arts Specialization

Award: Associate of Arts & Sciences
Length: 4 Semesters

General Education Requirements (23 Credits):
ENG 111-112 College Composition I-II (6)
HIS 121-122 United States History I-II (6)
[or HIS 101-102 History of Western Civilization I-II (6)]
Choose one of the following combinations to fulfill the Math requirement based on requirements of the transfer institution:
[a] MTH 163 Precalculus I (3)
    and MTH 271 Applied Calculus I (3)
[b] MTH 151 Mathematics for the Liberal Arts I (3)
    and MTH 152 Mathematics for the Liberal Arts II (3)
[c] MTH 163 Precalculus I (3)
    and MTH 164 Precalculus II (3)
[d] MTH 175 Calculus of One Variable I (3)
    and MTH 176 Calculus of One Variable II (3)
    and MTH 177 Introductory Linear Algebra (2)
    and MTH 178 Topics in Analytic Geometry (2)
[e] MTH 163 Precalculus I (3)
    and MTH 241 Statistics I (3)
CST 110 Introduction to Communication (3)
Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (37 Credits):
ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

ART Electives (15): Select from:
ART 101 Appreciation and History of Art I (3)
ART 102 Appreciation and History of Art II (3)
ART 121 Drawing I (3)
ART 122 Drawing II (3)
ART 151 Theory and Practice of Ceramics I (3)
ART 201 Art History I (3)
ART 202 Art History II (3)
ART 241 Painting I (3)
ART 242 Painting II (3)

English (Literature Elective) (3 Credits)—selected from:
ENG 241-242 Survey of American Literature I-II (3)(3)
ENG 243-244 Survey of English Literature I-II (3)(3)
ENG 251-252 Survey of World Literature I-II (3)(3)
ENG 253-254 Survey of African-American Literature I-II (3)(3)

Transfer Laboratory Science (8 Credits):
Must complete a two semester sequence

Social Science (6 Credits):
Courses may be selected from the following:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & the Land: Intro. to Cult. Geog. (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
PSY 201 Introduction to Psychology I (3)
PSY 202 Introduction to Psychology II (3)
SOC 200 Principles of Sociology (3)
SOC 201 Introduction to Sociology I (3)
SOC 202 Introduction to Sociology II (3)

Electives (3 Credits)

Minimum required for degree: 60 Credits

Sample Schedule
Visual Arts

FIRST YEAR

Fall Semester
Art Program Elective 3
ENG 111 College Composition I 3
HIS 121 United States History I 3
[or HIS 101]
SDV 108 College Survival Skills 1
Science with Laboratory 4

Spring Semester
Art Program Elective 3
ENG 112 College Composition II 3
HIS 122 United States History II
[or HIS 102]
ITE 119 Information Literacy 3
Science with Laboratory 4

SECOND YEAR

Fall Semester
Art Program Elective 3
Art Program Elective 3
ENG . Literature Elective 3
Social Science 3
Wellness 2
MTH 163 Precalculus I (3)
(or other approved math requirement )

Spring Semester
Art Program Elective 3
Social Science 3
MTH 271 Applied Calculus I
(or other approved math requirement )
CST 110 Introduction to Communication 3
SDV 199 Supervised Study in Transfer Programs 1

Total Semester Hours: 60
**General Studies**

**Teacher Education Preparation Specialization**

**Award:** Associate of Arts & Sciences  
**Length:** 4 Semesters

**Purpose:** The curriculum is designed to prepare the student who plans to complete a baccalaureate degree program in early childhood education, elementary education, middle education, or special education. The transfer institution's catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution. This program is part of an agreement between the Virginia Community College System and various public and private four-year institutions in the Commonwealth of Virginia and is intended to facilitate entry into a teacher preparation program. Specifically, the following baccalaureate programs are targeted:

- Early Childhood [Pre-K through 3rd grade]
- Elementary [Pre-K through 6th grade]
- Middle Education [6th through 8th grade]
- Special Education

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

**Other Information:** Students planning ahead for this curriculum will find it most helpful to have completed college preparatory curriculum courses in high school in areas such as English, mathematics (two units of algebra and one of plane geometry), laboratory science, social studies, and foreign language. Scholarship money is available through the Tobacco Commission. Students entering this program should contact the Financial Aid office for complete information regarding scholarships.

**Transfer Information:** The student should become familiar with the requirements of the major department in the college or university to which transfer is contemplated and also consult the assigned academic advisor before planning a program of study. In order to prepare for junior class standing at a four-year college or university, the student must complete a program that is comparable in length and course content to the first two years of the program at the four-year institution. Students completing this curriculum are required to pass the PRAXIS I examination.

Counselors have transfer guides from many institutions to assist in selection of courses. Every institution has unique requirements, so the student should investigate the programs of each institution under consideration for transfer.

**Students should be particularly careful to select electives that correspond to requirements of the transfer institution. Students are required to pass PRAXIS I.**

**Curriculum Requirements:** Students must successfully complete all of the requirements listed below to be awarded this degree.

**Program Outcomes:** A student will be able to:
- Demonstrate effective verbal and written communication skills.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Demonstrate an appreciation for the arts.
- Describe the importance of a historical and cultural perspective in the global community.
- Describe the current status of teaching and education as a profession and the required path needed for teacher licensure in Virginia.

**General Education Requirements (29 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tr>
<td>ENG 111</td>
<td>3</td>
<td>College Composition I</td>
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<tr>
<td>ENG 112</td>
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<tr>
<td>ENG 241</td>
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<tr>
<td>or ENG 242</td>
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<tr>
<td>or ENG 244</td>
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<tr>
<td>or ENG 251</td>
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<tr>
<td>or ENG 252</td>
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</tr>
<tr>
<td>HIS 121</td>
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<tr>
<td>HIS 101</td>
<td>3</td>
<td>History of Western Civilization I</td>
</tr>
<tr>
<td>or HIS 102</td>
<td>3</td>
<td>History of Western Civilization II</td>
</tr>
</tbody>
</table>

Choose one of the following combinations [a or b] to fulfill the Math requirement (choose based on the requirements of the transfer institution):

- **[a]** MTH 163 | 3 | Precalculus I
- **[b]** MTH 241 | 3 | Statistics I
- MTH 151 | 3 | Mathematics for the Liberal Arts I
- **[a]** MTH 152 | 3 | Mathematics for the Liberal Arts II
- CST 110 | 3 | Introduction to Communication
- Wellness (2)—Health, P.E. or recreation courses which promote physical and emotional well being

**Program Requirements (31 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>EDU 200</td>
<td>3</td>
<td>Introduction to Teaching as a Profession</td>
</tr>
<tr>
<td>GEO 210</td>
<td>3</td>
<td>People and Land: Intro to Cultural Geography</td>
</tr>
<tr>
<td>ITE 119</td>
<td>3</td>
<td>Information Literacy</td>
</tr>
<tr>
<td>SDV 101</td>
<td>1</td>
<td>Orientation to Education</td>
</tr>
<tr>
<td>or SDV 108</td>
<td>1</td>
<td>College Survival Skills</td>
</tr>
<tr>
<td>SDV 199</td>
<td>1</td>
<td>Supervised Study in Transfer Programs</td>
</tr>
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</table>

**Transfer Laboratory Science (8 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 101</td>
<td>4</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIO 102</td>
<td>4</td>
<td>General Biology II</td>
</tr>
</tbody>
</table>

**Social Science Elective (6 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>3</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>or ECO 202</td>
<td>3</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>PLS 135</td>
<td>3</td>
<td>American National Politics</td>
</tr>
</tbody>
</table>
Humanities/Fine Arts Electives (6 Credits):
Courses may be selected from the following:
ART 101 History and Appreciation of Art I (3)
ART 102 History and Appreciation of Art II (3)
ART 201 History of Art I (3)
ART 202 History of Art II (3)
CST 130 Introduction to the Theatre (3)
MUS 121 Music Appreciation I (3)
MUS 122 Music Appreciation II (3)

Minimum required for degree: 60 Credits

Sample Schedule
Teacher Education Preparation

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
MTH 163 Precalculus I
(or MTH 151) 3
SDV 101 Orientation to Education
(or SDV 108) 1
Wellness Elective 2

Spring Semester
ART/MUS/CST Humanities/Fine Arts Elective 3
ENG 112 College Composition II 3
HIS 122 United States History II 3
ITE 119 Information Literacy 3
MTH 241 Statistics I
(or MTH 152) 3
PLS 135 American National Politics 3

SECOND YEAR

Fall Semester
BIO 101 General Biology I 4
ECO 201 Principles of Macroeconomics
(or ECO 202) 3
EDU 200 Introduction to Teaching as a Profession 3
HIS 101 History of Western Civilization I
(or HIS 102) 3
CST 110 Introduction to Communication 3

Spring Semester
ART/MUS/CST Humanities/Fine Arts Elective 3
BIO 102 General Biology II 4
ENG Literature Elective 3
GEO 210 People & the Land: Intro. to Cult. Geography 3
SDV 199 Supervised Study in Transfer Programs 1

Total Semester Hours: 60

Science

Award: Associate of Arts and Sciences
Length: 4 Semesters

Purpose: The curriculum is designed for the student who plans to complete a baccalaureate degree program. The transfer institution’s catalog and transfer guide are the best sources of information for planning a course of study. Final responsibility for transferability of courses rests with the student and the registrar of that institution.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Other Information: Students planning ahead for this curriculum will find it most helpful to have completed college preparatory curriculum courses in high school in areas such as English, mathematics (two units of algebra and one of plane geometry), laboratory science, social studies, and foreign language.

Transfer Information: The student should become familiar with the requirements of the major department in the college or university to which transfer is contemplated and also consult the assigned academic advisor before planning a program of study. In order to prepare for junior class standing at a four-year college or university, the student must complete a program that is comparable in length and course content to the first two years of the program at the four-year institution.

Counselors have transfer guides from many institutions to assist in selection of courses. Every institution has unique requirements, so the student should investigate the programs of each institution under consideration for transfer.

Students should be particularly careful to select electives that correspond to requirements of the transfer institution.

Curriculum Requirements: Students must successfully complete all of the requirements listed below to be awarded this degree.

Program Outcomes: A student will be able to:
• Demonstrate effective verbal and written communication skills.
• Apply mathematical and scientific reasoning skills to formulate and solve problems.
• Demonstrate proficiency in personal computer operations and applications.
• Demonstrate proficiency in information literacy.
• Demonstrate ability to reason critically and problem-solve.
• Demonstrate proficiency in oral communication methods.
• Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
• Use laboratory equipment in a safe and proficient manner.
• Demonstrate the ability to compose a formal scientific report.
• Demonstrate the ability to use scientific tools for processing, evaluation, and presentation.
General Education Requirements (22-24 Credits):

ENG 111-112 College Composition I-II (6)
CST 110 Introduction to Communication (3)
HIS 121-122 United States History I-II (6)

[or HIS 101-102 History of Western Civilization I-II (6)]

Choose one of the following combinations to fulfill the Math requirement (choose based on the requirements of the transfer institution):

[a] MTH 166 Precalculus with Trigonometry (4)
and MTH 273 Calculus 1 (4)
[b] MTH 166 Precalculus with Trigonometry (4)
and MTH 274 Calculus 2 (4)
[c] MTH 166 Precalculus with Trigonometry (4)
and MTH 241 Statistics 1 (3)
or MTH 175 Calculus of One Variable I (3)
[d] MTH 166 Precalculus with Trigonometry (4)
and MTH 176 Calculus of One Variable II (3)
and MTH 177 Introduction to Linear Algebra (2)
[e] MTH 163 Precalculus 1 (3)
and MTH 157 Elementary Statistics (3)
or MTH 241 Statistics 1 (3)
or MTH 271 Applied Calculus I (3)
Wellness (1)— Health, P.E. or recreation courses which promote physical and emotional well being

Program Requirements (36 Credits):

NOTE: To select courses, student should consult the catalog of the institution(s) to which transfer is anticipated in addition to these degree requirements.

ITE 119 Information Literacy (3)
SDV 108 College Survival Skills (1)
SDV 199 Supervised Study in Transfer Programs (1)

Transfer Laboratory Science (16 Credits):
Must complete 2 two-semester sequences

Social Science (6 Credits):
Courses may be selected from the following:
ECO 201 Principles of Macroeconomics (3)
ECO 202 Principles of Microeconomics (3)
GEO 210 People & the Land: Intro. to Cult. Geography (3)
PLS 211 U.S. Government I (3)
PLS 212 U.S. Government II (3)
PSY 200 Principles of Psychology (3)
SOC 200 Principles of Sociology (3)
SOC 268 Social Problems (3)

College Transfer Electives (6-8 Credits):
Selected from transfer courses in business, information technology, science, mathematics, engineering, physical education, social sciences, the humanities, and fine arts.

Fine Arts Electives (3 Credits):
Selected from college transfer courses in art, literature, foreign language, music, philosophy, religion, or communication studies and theatre.

Minimum required for degree: 60 Credits

Sample Schedule

Science

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
HIS 121 United States History I 3
(or HIS 101)
MTH 166 Precalculus with Trigonometry 4
(or other approved math requirement)
SDV 108 College Survival Skills 1
Science with Laboratory 4
Wellness 1
16

Spring Semester
ENG 112 College Composition II 3
HIS 122 United States History II 3
(or HIS 102)
MTH 273 Calculus I 4
(or other approved math requirement)
Science with Laboratory 4
14

SECOND YEAR

Fall Semester
CST 110 Introduction to Communication 3
ITE 119 Information Literacy 3
Science with Laboratory 4
Social Science 3
Fine Arts Elective 3
16

Spring Semester
SDV 199 Supervised Study in Transfer Programs 1
Science with Laboratory 4
Social Science 3
College Transfer Electives 6
14

Total Semester Hours: 60
Administration of Justice

**Award:** Associate of Applied Science  
**Length:** 4 Semesters

**Purpose:** The curriculum is designed to provide a theoretical and practical understanding of the criminal justice profession in local, state, and federal criminal justice systems.

**Program Learning Outcomes:** Graduates of this program will demonstrate general and career specific skills. Graduates will have demonstrated proficiency for employment requirements of local and state police departments, federal agencies, correctional institutions, and security officers in commercial or industrial areas.

**Occupational Objectives:** The program prepares students for career service in the following areas: local and state police departments, federal agencies, correctional institutions, and security officers in commercial or industrial areas.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

**Curriculum Requirements:** The student must satisfactorily complete all general education, program and elective requirements to receive this degree.

**Graduation Requirements:** In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

**General Education Requirements (21 Credits):**
- ENG 111-112 College Composition I-II (6)
- MTH 120 Introduction to Mathematics (3)
- HIS 101-102 History of Western Civilization (6)
  [or HIS 121-122 U.S. History I-II (6)]
  [or HIS 211-212 U.S. Government I-II (6)]
- PST 110 Introduction to Communication (3)
- Wellness (3)--Health, P.E. or recreation courses which promote physical and emotional well being.

**Program Requirements (42 Credits):**
- ADJ 100 Survey of Criminal Justice (3)
- ADJ 105 The Juvenile Justice System (3)
- ADJ 107 Survey of Criminology (3)
- ADJ 111 Law Enforcement Organization & Administration I (3)
- ADJ 130 Introduction to Criminal Law (3)
- ADJ 131 Legal Evidence I (3)
- ADJ 146 Adult Correctional Institutions (3)
- ADJ 228 Narcotics and Dangerous Drugs (3)
- ADJ 236 Principles of Criminal Investigation (3)
- ADJ 237 Advanced Criminal Investigation (3)
- ADJ 280 Capstone Project (1)
- ADJ 299 Supervised Study in ADJ (1)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- PSY 200 Introduction to Psychology I (3)
- SOC 200 Introduction to Sociology I (3)

**Electives (3 Credits):**
- SDV 101 Introduction to Administration of Justice (1)
- SDV 108 College Survival Skills (1)

**Minimum required for degree: 67 Credits**

**Sample Schedule**

**Administration of Justice**

**FIRST YEAR**

**Fall Semester**
- ADJ 100 Survey of Criminal Justice 3
- ADJ 111 Law Enforcement Organization & Administration 3
- ENG 111 College Composition I 3
- ITE 115 Intro. to Computer Applications & Concepts 3
- CST 110 Introduction to Communication 3
- SDV 101 Introduction to Administration of Justice 1
- SDV 108 College Survival Skills 1

**Spring Semester**
- ADJ 105 The Juvenile Justice System 3
- ADJ 146 Adult Correctional Institutions 3
- ADJ 228 Narcotics and Dangerous Drugs 3
- ENG 112 College Composition II 3
- PSY 200 Introduction to Psychology 3

**SECOND YEAR**

**Fall Semester**
- ADJ 130 Introduction to Criminal Law 3
- ADJ 131 Legal Evidence I 3
- MTH 120 Introduction to Mathematics 3
- PLS 211 U.S. Government I 3
  [or HIS 101 or HIS 121]
- SOC 200 Introduction to Sociology 3

**Spring Semester**
- ADJ 236 Principles of Criminal Investigation 3
- ADJ 237 Advanced Criminal Investigation 3
- ADJ 280 Capstone Project 1
- ADJ 299 Supervised Study in ADJ 1
- PLS 212 U.S. Government II 3
  [or HIS 102 or HIS 122]
- Elective 3
- Wellness 3

**Total Semester Hours: 67**
**Business Technology**

**Accounting Major**

**Award:** Associate of Applied Science  
**Length:** 4 Semesters

**Purpose:** This program provides knowledge and skills leading to immediate employment in the field of accounting. People who wish to qualify for promotion in a present position to another field may benefit from this program. Students are strongly urged to consult their faculty advisor in planning programs.

**Occupational Objectives:** Some of the occupations and positions for which graduates of this program may qualify are accounting technician, junior accountant or accountant.

**Potential Certification:** A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
- Microsoft Office Specialist (MOS) - Excel
- American Institute of Professional Bookkeepers – Certified Bookkeeper (CB) (requires related work experience and code of ethics agreement)

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

**Curriculum Requirements:** Students must satisfactorily complete all of the requirements listed below to be awarded this degree.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate effective verbal and written communication skills in a business setting.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Describe and use general business knowledge and skills.
- Apply the principles of financial accounting, managerial accounting, tax accounting, cost accounting, and payroll accounting.
- Prepare and interpret financial statements.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.

**General Education Requirements (20-21 Credits):**

- ECO 201 Principles of Macroeconomics (3)  
  [or ECO 202 Principles of Microeconomics (3)]
- ENG 111 College Composition I (3)
- ENG 112 College Composition II (3)
- MTH 120 Introduction to Mathematics (3)  
  [or MTH 151 Mathematics for the Liberal Arts I (3)]
- Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)
- CST 110 Introduction to Communication (3)
- Wellness (2)-- Health, P.E. or recreation courses which promote physical and emotional well being.

**Program Requirements (48 Credits):**

- ACC 124 Payroll Accounting (3)
- ACC 211-212 Principles of Accounting I-II (6)
- ACC 215 Computerized Accounting (3)
- ACC 221-222 Intermediate Accounting I-II (6)
- ACC 231 Cost Accounting I (3)
- ACC 261 Principles of Federal Taxation I (3)
- ACC 290 Coordinated Internship (3)  
  [or ACC 297 Cooperative Education (3)]
- ACC 299 Supervised Study in Accounting (1)
- BUS 125 Applied Business Mathematics (3)
- BUS 241 Business Law I (3)
- FIN 215 Financial Management (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- ITE 130 Introduction to Internet Services (3)
- ITE 140 Spreadsheet Software (3)
- SDV 101 Orientation to Business Technology (1)
- SDV 108 College Survival Skills (1)

Minimum required for degree: 68 Credits
Sample Schedule
Accounting

FIRST YEAR

**Fall Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120</td>
<td>Introduction to Mathematics [or MTH 151]</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Business Technology</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
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**Spring Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BUS 125</td>
<td>Applied Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics [or ECO 202]</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
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SECOND YEAR

**Fall Semester**

<table>
<thead>
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<th>Course</th>
<th>Title</th>
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<tr>
<td>ACC 221</td>
<td>Intermediate Accounting I</td>
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<tr>
<td>ACC 215</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 261</td>
<td>Principles of Federal Taxation I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
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<tr>
<td>Science Elective</td>
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<td>3-4</td>
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<tr>
<td>Wellness</td>
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**Spring Semester**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 124</td>
<td>Payroll Accounting</td>
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</tr>
<tr>
<td>ACC 222</td>
<td>Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACC 231</td>
<td>Cost Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 290</td>
<td>Coordinated Internship [or ACC 297]</td>
<td>3</td>
</tr>
<tr>
<td>ACC 299</td>
<td>Supervised Study in Accounting</td>
<td>1</td>
</tr>
<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Hours: 68-69**
Business Technology
Administrative Support Technology Major

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. This program prepares a student for work in a general office setting as well as offering skills in the legal and medical office areas. The program enables the student to become proficient in administrative duties and skills in a variety of companies -- including manufacturing, service-oriented, and government--or as a virtual assistant.

Occupational Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as administrative assistant, administrative secretary, executive secretary, medical secretary, medical transcriptionist, customer service representative, legal secretary, office services specialist, and clerical supervisor.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
• Microsoft Office Specialist (MOS) - Word, Excel, PowerPoint, Access
• Certified Administrative Professional (CAP) and Certified Professional Secretary (CPS) - sponsored by the International Association of Administrative Professionals (IAAP) (requires related work experience)

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete all requirements listed below to receive this degree.

Program Learning Outcomes: A student will be able to:
• Demonstrate effective verbal and written communication skills in a business setting.
• Apply mathematical and scientific reasoning skills to formulate and solve problems.
• Describe and use general business knowledge and skills.
• Produce a variety of business documents using correct grammar, punctuation and spelling in a form acceptable in today's business environment.
• Demonstrate proficiency in personal computer operations and applications.
• Demonstrate proficiency in information literacy.
• Demonstrate ability to reason critically and problem-solve.

General Education Requirements (19-20 Credits):
CST 110 Introduction to Communication (3)
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)
Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)
Wellness Health, P.E., or recreation courses which promote physical and emotional well being (1)

Program Requirements (49 Credits):
ACC 124 Payroll Accounting (3)
[or ACC 211 Principles of Accounting I (3)]
AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 113 Keyboarding for Speed and Accuracy (1)
[or AST 154 Introduction to Voice Recognition Software (1)]
AST 141 Word Processing (3)
AST 234 Records and Database Management (3)
AST 238 Word Processing Advanced Operations (3)
AST 243 Office Administration I (3)
AST 244 Office Administration II (3)
AST 260 Presentation Software (3)
AST 290 Coordinated Internship (3)
[or AST 297 Cooperative Education (3)]
AST 299 Supervised Study in AST (1)
BUS 125 Applied Business Mathematics (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 140 Spreadsheet Software (3)
SDV 101 Orientation to Business Technology (1)
SDV 108 College Survival Skills (1)
SPA 103 Basic Spoken Spanish I (3)

Minimum required for degree: 68-69 Credits
**Sample Schedule**  
**Administrative Support Technology**

### FIRST YEAR

#### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AST 101</td>
<td>Keyboarding I</td>
<td>3</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120</td>
<td>Introduction to Mathematics [or MTH 151]</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Business Technology</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
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</table>

#### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 102</td>
<td>Keyboarding II</td>
<td>3</td>
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<tr>
<td>AST 141</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>AST 234</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 125</td>
<td>Applied Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
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</table>

### SECOND YEAR

#### Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>AST 238</td>
<td>Word Processing Advanced Operations</td>
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<tr>
<td>AST 243</td>
<td>Office Administration I</td>
<td>3</td>
</tr>
<tr>
<td>AST 260</td>
<td>Presentation Software</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
</tr>
<tr>
<td>SPA 103</td>
<td>Basic Spoken Spanish I</td>
<td>3</td>
</tr>
<tr>
<td>Wellness Elective</td>
<td>1</td>
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</tr>
</tbody>
</table>

#### Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 124</td>
<td>Payroll Accounting [or ACC 211]</td>
<td>3</td>
</tr>
<tr>
<td>AST 113</td>
<td>Keyboarding for Speed &amp; Accuracy [or AST 154]</td>
<td>1</td>
</tr>
<tr>
<td>AST 244</td>
<td>Office Administration II</td>
<td>3</td>
</tr>
<tr>
<td>AST 290</td>
<td>Coordinated Internship [or AST 297]</td>
<td>3</td>
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<tr>
<td>AST 299</td>
<td>Supervised Study in AST</td>
<td>1</td>
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<tr>
<td>Science Elective</td>
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<tr>
<td>Social Science Elective</td>
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</tbody>
</table>

#### Total Semester Hours: 68-69

### Business Technology

**Administrative Support Technology Major**  
**Medical Office Specialization**

**Award:**  Associate of Applied Science  
**Length:**  4 Semesters

**Purpose:** Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. This program prepares a student for work in a general office setting with specialized training in various medical office areas. The program enables the student to become proficient in administrative duties and provides additional skills in a medical setting.

**Occupational Objectives:** Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as administrative assistant, administrative secretary, executive secretary, medical secretary, medical transcriptionist, medical coder, customer service representative, office services specialist, and clerical supervisor.

**Potential Certification:** A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) - Word, PowerPoint, Access
- American Academy of Professional Coders – Certified Professional Coder (CPC) (requires related work experience and letters of recommendation)

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

**Curriculum Requirements:** The student must satisfactorily complete all requirements listed below to receive this degree.

**Program Learning Outcomes:** A student will be able to:

- Demonstrate effective verbal and written communication skills in a business setting.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Describe and use general business knowledge and skills.
- Produce a variety of business documents using correct grammar, punctuation and spelling in a form acceptable in today's business environment.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills.
that reflect an understanding of diversity and teamwork.
• Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.
• Apply medical vocabulary in producing documents used in the health field.

General Education Requirements (21-22 Credits):
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST 110</td>
<td>Introduction to Communication (3)</td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I (3)</td>
<td></td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II (3)</td>
<td></td>
</tr>
<tr>
<td>HLT 143</td>
<td>Medical Terminology I (3)</td>
<td></td>
</tr>
<tr>
<td>MTH 120</td>
<td>Introduction to Mathematics (3)</td>
<td></td>
</tr>
<tr>
<td>or MTH 151</td>
<td>Mathematics for the Liberal Arts I (3)</td>
<td></td>
</tr>
<tr>
<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)</td>
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<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)</td>
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Program Requirements (47 Credits):
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<th>Course</th>
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<tbody>
<tr>
<td>AST 101</td>
<td>Keyboarding I (3)</td>
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<tr>
<td>AST 102</td>
<td>Keyboarding II (3)</td>
<td></td>
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<tr>
<td>AST 154</td>
<td>Introduction to Voice Recognition Software (1)</td>
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</tr>
<tr>
<td>AST 141</td>
<td>Word Processing (3)</td>
<td></td>
</tr>
<tr>
<td>AST 234</td>
<td>Records and Database Management (3)</td>
<td></td>
</tr>
<tr>
<td>AST 238</td>
<td>Word Processing Advanced Operations (3)</td>
<td></td>
</tr>
<tr>
<td>AST 243</td>
<td>Office Administration I (3)</td>
<td></td>
</tr>
<tr>
<td>AST 245</td>
<td>Medical Machine Transcription (2)</td>
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</tr>
<tr>
<td>AST 260</td>
<td>Presentation Software (3)</td>
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<tr>
<td>AST 271</td>
<td>Medical Office Procedures I (3)</td>
<td></td>
</tr>
<tr>
<td>AST 290</td>
<td>Coordinated Internship (3)</td>
<td></td>
</tr>
<tr>
<td>or AST 297</td>
<td>Cooperative Education [3]</td>
<td></td>
</tr>
<tr>
<td>AST 299</td>
<td>Supervised Study in AST (1)</td>
<td></td>
</tr>
<tr>
<td>HIM 143</td>
<td>Managing Electronic Billing in a Med. Practice (2)</td>
<td></td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts (3)</td>
<td></td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services (3)</td>
<td></td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software (3)</td>
<td></td>
</tr>
<tr>
<td>SPA 103</td>
<td>Basic Spoken Spanish I (3)</td>
<td></td>
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<tr>
<td>SDV 101</td>
<td>Orientation to Business Technology (1)</td>
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</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills (1)</td>
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Minimum required for degree: 68-69 Credits

Sample Schedule
Medical Office

FIRST YEAR

Fall Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AST 101</td>
<td>Keyboarding I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>HLT 143</td>
<td>Medical Terminology I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120</td>
<td>Introduction to Mathematics [or MTH 151]</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Business Technology</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
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Spring Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AST 102</td>
<td>Keyboarding II</td>
<td>3</td>
</tr>
<tr>
<td>AST 141</td>
<td>Word Processing I</td>
<td>3</td>
</tr>
<tr>
<td>AST 234</td>
<td>Records and Database Management</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
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</table>

SECOND YEAR

Fall Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AST 238</td>
<td>Word Processing Advanced Operations</td>
<td>3</td>
</tr>
<tr>
<td>AST 243</td>
<td>Office Administration I</td>
<td>3</td>
</tr>
<tr>
<td>AST 245</td>
<td>Medical Machine Transcription</td>
<td>2</td>
</tr>
<tr>
<td>AST 260</td>
<td>Presentation Software</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective [3-4]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
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</tbody>
</table>

Spring Semester
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 154</td>
<td>Intro. to Voice Recognition Software</td>
<td>1</td>
</tr>
<tr>
<td>AST 271</td>
<td>Medical Office Procedures I</td>
<td>3</td>
</tr>
<tr>
<td>AST 290</td>
<td>Coordinated Internship [or AST 297]</td>
<td>3</td>
</tr>
<tr>
<td>AST 299</td>
<td>Supervised Study in AST</td>
<td>1</td>
</tr>
<tr>
<td>HIM 143</td>
<td>Managing Electronic Billing in a Med. Practice</td>
<td>2</td>
</tr>
<tr>
<td>Social Science Elective</td>
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<td></td>
</tr>
<tr>
<td>SPA 103</td>
<td>Basic Spoken Spanish I</td>
<td>3</td>
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</tbody>
</table>

Total Semester Hours: 68-69
Business Technology
Management Major

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: This program provides knowledge and skills leading to immediate employment in the area of management upon completion of the degree. People who are seeking their first employment or wish to qualify for promotion in a present position to another field may benefit from this program.

Occupational Objectives: Graduates of this program may qualify for positions in general management, manufacturing or industrial management, customer service, sales management or retail management.

Potential Certification: A student may elect to take an industry-specific certification exam. Examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following exams:
- Microsoft Office Specialist (MOS) - Excel

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete requirements listed below to receive this degree.

Program Learning Outcomes: A student will be able to:
- Demonstrate effective verbal and written communication skills in a business setting.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Apply the principles of financial accounting.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Understand and demonstrate the ability to plan.
- Describe contemporary approaches to management and methods to create a positive work environment.

General Education Requirements (20-21 Credits):
- CST 110 Introduction to Communication (3)
- ECO 201 Principles of Macroeconomics (3)
- [or ECO 202 Principles of Microeconomics (3)]
- ENG 111 College Composition I (3)
- ENG 112 College Composition II (3)

Minimum required for degree: 68-69 Credits
## Sample Schedule
### Management

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 100</td>
<td></td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td></td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td></td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120</td>
<td></td>
<td>Introduction to Mathematics [or MTH 151]</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td></td>
<td>Orientation to Business Technology</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td></td>
<td>College Survival Skills</td>
<td>1</td>
</tr>
<tr>
<td>CST 110</td>
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<td>Introduction to Communication</td>
<td>1</td>
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<tr>
<td>Spring Semester</td>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>BUS 125</td>
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<td>Applied Business Mathematics</td>
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</tr>
<tr>
<td>BUS 200</td>
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<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td></td>
<td>Principles of Macroeconomics [or ECO 202]</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td></td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td></td>
<td>Introduction to Internet Services</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td></td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td></td>
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</table>

#### SECOND YEAR

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td></td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 205</td>
<td></td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td></td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 280</td>
<td></td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td></td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Wellness Elective</td>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
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<tr>
<td>Spring Semester</td>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>BUS 165</td>
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<td>Small Business Management</td>
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<tr>
<td>BUS 290</td>
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<td>Coordinated Internship [or BUS 297]</td>
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<tr>
<td>BUS 299</td>
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<td>Supervised Study in Business Management</td>
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<tr>
<td>FIN 215</td>
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<td>Financial Management</td>
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<td>MKT 260</td>
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<td>Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective</td>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
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</tr>
</tbody>
</table>

**Total Semester Hours: 68-69**
Business Technology
Management Major
E-Commerce Management Specialization

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: Individuals seeking their first job or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided knowledge, skills, and training necessary to perform mid-management level functions in a company using the Internet for marketing or sales or any company wanting to begin e-commerce in their operations. Coursework includes instruction in mathematics, critical thinking, technical writing, interpersonal relationships, communications, team building, human relations, management, law, computer applications and the Internet, accounting, marketing, electronic commerce, electronic marketing, web page design, and other areas related to electronic commerce and business management.

Occupational Objectives: Completing this program may lead to employment or career advancement in a wide variety of positions such as Internet marketing specialist, e-commerce specialist, web page designer, electronic business advisor, or electronic advertising specialist.

Potential Certification: Students may elect to take an industry-specific certification exam, which generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
• Microsoft Office Specialist (MOS) – Excel

Curriculum Requirements: The student must satisfactorily complete requirements listed below to receive this degree.

Program Learning Outcomes: A student will be able to:
• Demonstrate effective verbal and written communication skills in a business setting.
• Apply mathematical and scientific reasoning skills to formulate and solve problems.
• Describe and use general business knowledge and skills, including managerial and supervisory concepts.
• Apply the principles of financial accounting.
• Demonstrate proficiency in personal computer operations and applications.
• Demonstrate proficiency in information literacy.
• Demonstrate ability to reason critically and problem-solve.
• Demonstrate proficiency in oral communication methods.
• Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
• Understand and demonstrate the ability to develop a comprehensive business plan.
• Understand contemporary approaches to management and methods to create a positive work environment.
• Demonstrate knowledge of skills and abilities needed to become a successful entrepreneur.

General Education Requirements (20-21 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CST 110</td>
<td>Introduction to Communication (3)</td>
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</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics (3)</td>
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</tr>
<tr>
<td>[or ECO 202</td>
<td>Principles of Microeconomics (3)]</td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I (3)</td>
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<td>ENG 112</td>
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<td>MTH 120</td>
<td>Introduction to Mathematics (3)</td>
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</tr>
<tr>
<td>[or MTH 151</td>
<td>Mathematics for the Liberal Arts I (3)]</td>
<td></td>
</tr>
</tbody>
</table>

Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)
Wellness Health, P.E., or recreation courses which promote physical and emotional well-being. (2)

Program Requirements (48 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I (3)</td>
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<tr>
<td>BUS 100</td>
<td>Introduction to Business (3)</td>
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<tr>
<td>BUS 125</td>
<td>Applied Business Mathematics (3)</td>
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</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management (3)</td>
<td></td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I (3)</td>
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<tr>
<td>BUS 280</td>
<td>Introduction to International Business (3)</td>
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<td>BUS 290</td>
<td>Coordinated Internship (3)</td>
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<tr>
<td>[or BUS 297</td>
<td>Cooperative Education (3)]</td>
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<td>BUS 299</td>
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<td>ITD 110</td>
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<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts (3)</td>
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<td>ITE 130</td>
<td>Introduction to Internet Services (3)</td>
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<td>ITE 140</td>
<td>Spreadsheet Software (3)</td>
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<tr>
<td>MKT 100</td>
<td>Principles of Marketing (3)</td>
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<td>MKT 260</td>
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<td>MKT 281</td>
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<tr>
<td>SDV 101</td>
<td>Orientation to Business Technology (1)</td>
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</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills (1)</td>
<td></td>
</tr>
</tbody>
</table>

Minimum required for degree: 68-69 Credits
## Sample Schedule
### E-Commerce Management

#### FIRST YEAR

**Fall Semester**
- **BUS 100** Introduction to Business 3
- **ENG 111** College Composition I 3
- **ITE 115** Intro. to Computer Applications & Concepts 3
- **MTH 120** Introduction to Mathematics [or MTH 151] 3
- **SDV 101** Orientation to Business Technology 1
- **SDV 108** College Survival Skills 1
- **CST 110** Introduction to Communication 3

**Spring Semester**
- **BUS 125** Applied Business Mathematics 3
- **BUS 200** Principles of Management 3
- **ENG 112** College Composition II 3
- **ITE 130** Introduction to Internet Services 3
- **ITE 140** Spreadsheet Software 3
- **MKT 281** Principles of Internet Marketing 3

#### SECOND YEAR

**Fall Semester**
- **ACC 211** Principles of Accounting I 3
- **BUS 241** Business Law I 3
- **BUS 280** Introduction to International Business 3
- **ITD 110** Web Page Design I 3
- **MKT 100** Principles of Marketing 3
- **Wellness Elective** 3

**Spring Semester**
- **BUS 290** Coordinated Internship [or BUS 297] 3
- **BUS 299** Supervised Study in Business Management 1
- **ECO 201** Principles of Macroeconomics [or ECO 202] 3
- **FIN 215** Financial Management 3
- **MKT 260** Customer Service Management 3
- **Science Elective** 3

**Total Semester Hours:** 68-69

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## Business Technology
### Management Major
#### Entrepreneurship/Small Business Specialization

**Award:** Associate of Applied Science  
**Length:** 4 Semesters

**Purpose:** Individuals, who are seeking their first job or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided knowledge, skills, and training necessary to start a business and manage the functional areas of the business to become a successful entrepreneur. Coursework includes instruction in mathematics, critical thinking, technical writing, interpersonal relationships, communications, team building, human relations, management, law, computer applications and the Internet, accounting, marketing, international business, electronic commerce, small business management, small business marketing, taxation for the small business, financing for the small business, and other areas related to small business management and the entrepreneur.

**Occupational Objectives:** Completion of this program may lead to employment or career advancement in a wide variety of positions such as entrepreneur, small business owner, small business advisor, small business partner, proprietor, owner-operator, or consultant for small business.

**Potential Certification:** A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
- Microsoft Office Specialist (MOS) – Excel

**Curriculum Requirements:** The student must satisfactorily complete requirements listed below to receive this degree.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate effective verbal and written communication skills in a business setting.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Apply the principles of financial accounting.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Understand and demonstrate the ability to plan and development of a comprehensive business plan.
- Understand contemporary approaches to management and methods to create a positive work environment.
- Understand the importance of entrepreneurial behavior and the characteristics of successful entrepreneurs.
General Education Requirements (20-21 Credits):
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
MTH 120 Introduction to Mathematics (3)
[or MTH 151 Mathematics for the Liberal Arts I (3)]
Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)
CST 110 Introduction to Communication (3)
Wellness Health, P.E., or recreation courses which promote physical and emotional well-being. (2)

Program Requirements (48 Credits):
ACC 134 Small Business Taxes (3)
ACC 211 Principles of Accounting I (3)
BUS 100 Introduction to Business (3)
BUS 116 Entrepreneurship (3)
BUS 125 Applied Business Mathematics (3)
BUS 160 Legal Aspects for Small Business Operations (1)
BUS 165 Small Business Management (3)
BUS 241 Business Law I (3)
BUS 280 Introduction to International Business (3)
BUS 290 Coordinated Internship (3)
[or BUS 297 Cooperative Education (3)]
[or Approved Elective (3)]
BUS 299 Supervised Study in Business Management (1)
FIN 260 Financial Management for Small Business (2)
ITE 115 Intro. to Computer Applications & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 140 Spreadsheet Software (3)
MKT 160 Marketing for Small Business (3)
MKT 260 Customer Service Management (3)
SDV 101 Orientation to Business Technology (1)
SDV 108 College Survival Skills (1)

Minimum required for degree: 68-69 Credits

Sample Schedule
Entrepreneurship/Small Business

FIRST YEAR

Fall Semester
BUS 100 Introduction to Business 3
ENG 111 College Composition I 3
ITE 115 Intro. to Computer Applications & Concepts 3
ITE 140 Spreadsheet Software 3
Science Elective 3-4
Wellness Elective 2
17-18

Spring Semester
BUS 116 Entrepreneurship 3
BUS 125 Applied Business Mathematics 3
ENG 112 College Composition II 3
ITE 140 Spreadsheet Software 3
Science Elective
Wellness Elective 2
17-18

SECOND YEAR

Fall Semester
ACC 211 Principles of Accounting I 3
BUS 165 Small Business Management 3
BUS 241 Business Law I 3
BUS 280 Introduction to International Business 3
ECO 201 Principles of Macroeconomics [or ECO 202] 3
MKT 160 Marketing for Small Business 3
18

Spring Semester
ACC 134 Small Business Taxes 3
BUS 160 Legal Aspects for Small Business Operations 1
BUS 290 Coordinated Internship [or BUS 297] 3
BUS 299 Supervised Study in Business Management 1
FIN 260 Financial Management for Small Business 2
ITE 130 Introduction to Internet Services 3
MKT 260 Customer Service Management 3
16

Total Semester Hours: 68-69
Business Technology
Management Major
International Business Specialization

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: Individuals seeking their first job or who wish to qualify for promotion in a present position or to another field, including self-employment may benefit from this program. Students will be provided knowledge, skills, and training necessary to perform mid-management level functions in a company involved in international business or trade and marketing goods or services to international locations. Course work includes instruction in math, critical thinking, technical writing, interpersonal skills, communications, team building, management, law, computer applications and the Internet, accounting, marketing, international business, international marketing, foreign trade, foreign currencies, international economics, foreign language, and other areas related to international business.

Occupational Objectives: Completion of this program may lead to employment or career advancement in a wide variety of positions such as office manager for an international firm, account representative for a multi-national business, import/export manager, international marketing specialist, overseas branch manager, manager in a state or federal government office with international responsibilities, or international salesperson.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Excel

Curriculum Requirements: The student must satisfactorily complete requirements listed below to receive this degree.

Program Learning Outcomes: A student will be able to:

- Demonstrate knowledge of the global business concepts and differences among various countries related to business practices.

General Education Requirements (20-21 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>[or ECO 202 Principles of Microeconomics (3)]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
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<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 120</td>
<td>Introduction to Mathematics</td>
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<tr>
<td>[or MTH 151 Mathematics for the Liberal Arts I (3)]</td>
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<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)</td>
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<td>CST 110</td>
<td>Introduction to Communication</td>
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<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being.</td>
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Program Requirements (48 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
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<tr>
<td>BUS 100</td>
<td>Introduction to Business</td>
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<tr>
<td>BUS 125</td>
<td>Applied Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS 241</td>
<td>Business Law I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 280</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BUS 290</td>
<td>Coordinated Internship</td>
<td>3</td>
</tr>
<tr>
<td>BUS 297</td>
<td>Cooperative Education</td>
<td>3</td>
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<tr>
<td>BUS 299</td>
<td>Supervised Study in Business Management</td>
<td>1</td>
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<tr>
<td>FIN 215</td>
<td>Financial Management</td>
<td>3</td>
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<tr>
<td>GEO 210</td>
<td>People and the Land: Introduction to Cultural Geography</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>MKT 100</td>
<td>Principles of Marketing</td>
<td>3</td>
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<td>MKT 275</td>
<td>International Marketing</td>
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<td>SDV 101</td>
<td>Orientation to Business Technology</td>
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<td>SDV 108</td>
<td>College Survival Skills</td>
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<tr>
<td>Foreign Language Elective</td>
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</tbody>
</table>

Minimum required for degree: 68-69 Credits
Sample Schedule
International Business

FIRST YEAR

Fall Semester
BUS 100  Introduction to Business       3
CST 110  Introduction to Communication     3
ENG 111  College Composition I       3
ITE 115  Intro. to Computer Applications & Concepts 3
MTH 120  Introduction to Mathematics [or MTH 151] 3
SDV 101  Orientation to Business Technology   1
SDV 108  College Survival Skills 
1
17

Spring Semester
BUS 125  Applied Business Mathematics 3
BUS 200  Principles of Management 3
BUS 280  Introduction to International Business 3
ECO 201  Principles of Macroeconomics [or ECO 202] 3
ENG 112  College Composition II 3
ITE 140  Spreadsheet Software 3
18

SECOND YEAR

Fall Semester
ACC 211  Principles of Accounting I 3
BUS 241  Business Law I 3
GEO 210  People & the Land: Intro. to Cultural Geography 3
ITE 130  Introduction to Internet Services 3
MKT 100  Principles of Marketing 3
Wellness Elective             2
17

Spring Semester
BUS 290  Coordinated Internship [or BUS 297] 3
BUS 299  Supervised Study in Business Management 1
FIN 215  Financial Management 3
Foreign Language Elective 3
MKT 275  International Marketing 3
Science Elective 3-4
16-17

Total Semester Hours: 68-69
Education Assisting

Award: Associate of Applied Science
Length: 5 Semesters

Purpose: The program is designed to meet a current workforce development need within the educational delivery system. It will provide the basic or entry-level skill sets required within the teaching profession as it relates to direct instruction and a variety of instructional assistance. Graduates will be prepared to meet Virginia certification (PRAXIS) requirements for preschool public and private agencies as well as public school teaching assistants. Students will learn to use an array of teaching methods, approaches to classroom management, and styles of behavior guidance. The program is a terminal degree for regional workforce development and not intended for transfer. Students who know they want to acquire a bachelor’s degree and a license to teach should investigate the PHCC General Studies degree.

Program Learning Outcomes: The graduate of the program will be qualified to facilitate learning in a variety of environments. Occupational Objectives: Graduates of this program may qualify as educators in a variety of facilities and capacities such as teacher’s aides, public school tutors, and various positions in day care settings including but not limited to directors/administrators.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or Mathematics will complete appropriate developmental prerequisites, prior to enrollment in the program requirements. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete all general education requirements and program requirements to receive an Associate of Applied Science in Education Assisting.

Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

General Education Requirements (23 Credits)

ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
HLT 100 First Aid and Cardiopulmonary Resuscitation (3)
MTH 120 Introduction to Mathematics (3)
PSY 200 Introduction to Psychology (3)
PSY 230 Developmental Psychology (3)
SPA 103 Basic Spoken Spanish I (3)
SDV 101 Orientation to Education as a Discipline (1)
SDV 108 College Survival Skills (1)
ITE 115 Intro. to Computer Applications & Concepts (3)

Program Requirements (43 Credits)

CHD 118 Methods and Materials in the Language Arts for Children (3)
CHD 125 Creative Activities for Children (3)
CHD 126 Science and Math Concepts for Children (3)
CHD 165 Observation and Participation in ECE Settings (3)
CHD 210 Introduction to Exceptional Children (3)
CHD 220 Introduction to School Age Child Care (3)

Minimum required for degree: 66 Credits

Sample Schedule

Education Assisting

FIRST YEAR

Fall Semester

CHD 165 Observation & Participation in ECE Settings 3
SPA 103 Basic Spoken Spanish I 3
MTH 120 Introduction to Mathematics 3
PSY 200 Introduction to Psychology 3
ITE 115 Intro. to Computer Applications & Concepts 3
EDU 200 Introduction to Teaching as a Profession 3

Spring Semester

CHD 220 Introduction to School Age Child Care 3
ENG 112 College Composition II 3
SPA 103 Basic Spoken Spanish I 3
MTH 120 Introduction to Mathematics 3
PSY 200 Introduction to Psychology 3

Summer Session

CHD 225 Curriculum Development for School Age Children 3
ITE 115 Intro. to Computer Applications & Concepts 3
EDU 225 Audio Visual Materials & Computer Software 3

SECOND YEAR

Fall Semester

CHD 225 Curriculum Development for School Age Children (3)
CHD 230 Behavior Manage. for School-Age Child Care (3)
EDU 200 Introduction to Teaching as a Profession (3)
EDU 235 Health, Safety and Nutrition (3)
PSY 230 Developmental Psychology (3)

Spring Semester

CHD 118 Language Arts for Young Children (3)
CHD 265 Adv. Observation & Participation in Early Childhood Settings (3)
EDU 200 Introduction to Teaching as a Profession (3)
EDU 235 Health, Safety and Nutrition (3)
PSY 230 Developmental Psychology (3)

Total Semester Hours: 66
Emergency Medical Services
Paramedic Major

Award: Associate of Applied Science
Length: 5 Semesters

Purpose: This program is designed to provide knowledge and skills to prepare selected students to qualify as practitioners of emergency medical services in a variety of health service facilities. After successful completion of the program, students will be eligible for the National Registry of Emergency Medical Technicians Paramedic Certification examination.

Program Learning Outcomes: Graduates of the program will have the knowledge and skills to practice as a paramedic in a variety of health service facilities. A graduate of the program will have demonstrated mastery of generic and specific basic and advanced life support paramedic skills prior to graduation. Skill attainment is assured through regular, valid and reliable comprehensive assessment.

Special Accreditation Status: The program is accredited by the Virginia Department of Health, Office of Emergency Medical Services.

Occupational Objectives: Employment opportunities for the paramedic include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician’s offices, clinics, industry, and home health care agencies.

Admission Requirements: The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.
3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student’s scores, these courses must be completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.
4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program. Students currently enrolled at the college, in addition to students holding current Virginia certification as either an Emergency Medical Technician, EMT-Enhanced, EMT-Intermediate or holding current National Registry EMT-Intermediate certification, will be given priority for admission into the program and may be considered for advanced placement after all other admission requirements are met.
5. Submit an EMS Program Application form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

Admission Procedure: Applications to the program will be accepted during the specified EMS Education program application periods. After the application period has concluded all completed application files will be reviewed and considered. Qualified applicants enrolled at the college or holding current Virginia certification as an Emergency Medical Technician, Virginia EMT-Enhanced, or holding current National Registry and/or Virginia EMT-Intermediate certification will be given first priority for admission. Incomplete files will not be considered. A completed application file includes the following:

1. The completed EMS Program Application form.
2. Official transcripts of all high school work and all prior college work other than PHCC.
3. Results of the college placement tests, if not from PHCC.
4. A copy of your Virginia EMS certification, if applicable.

Because the EMS Education program addresses the educational needs of students with a variety of experiences and prior education, a limited number of entering class positions may be designated for certified EMT-Intermediates who graduated from accredited programs or for prospective high school graduates who also have been enrolled at PHCC as part of an EMT approved program of dual enrollment. Interested high school sophomores should see their counselors in the spring of their sophomore year. Interested high school juniors should see their counselors in the fall of their junior year.

The typical physical demands of a paramedic include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The paramedic should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory criminal background
check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

**Readmission Requirements:** Any student wishing to reenroll in the EMS Education program must have at least a 2.0 cumulative grade point average at PHCC to be considered. A student who wishes to re-enter the EMS Education program must follow the procedure outlined in the EMS Education Program Student Handbook. The student may be required to enroll in and satisfactorily complete specific courses before and/or after readmission. Additional data may be required. The EMS faculty will consider each student’s application for readmission and the decision to readmit will be based on additional data, prior performance in the EMS Education program and space availability.

Students who fail an EMS course or withdraw for any reason from the EMS Education program may be readmitted to the program only once. All readmissions are at the discretion of the EMS faculty.

**Advanced Placement:** Currently certified Virginia EMT, EMT-Enhanced or EMT-Intermediate providers may be eligible for advanced placement. (NREMT-Intermediate will be accepted).

**Financial Requirements:** In addition to the usual college tuition and fees, this program requires additional expenses. Approximate costs include:

- Drug Screening minimum of $50
- Criminal Background Checks minimum of $100
- Books $650
- Uniforms $100
- Physical Examination $100
- AHA BCLS CPR certification $125
- Transportation to clinical agencies, seminars, etc. as required.

**Transfer of EMS Credit:** Students seeking to transfer credit received from EMS courses at other institutions will be considered on an individual basis by the EMS faculty. The student may be asked to provide course descriptions, course syllabi, achievement scores and selected data from the course instructor in order to determine placement in the EMS program, subject to availability of space. Since there frequently are differences among EMS programs, students wishing to transfer should be aware that there might be an interruption in program progression.

**Curriculum Requirements:** In addition to formal lectures and laboratory exercises, selected experiences within driving distance of the college will be scheduled at day, evening and/or weekend times, depending on availability of facilities.

EMS students will be required to successfully pass cognitive and psychomotor examinations at various points in the curriculum in order to continue in the program. Students who are unsuccessful will be counseled and guided in a specified number of remediation efforts. Upon successful completion of remedial requirements and passing the appropriate examinations, students may continue in the program.

To remain in the program, a student must have a “C” or above in all required EMS courses. Additionally, a grade of “C” or above in all semesters of biology and psychology is required to meet degree requirements.

In order to graduate, students must also be able to demonstrate the college’s specified computer competency requirements.

**General Education Requirements (12 Credits):**

- CST 110 Introduction to Speech Communication (3)
- ENG 111 College Composition I (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- PSY 230 Developmental Psychology (3)

**Program Requirements (57 Credits):**

- EMS 111 Emergency Medical Technician – Basic (7)
- EMS 120 EMT-Basic Clinical (1)
- EMS 151 Introduction to Advanced Life Support (4)
- EMS 153 Basic ECG Recognition (2)
- EMS 155 ALS Medical Care (4)
- EMS 157 ALS Trauma Care (3)
- EMS 159 ALS Special Populations (3)
- EMS 170 ALS Internship I (2)
- EMS 172 ALS Clinical Internship II (2)
- EMS 173 ALS Field Internship II (1)
- EMS 201 Professional Development (3)
- EMS 205 Advanced Pathophysiology (4)
- EMS 207 Advanced Patient Assessment (3)
- EMS 209 Advanced Pharmacology (4)
- EMS 211 Operations (2)
- EMS 242 ALS Clinical Internship III (1)
- EMS 243 ALS Field Internship III (1)
- EMS 244 ALS Clinical Internship IV (1)
- EMS 245 ALS Field Internship IV (1)
- EMS 299 Supervised Study in Emergency Medical Services (1)
- EMS/HLT Electives (2)
- NAS 150 Human Biology (4)
- [or BIO 231 Human Anatomy and Physiology I (4)]
- [or BIO 232 Human Anatomy and Physiology II (4)]
- SDV 108 College Survival Skills (1)

**Minimum required for degree: 69 Credits**
Sample Schedule
Emergency Medical Services
Paramedic Major

FIRST YEAR

Spring Semester
EMS 111 Emergency Medical Technician – Basic 7
EMS 120 EMT-Basic Clinical 1
NAS 150 **Human Biology 4
SVD 108 College Survival Skills 1

Fall Semester
EMS 151 Introduction to Advanced Life Support 4
EMS 153 Basic ECG Recognition 2
EMS 157 ALS Trauma Care 3
EMS 170 ALS Internship I 2
ENG 111 College Composition I 3

Spring Semester
EMS 155 ALS Medical Care 4
EMS 159 ALS Special Populations 3
EMS 172 ALS Clinical Internship II 2
EMS 173 ALS Field Internship II 1
EMS/HLT Elective 1
CST 110 Introduction to Speech Communication 3

SECOND YEAR

Fall Semester
EMS 201 Professional Development 3
EMS 205 Advanced Pathophysiology 4
EMS 207 Advanced Patient Assessment 3
EMS 242 ALS Clinical Internship III 1
EMS 243 ALS Field Internship III 1
PSY 230 Developmental Psychology 3

Spring Semester
EMS 209 Advanced Pharmacology 4
EMS 211 Operations 2
EMS 244 ALS Clinical Internship IV 1
EMS 245 ALS Field Internship IV 1
EMS 299 Supervised Study in Emergency Medical Services 1
EMS/HLT Elective 1
ITE 115 Introduction to Computer Applications 3

Total Semester Hours: 69

General Engineering Technologies

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: Upon successful completion of this program, graduates will possess broad skills in both the application of theories and hands-on experience in a variety of manufacturing related disciplines. Students seeking the unique technical skills in a specific discipline should review related PHCC programs of study.

Program Learning Outcomes: Program graduates’ have generic and specific occupational skills to be competitive in technology-based positions in a variety of engineering settings such as industrial, manufacturing, and commercial. Graduates demonstrate proficiency in 21st Century skills and use of current technological tools of the profession.

Occupational Objectives: Graduates will be qualified in jobs such as engineer’s assistant, supervisor trainee, manufacturing specialist, quality assurance auditor, CAD technician, maintenance lead person, team leader, and computer controlled process technician.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete all requirements to receive an Associate of Applied Science Degree in Engineering Technologies.

Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

Advancement Options: Old Dominion University, East Tennessee State University, Virginia State University, and North Carolina A&T offers graduates of this program advanced credit transfer options for completing a baccalaureate degree. Program specializations offer Industry Certification Examinations.

General Education Requirements (21 Credits):
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
HLT 100 First Aid and Cardiopulmonary Resuscitation (3)
MTH 163 Pre-Calculus I (3)
CST 110 Introduction to Communication (3)
Social Science Elective (3)
Core Program Requirements (36 Credits):
- DRF 200 Survey of Computer Aided Drafting (3)
- DRF 226 Computer Aided Machining (3)
- EGR 120 Introduction to Engineering (2)
- EGR 206 Engineering Economics (3)
- EGR 285 Capstone Project (1)
- EGR 299 Supervised Study in Engineering (1)
- ELE 113 Electricity I (3)
- IND 101 Quality Assurance Technology I (3)
- IND 137 Team Concepts & Problem Solving (3)
- IND 190 Coordinated Internship (2)
- IND 290 Coordinated Internship (2)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- MEC 113 Material & Processes of Industry (3)
- PHY 131 Applied Physics I (3)
- SDV 108 College Survival Skills (1)

Technical Electives (12 credits)
See engineering advisor for approved sequence.

Minimum required for degree: 69 Credits

Sample Schedule
General Engineering Technologies

FIRST YEAR

Fall Semester
- ENG 111 College Composition I 3
- ELE 113 Electricity I 3
- EGR 120 Introduction to Engineering 2
- ITE 115 Intro. to Computer Applications & Concepts 3
- MTH 163 Pre-Calculus I 3
- SDV 108 College Survival Skills 1

Total Semester Hours: 15

Spring Semester
- EGR 206 Engineering Economics 3
- DRF 200 Survey of Computer Aided Drafting 3
- ENG 112 College Composition II 3
- HLT 100 First Aid and Cardiopulmonary Resuscitation 3
- MEC 113 Materials and Processes of Industry 3
- CST 110 Introduction to Communication 3

Total Semester Hours: 18

SECOND YEAR

Fall Semester
- ECO 201 Principles of Macroeconomics [or ECO 202] 3
- IND 101 Quality Assurance Technology I 3
- IND 190 Coordinated Internship 2
- DRF 226 Computer Aided Machining 3
- Social Science Elective 3
- Elective 4

Total Semester Hours: 18

Spring Semester
- EGR 285 Capstone Project 1
- IND 137 Team Concepts & Problem Solving 3
- IND 290 Coordinated Internship 2
- PHY 131 Applied Physics I 3
- Electives 8
- EGR 299 Supervised Study in Engineering 1

Total Semester Hours: 18

Total Semester Hours: 69

Health Technology Nursing Major

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: The nursing major prepares selected students to qualify as practitioners of technical nursing in a variety of health service facilities. After successful completion of the program, students will be eligible for the National Council Licensure Exam-Registered Nurse (NCLEX-RN) in the Commonwealth of Virginia.

Program Learning Outcomes: Graduates of the program will have the knowledge and skills to practice as a graduate nurse and be eligible to take the National Council Licensure Examination for Registered Nurses. A graduate of the program will have demonstrated mastery of generic and specific nursing skills prior to graduation. Skill attainment is assured through regular, valid and reliable comprehensive assessment.

Special Accreditation Status: The program is approved by the Virginia Board of Nursing and accredited by the National League for Nursing Accrediting Commission (NLNAC).

NCLEX-RN Pass Rates for PHCC, State and National last 5 years:

<table>
<thead>
<tr>
<th>Year</th>
<th>PHCC Pass Rate</th>
<th>State Pass Rate</th>
<th>National Pass Rate</th>
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<tr>
<td>2012</td>
<td>92.11%</td>
<td>90.43%</td>
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<tr>
<td>2011</td>
<td>86.96%</td>
<td>89.5%</td>
<td>89.32%</td>
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<tr>
<td>2010</td>
<td>77.78%</td>
<td>86.26%</td>
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<td>2009</td>
<td>80.65%</td>
<td>87.33%</td>
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<tr>
<td>2008</td>
<td>87.23%</td>
<td>84.97%</td>
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</tbody>
</table>

Occupational Objectives: Employment opportunities for the registered nurse include staff positions in hospitals, long term care facilities, rehabilitation centers, health departments, physicians’ offices, clinics, day care centers, industry, and home health care agencies. They also work in correctional facilities, schools, summer camps, and with the military.

Admission Procedure: Applications to the nursing program are processed twice a year during specified advertised application periods. At the end of the advertised application period, completed applications with required supporting documents, will be reviewed and considered. Admission testing will be offered to students meeting all admission requirements. Students who meet criteria, meaning score within the state regulation (45th percentile ranking) will be given priority.

NOTE: When admission must be limited because the number of qualified applicants exceeds available space, admission to the program will be given to applicants who scored at or above the 45th percentile ranking, and are also residents of the college service area. If seats are still available applicants who scored at or above the 45th percentile ranking, who live outside of the college service area will be offered admission starting with the higher percentile ranking, until all seats are filled.

Applicants who are not accepted will be eligible to reapply at the next application period, at which time applicants meeting admission requirements will be allowed to repeat the admission
test, and the most recent scores will be used for admission consideration.

Applicants are responsible for making certain that all application materials are on file in the nursing department. The materials needed are:
1. The completed nursing application.
2. Official transcripts of all secondary school work and all prior college work from colleges other than PHCC.

Admission Requirements: The applicant must meet the following requirements for admission to the required nursing clinical courses (NUR 111, 115, 118, 221, 222, 247, 254). Interested students should contact the nursing office for academic advising.

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED.
3. Complete the college placement test. If scores indicate, the applicant will be required to successfully complete developmental courses before submitting a nursing application.
4. Complete one unit of algebra (if college placement scores indicate content was not retained the course(s) will have to be repeated to included modules 1-6). Students are also required to have two units of high school college prep level science which includes Biology and Chemistry, with no grade below a “C”. Deficiencies can be made up through approved developmental or college level courses. Deficiencies must be completed before submitting an application.
5. A cumulative college grade point average of 2.5 or better in all related and general education requirements completed before admission into the nursing program courses.
6. After meeting the above criteria, submit an Application for the Associate Degree Nursing program, during the specified advertised application period, along with required paperwork, i.e. high school transcripts, college transcripts, etc. during the application period.
7. Pre-RN Admission Examination: The Health Education Systems, Inc. (HESI) test or equivalent is the final step in the admission process. Once you have met the above educational criteria and your application file has been approved, you will be scheduled for this test. Applicants must have satisfactory scores in reading, vocabulary, chemistry and mathematics (45th percentile ranking).

Because the nursing program addresses the educational needs of students with a variety of experiences and prior education, a limited number of entering class positions may be designated for experienced Licensed Practical Nurses that meet the educational criteria and your application file has been approved. The job generally requires standing and walking for extensive periods of time. The registered nurse should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the clinical phase, the prospective student is provided with a Nursing Program Physical Examination form that must be completed by a physician prior to enrolling in nursing classes. Upon admission, all students are required to undergo mandatory drug screening and a criminal background check. Students must have a negative drug screen in order to begin clinical nursing courses.

Please note that the Virginia State Board of Nursing may refuse to admit a candidate to any examination and refuse to issue a license or certificate to any applicant who has been convicted of any felony or any misdemeanor involving moral turpitude. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the Associate Degree Nursing program. Any charges or costs to secure the evaluation will be the responsibility of the student (estimated cost $50).

The National League for Nursing Accreditation Council is a resource for information regarding the required tuition, fees and length of nursing programs. They can be contacted at:

National League for Nursing Accrediting Commission
3343 Peachtree Road NE, Suite 500
Atlanta, Georgia 30326
1-404-975-5000

Readmission Requirements: Any student wishing to re-enroll in the nursing clinical courses must have at least a 2.5 cumulative grade point average at PHCC to be considered. A student who wishes to re-enter the nursing curriculum must follow the procedure outlined in the Nursing Student Handbook. The student may be required to enroll in and satisfactorily complete specific courses before readmission. Additional data may be required. The nursing faculty will consider each student’s application for readmission and the decision to readmit will be based on additional data, prior performance in the nursing program and space availability. Students who fail a nursing course or withdraw for any reason from the Nursing Program may be readmitted to the nursing program only once. All re-admissions are at the discretion of nursing faculty.

Advanced Placement: Licensed Practical Nurses that meet the admission requirements may be eligible for advanced placement. To be considered for advanced placement, an LPN must have:
1. Graduated from an approved practical nursing school.
2. Passed the LPN licensing exam and hold a current license.
LPN’s receiving advanced placement will be required to take NUR 115, LPN Transition, (3 credits). Please contact the nursing office for additional information.

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses. Approximate costs include:

- Uniforms: $230
- Physical Examination: $100
- Books: $700-$1200
- Graduation Pin: cost depends on price of gold or silver
AHA BCLS CPR certification $127
Drug Screen $40-50
Criminal Background Checks $50-$75
Application for Licensure fees $390
Transportation to clinical agencies, seminars, etc. as required

Transfer of Nursing Credit: Students seeking to transfer credit received from nursing courses at other institutions will be considered on an individual basis by the nursing faculty. The student may be asked to provide course descriptions, course syllabi, standardized test scores, and selected data from the course instructor in order to determine placement in the nursing program, subject to availability of space. Since there frequently are differences among nursing programs, students wishing to transfer should be aware that there might be an interruption in program progression.

Curriculum Requirements: In addition to formal lectures and laboratory exercises, selected experiences within driving distance of the college will be scheduled at day, evening and/or weekend times, depending on availability of facilities. Field trips, at an additional cost, may be included.

Clinical nursing students expected to complete end of the semester testing. The results of the end of semester testing will be counted as a percentage of the final course grade. Students must pass the clinical nursing courses to continue in the program. Grading guidelines are specifically addressed in the course syllabi, and Nursing Student Handbook issued upon program admission.

The student must complete all general education and related courses either before or concurrent with nursing program requirements. To remain in the program, a student must have a “C” or above in all nursing courses. Additionally, a grade of “C” or above in all semesters of biology, psychology and health courses is required to continue in the nursing program.

Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing. In order to graduate, students must also be able to demonstrate the college’s specified computer competency requirements.

General Education Requirements (18 Credits):
ENG 111-112 College Composition I-II (6)
HLT 230 Principles of Nutrition and Human Development (3)
SOC 200 Principles of Sociology (3)
[or PSY 200 Principles of Psychology (3)]
PSY 230 Developmental Psychology (3)
CST 110 Introduction to Communication (3)

Program Requirements (51 Credits):
BIO 231-232 Human Anatomy and Physiology I-II (8)
NUR 111 Nursing I (7)
NUR 118 First Level Nursing II (8)
NUR 135 Drug Dosage Calculations (2)
NUR 247 Psychiatric/Mental Health Nursing (3)
NUR 221-222 Second Level Nursing Principles & Concepts I-II (19)
NUR 254 Dimensions of Professional Nursing (2)
SDV 101* Orientation to Careers (1)
SDV 108 College Survival Skills (1)

Minimum requirement for degree: 69 Credits

*Corequisite with NUR 111

Sample Schedule
Nursing

FIRST YEAR

First Semester
BIO 231 Human Anatomy and Physiology I 4
NUR 135 Drug Dosage Calculations 2
NUR 111 Nursing I 7
PSY 230 Developmental Psychology 3
SDV 108 College Survival Skills 1
SDV 101 Orientation to Careers 1 18

Second Semester
BIO 232 Human Anatomy and Physiology II 4
NUR 247 Psychiatric/Mental Health Nursing 3
NUR 118 First Level Nursing II 8
SOC 200 Principles of Sociology [or PSY 200] 3 18

SECOND YEAR

Third Semester
ENG 111 College Composition I 3
HLT 230 Principles of Nutrition & Human Development 3
NUR 221 Second Level Nursing Principles & Concepts I 9
CST 110 Introduction to Communication 3 18

Fourth Semester
ENG 112 College Composition II 3
NUR 222 Second Level Nursing Principles & Concepts II 10
NUR 254 Dimensions of Professional Nursing 2 15

Total Semester Hours: 69
Industrial Electronics Technology

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: The focus of this program is to provide highly skilled industrial technicians for a regional workforce. Qualified electronic technicians are needed in ever increasing numbers to assist local business and industry in taking full advantage of computerized systems, automation, and controls. The manufacturing environment of the 21st century integrates several advanced technologies including sensors, transducers, automated controls, programmable logic controls, motor control circuits, motor drives, pneumatics, microprocessors, computer hardware, and software applications. A strong educational background is required to install, maintain, troubleshoot, and repair such advanced systems.

Program Learning Outcomes: The focus of this program is to provide highly skilled industrial technicians. Today's complex, computerized/automated industries demand technicians with knowledge and skills to maintain complex electrical/electronic systems and equipment. Training in the following areas and technologies are included in the Industrial Electronics Technology Program: Sensors and Transducers, Automated Controls, Programmable Logic Controllers (PLCs) Motor Control Circuits, AC and DC Motor Drives, Pneumatics, Microprocessors and Computer Programming, Computer Hardware and Software Applications, Instrumentation, Electronic Data Communication, Systems Troubleshooting and Preventive Maintenance.

Occupational Objectives: Employment opportunities for graduates of this program include positions as electronics technician, industrial electronics technician or service technician. Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete all general education, program and elective requirements to be awarded the Associate of Applied Science in Industrial Electronics Technology.

Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

General Education Requirements (14 Credits):
ENG 111 College Composition I (3)
MTH 120 Introduction to Mathematics (3)
CST 110 Introduction to Communication (3)
Social Science Elective (3)
Wellness Health, P. E. or recreation courses which promote physical and emotional well-being (2)

Program Requirements (52 Credits):
ELE 216 Industrial Electricity (3)
ELE 225 Electrical Control Systems (4)
ELE 143 Programmable Controllers (3)

Sample Schedule
Industrial Electronics Technology

FIRST YEAR
Fall Semester
ENG 111 College Composition I 3
ETR 113 D.C. and A.C. Fundamentals I 4
ETR 143 Devices and Applications I 3
ETR 282 Digital Systems I 3
MTH 120 Introduction to Mathematics 3
SDV 108 College Survival Skills 1
Total Semester Hours: 17

Spring Semester
ETR 114 D.C. and A.C. Fundamentals II 4
ETR 144 Devices and Applications II 4
ETR 283 Digital Systems II 3
ITE 115 Intro. to Computer Applications & Concepts 3
Wellness Elective 2
Total Semester Hours: 16

SECOND YEAR
Fall Semester
ETR 250 Solid State Circuits 4
ETR 267 Microprocessor Applications I 3
ELE 143 Programmable Controllers I 3
ELE 216 Industrial Electricity 3
Social Science Elective 3
CST 110 Introduction to Communication 3
Total Semester Hours: 19

Spring Semester
ELE 144 Programmable Controllers II (pending approval) 3
ELE 225 Electrical Control Systems 4
ETR 100 Electronic Problem Solving Lab 1
ETR 151 Electronic Circuits and Troubleshooting 2
INS 210 Principles of Instrumentation 3
ETR 299 Supervised Study in Industrial Electronics 1
Total Semester Hours: 14

Minimum required for degree: 66 Credits
Information Systems Technology

**Award:** Associate of Applied Science  
**Length:** 4 Semesters

**Purpose:** Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will learn to use a wide array of business-oriented computer software and choose specific courses to meet career goals. The program provides a base of general skills in information systems and gives the individual the option to specialize in a particular area or complete the degree with a more generalist tract. The program provides base skills in software applications, basic PC troubleshooting and repair, networking terminology, programming concepts, and Internet resources. Upon completion of the program, the student will be prepared for immediate employment.

**Occupational Objectives:** Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as PC support technician, software specialist, helpdesk technician, or PC advisor. Primary tasks and functions graduates will be able to perform include management of tasks, software operations, and basic problem solving.

**Potential Certification:** A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) – Access, Excel
- CompTIA - A+, Network+
- Certiport, Inc. - IC3

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

**Curriculum Requirements:** Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

**Program Learning Outcomes:** A student will be able to:

- Demonstrate the use of logical thinking to make rational decisions in solving computer-related problems and issues.
- Demonstrate a working knowledge of computer programming, networking, hardware, and software.

**General Education Requirements (20-21 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>[or MTH 163 Precalculus I (3)]</td>
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<tr>
<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY]</td>
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</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO]</td>
<td>3</td>
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</tr>
<tr>
<td>Wellness Health, P.E., or recreation courses which promote physical and emotional well-being</td>
<td>2</td>
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**Program Requirements (48 Credits):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITD 112</td>
<td>Designing Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
</tr>
<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>ITE 150</td>
<td>Desktop Database Software</td>
<td>3</td>
</tr>
<tr>
<td>ITE 290</td>
<td>Coordinated Internship</td>
<td>3</td>
</tr>
<tr>
<td>[or ITE 297 Cooperative Education (3)]</td>
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<tr>
<td>ITE 299</td>
<td>Supervised Study in IST</td>
<td>1</td>
</tr>
<tr>
<td>ITN 101</td>
<td>Introduction to Network Concepts</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITN 107</td>
<td>Personal Computer Hardware &amp; Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>ITP 110</td>
<td>Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ITP 160</td>
<td>Intro. to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
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<td>SDV 101</td>
<td>Orientation to Information Systems</td>
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</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
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</tr>
</tbody>
</table>

**Minimum required for degree: 68-69 Credits**
## Sample Schedule

### Information Systems Technology

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>CSC 110</td>
<td>Introduction to Computing</td>
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</tr>
<tr>
<td></td>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science Elective</td>
<td></td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I [or MTH 163]</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SDV 101</td>
<td>Orientation to Information Systems</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SDV 108</td>
<td>College Survival Skills</td>
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<tr>
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<tr>
<td>Spring</td>
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<td>College Composition II</td>
<td>3</td>
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<td></td>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>3</td>
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<tr>
<td></td>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITN 106</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITE 119</td>
<td>Information Literacy</td>
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</tr>
<tr>
<td></td>
<td>CST 110</td>
<td>Intro. to Communication</td>
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#### SECOND YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
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<tr>
<td>Fall</td>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITE 150</td>
<td>Desktop Database Software</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ITN 106</td>
<td>Introduction to Network Concepts</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MKT 260</td>
<td>Customer Service Management</td>
<td>3</td>
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<tr>
<td></td>
<td>Social Science Elective</td>
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<td>3</td>
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<tr>
<td></td>
<td>Wellness Elective</td>
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<tr>
<td></td>
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<td>17</td>
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<tr>
<td>Spring</td>
<td>ITD 112</td>
<td>Designing Web Page Graphics</td>
<td>3</td>
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<tr>
<td></td>
<td>ITE 290</td>
<td>Coordinated Internship [or ITE 297]</td>
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<tr>
<td></td>
<td>ITE 299</td>
<td>Supervised Study in IST</td>
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<tr>
<td></td>
<td>ITN 107</td>
<td>Personal Computer Hardware &amp; Troubleshooting</td>
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<td>Introduction to Game Design &amp; Development</td>
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</tbody>
</table>

**Total Semester Hours: 68-69**

### Information Systems Technology

#### Accounting Information Systems Specialization

| Award:          | Associate of Applied Science                      |
| Length:         | 4 Semesters                                      |

**Purpose:** Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided with technical knowledge and skill in various areas of computerized accounting systems and related information technology topics. This program provides skills to analyze financial reports and solve problems to meet functional objectives of the business related to accounting systems. Upon completion of the program, the student will be prepared for immediate employment.

**Occupational Objectives:** Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as accounting systems technician, accounts receivable/accounts payable technician, payroll technician, and other positions related to information technology and accounting systems. Primary tasks and functions graduates will be able to perform include the ability to utilize accounting systems in the operation of a business, analyze financial reports, and maintain computerized accounting systems.

**Potential Certification:** A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:

- Microsoft Office Specialist (MOS) - Excel
- Certiport, Inc. - IC3

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

**Curriculum Requirements:** Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

**Program Learning Outcomes:** A student will be able to:

- Demonstrate effective verbal and written communication skills.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Demonstrate the use of logical thinking to make rational decisions in solving computer-related problems and issues.
- Demonstrate a working knowledge of computer networking, hardware, and software.
- Demonstrate the use of accounting software to generate financial statements and reports to solve business-related problems.
- Apply the principles of financial accounting, managerial accounting, and payroll accounting.

**General Education Requirements (20-21 Credits):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
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<tr>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>[or MTH 163]</td>
<td>Precalculus I (3)</td>
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<tr>
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<td></td>
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</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)</td>
<td></td>
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</tr>
<tr>
<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being (2)</td>
<td></td>
</tr>
</tbody>
</table>

**Program Requirements (48 Credits):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 124</td>
<td>Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACC 215</td>
<td>Computerized Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
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<td>ITE 119</td>
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<td>ITE 140</td>
<td>Spreadsheet Software</td>
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<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITT 110</td>
<td>Intro. to Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>1</td>
</tr>
</tbody>
</table>

Minimum required for degree: 68-69 Credits

**Sample Schedule**

**Accounting Information Systems**

**FIRST YEAR**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>[or MTH 163]</td>
<td>Precalculus I (3)</td>
<td></td>
</tr>
<tr>
<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being (2)</td>
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</tr>
</tbody>
</table>

**Spring Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ITE 119</td>
<td>Information Literacy</td>
<td>3</td>
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<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>3</td>
</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>IST 110</td>
<td>Intro. to Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>MTH 163</td>
<td>Precalculus I</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)</td>
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<tr>
<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)</td>
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<tr>
<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being (2)</td>
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**SECOND YEAR**

**Fall Semester**

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ACC 215</td>
<td>Computerized Accounting</td>
<td>3</td>
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<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3-4)</td>
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<tr>
<td>Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)</td>
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<td></td>
</tr>
<tr>
<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being (2)</td>
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**Spring Semester**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 124</td>
<td>Payroll Accounting</td>
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<tr>
<td>ITD 112</td>
<td>Designing Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ITE 297</td>
<td>Cooperative Education [3]</td>
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<tr>
<td>ITE 299</td>
<td>Supervised Study in IST</td>
<td>1</td>
</tr>
<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>ITT 110</td>
<td>Intro. to Game Design &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>ITT 160</td>
<td>Introduction to Game Design &amp; Development</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Hours: 68-69**
Information Systems Technology
Game Design and Development Specialization

Award:  Associate of Applied Science
Length:  4 Semesters

Purpose: Individuals who are seeking their first employment or those who wish to qualify for promotion in a present position or to another field, including self-employment, may benefit from this program. Students will be provided a broad background in game and simulation development, with practical applications in creative arts, audio/video technology, creative writing, modeling, design, and programming. Upon completion of the program, the student will be prepared for immediate employment.

Occupational Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as game and simulation technician, art/animation specialist, game/simulation designer, testers, programmers, and audio/video specialist. Primary tasks and functions graduates will be able to perform include the design and development of programs related to game and simulation in such industries as health care, forensics, education, entertainment, engineering, and government.

Potential Certification: A student may elect to take a certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
- Microsoft Certified Solution Developer (MCSD) – Visual Basic, C++
- Certiport, Inc. - IC3

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

Curriculum Requirements: Students must successfully complete all of the general education and program requirements listed below to be awarded this degree.

Program Learning Outcomes: A student will be able to:
- Demonstrate effective verbal and written communication skills.
- Apply mathematical and scientific reasoning skills to formulate and solve problems.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate proficiency in information literacy.
- Demonstrate ability to reason critically and problem-solve.
- Demonstrate proficiency in oral communication methods.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Demonstrate the use of logical thinking to make rational decisions in solving computer-related problems and issues.
- Demonstrate a working knowledge of various computer programming languages.
- Work as a part of a team to develop and design software applications and graphics related to the game and simulation industry.
- Demonstrate principles of quality customer service.

General Education Requirements (20-21 Credits):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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</tr>
<tr>
<td>ENG 112</td>
<td>College Composition II</td>
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<tr>
<td>MTH 151</td>
<td>Mathematics for the Liberal Arts I</td>
<td>3</td>
</tr>
<tr>
<td>or MTH 163</td>
<td>Precalculus I</td>
<td>3</td>
</tr>
<tr>
<td>Science Elective</td>
<td>[BIO, CHM, ENV, GOL, NAS, PHY]</td>
<td>3-4</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>Social Science Elective</td>
<td>[HIS, SOC, PSY, PLS, ECO, GEO]</td>
<td>3</td>
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<tr>
<td>Wellness</td>
<td>Health, P.E., or recreation courses which promote physical and emotional well-being</td>
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Program Requirements (45 Credits):

<table>
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<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 121</td>
<td>Drawing I</td>
<td>3</td>
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<tr>
<td>CAD 238</td>
<td>Computer Aided Modeling 1</td>
<td>3</td>
</tr>
<tr>
<td>CAD 241</td>
<td>Parametric Solid Modeling 1</td>
<td>3</td>
</tr>
<tr>
<td>CSC 110</td>
<td>Introduction to Computing</td>
<td>3</td>
</tr>
<tr>
<td>CSC 201</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>ITD 110</td>
<td>Web Page Design I</td>
<td>3</td>
</tr>
<tr>
<td>ITD 112</td>
<td>Designing Web Page Graphics</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>[or ITE 119 Information Literacy (3)]</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ITE 290</td>
<td>Coordinated Internship</td>
<td>3</td>
</tr>
<tr>
<td>[or ITE 297 Cooperative Education (3)]</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ITE 299</td>
<td>Supervised Study in IST</td>
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</tr>
<tr>
<td>ITN 106</td>
<td>Microcomputer Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ITP 110</td>
<td>Visual Basic Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ITP 120</td>
<td>Java Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ITP 132</td>
<td>C++ Programming I</td>
<td>3</td>
</tr>
<tr>
<td>ITP 160</td>
<td>Intro. to Game Design and Development</td>
<td>3</td>
</tr>
<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>[or ACC 211 or BUS 165(3)]</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>1</td>
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</tbody>
</table>

Minimum required for degree: 65-66 Credits
Sample Schedule
Game Design and Development

FIRST YEAR

Fall Semester
CAD 238 Computer Aided Modeling 1 3
CSC 110 Introduction to Computing 3
ENG 111 College Composition I 3
ITE 115 Intro. to Computer Applications & Concepts 3
MTH 151 Mathematics for the Liberal Arts I 3
SDV 108 College Survival Skills 1

Spring Semester
CAD 241 Parametric Solid Modeling I 3
ENG 112 College Composition II 3
ITN 106 Microcomputer Operating Systems 3
ITP 110 Visual Basic Programming I 3
ITP 160 Introduction to Game Design & Development 3
CST 110 Intro. to Communication 3

SECOND YEAR

Fall Semester
Art 121 Drawing I 3
ITD 110 Web Page Design I 3
ITP 132 C++ Programming 3
MKT 260 Customer Service Management 3
Science Elective 3-4
Science Elective 15-16

Spring Semester
SDV 101 Orientation to Information Systems 1
ITD 112 Designing Web Page Graphics 3
ITE 290 Coordinated Internship [or ITE 297] 3
ITE 299 Supervised Study in IST 1
ITP 120 Java Programming I 3
Social Science Elective 3
Wellness Elective 2

Total Semester Hours: 65-66
• Demonstrate a working knowledge of computer networking, hardware, and software.
• Demonstrate web design skills to create web pages.
• Use web development and database skills to query, store, and retrieve data.
• Design functional e-commerce web sites using an appropriate computer language.

**General Education Requirements (20-21 Credits):**
- ENG 111 College Composition I (3)
- ENG 112 College Composition II (3)
- MTH 151 Mathematics for the Liberal Arts I (3)  
  [or MTH 163 Precalculus I (3)]
- Science Elective [BIO, CHM, ENV, GOL, NAS, PHY] (3)
- CST 110 Introduction to Communication (3)
- Social Science Elective [HIS, SOC, PSY, PLS, ECO, GEO] (3)
- Wellness Health, P.E., or recreation courses which promote physical and emotional well-being (2)

**Program Requirements (48 Credits):**
- CSC 110 Introduction to Computing (3)
- ITD 110 Web Page Design I (3)
- ITD 112 Designing Web Page Graphics (3)
- ITD 210 Web Page Design II (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- ITE 119 Information Literacy (3)
- ITE 130 Introduction to Internet Services (3)
- ITE 150 Desktop Database Software (3)
- ITE 290 Coordinated Internship (3)  
  [or ITE 297 Cooperative Education (3)]
- ITE 299 Supervised Study in IST (1)
- ITN 101 Introduction to Network Concepts (3)
- ITN 106 Microcomputer Operating Systems (3)
- ITP 120 Java Programming I (3)
- ITP 136 C# Programming (3)
- ITP 160 Intro. to Game Design and Development (3)
- MKT 260 Customer Service Management (3)
- SDV 101 Orientation to Information Systems (1)
- SDV 108 College Survival Skills (1)

Minimum required for degree: 68-69 Credits

**Sample Schedule**

**Internet Services**

**FIRST YEAR**

**Fall Semester**
- CSC 110 Introduction to Computing 3
- ENG 111 English Composition I 3
- ITE 115 Intro. to Computer Applications & Concepts 3
- MTH 151 Mathematics for the Liberal Arts I [or MTH 163] 3
- Science Elective 3-4
- SDV 101 Orientation to Information Systems 1
- SDV 108 College Survival Skills 1

**Spring Semester**
- ENG 112 College Composition II 3
- ITE 130 Introduction to Internet Services 3
- ITN 101 Introduction to Network Concepts 3
- ITP 160 Introduction to Game Design & Development 3
- CST 110 Intro. to Communication 3

**SECOND YEAR**

**Fall Semester**
- ITE 150 Desktop Database Software 3
- ITD 110 Web Page Design I 3
- ITP 136 C# Programming 3
- MKT 260 Customer Service Management 3
- Social Science Elective 3
- Wellness Elective 2

**Spring Semester**
- ITP 120 Java Programming I 3
- SDV 101 Orientation to Information Systems (1) 1
- ITE 119 Information Literacy 3
- ITE 290 Coordinated Internship [or ITE 297] 3
- ITP 120 Java Programming I 3

Total Semester Hours: 68-69
Legal Assisting

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: The curriculum provides knowledge and skills leading to immediate employment in the field of paraprofessionals in the legal setting.

Program Learning Outcomes: The program prepares graduates to work as paraprofessionals in a variety of legal, business and industry, and governmental environments that require legal knowledge and specialized skills.

Occupational Objectives: A graduate of this program may work as a paralegal or legal assistant in law offices, law enforcement agencies, court systems, municipal offices, corporate office - contract/legal department, banks, real estate offices, insurance agencies, and contracting agencies.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses.

Program Requirements: Developmental requirements must be satisfied prior to enrolling in LGL 115.

Curriculum Requirements: The student must satisfactorily complete requirements listed below to receive this degree. Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

General Education Requirements (20 Credits):
ENG 111-112 College Composition I-II (6)
HLT-PED Health/Physical Education Elective(s) (2)
MTH 120 Introduction to Mathematics (3)
PLS 211 U. S. Government I (3)
CST 110 Introduction to Communication (3)
Social Science Elective (3)

Program Requirements (48 Credits):
ADJ 130 Introduction to Criminal Law (3)
BUS 125 Applied Business Mathematics (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
LGL 110 Introduction to Law and the Legal Assistant (3)
LGL 115 Real Estate Law for Legal Assistants (3)
LGL 117 Family Law (3)
LGL 125 Legal Research (3)
LGL 126 Legal Writing (3)
LGL 200 Ethics for the Legal Assistant (1)
LGL 215 Torts (3)
LGL 219 Basics of Litigation Support (3)
LGL 225 Estate Planning and Probate (3)
LGL 226 Real Estate Abstracting (3)
LGL 230 Legal Transactions (3)

LGL 290 Coordinated Internship (2)
LGL 299 Supervised Study in Legal Assisting (1)
SDV 101 Orientation to Legal Assisting (1)
SDV 108 College Survival Skills (1)

ELECTIVES (3 CREDITS)
[Selected from ADJ, AST, IST, or advisor approval]

Minimum required for degree: 68 Credits

Sample Schedule
Legal Assisting

FIRST YEAR

Fall Semester
ENG 111          College Composition I                 3
ITE 115          Intro. to Computer Applications & Concepts 3
LGL 110          Introduction to Law and the Legal Assistant 3
LGL 125          Legal Research                           3
LGL 200          Ethics for the Legal Assistant            1
MTH 120          Introduction to Mathematics              3
SDV 101          Introduction to Legal Assisting           1
SDV 108          College Survival Skills                  1
18

Spring Semester
BUS 125          Applied Business Mathematics            3
ENG 112          College Composition II                   3
LGL 126          Legal Writing                            3
LGL 215          Torts                                   3
CST 110          Introduction to Communication            3
Social Science Elective (3)
18

SECOND YEAR

Fall Semester
HLT-PED          Health/Physical Education Elective(s)     2
LGL 115          Real Estate Law for Legal Assistants      3
LGL 117          Family Law                               3
LGL 230          Legal Transactions                       3
PLS 211          U.S. Government I                        3
Elective         3
17

Spring Semester
ADJ 130          Introduction to Criminal Law             3
LGL 219          Basics of Litigation Support              3
LGL 225          Estate Planning and Probate               3
LGL 226          Real Estate Abstracting                    3
LGL 290          Coordinated Internship                   2
LGL 299          Supervised Study in Legal Assisting        1
15

Total Semester Hours: 68
Technical Studies
Agribusiness

Award: Associate of Applied Science
Length: 4 Semesters

Purpose: To provide a response to current and anticipated workforce shortage in the agribusiness industry. Individuals who are interested in owning or seeking employment in managing an agribusiness, farm, nursery, greenhouse, or other related fields may benefit from this program. The Agribusiness program will prepare the student to enter the rapidly changing areas of agricultural business and the challenges that are currently facing today’s agricultural industry. Agriculture is facing a period of change trying to compete in today’s world markets and to provide food for the growing world’s populations.

Program Learning Outcomes: Graduates of the Agribusiness Program will be prepared to meet today’s rapidly changing Agricultural Industry by studying the operation of both plant and animal enterprises. A student will be able to:
• Demonstrate knowledge of agricultural finance and how it affects specific agricultural operations.
• Demonstrate human resources management to effectively operate an agricultural enterprise and the associated service industries.
• Demonstrate skills needed to market agriculture commodities and services.
• Demonstrate knowledge of ag chemical uses and how to effectively use them with minimal effects on the environment.
• Demonstrate knowledge of agriculture products used in the production of biofuels and other energy resources.
• Demonstrate effective critical thinking skills to solve problems facing agricultural industry.
• Demonstrate proficiency in the use of oral communication, technology, math and reasoning skills.
• Apply a specialized area of agricultural production that meets industry and student needs.
• Demonstrate acceptable ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.

Occupational Objectives: Careers are available for students interested in farm management, nurseries, greenhouse, biofuels, and the farm service industry. Graduates will have prepared themselves to compete for more than 50,000 Agricultural jobs that have been estimated to be available in the period between 2005 and 2010 by the Department of Agriculture. Agribusiness Degree graduates are in great demand receiving salaries equal to or greater than those with higher degrees and our graduates will be able to meet a portion of that demand.

General Education Requirements (17 Credits):
ENG 111 College Composition I (3)
[or ENG 131 Technical Writing (3)]
HUM 165 Controversial Issues in Contemporary American Culture (3)
ECO 201 Principles of Macroeconomics (3)
SOC 200 Principles of Sociology (3)
[or PSY 200 Principles of Psychology (3)]

Program Requirements (49 Credits): AGR 141 Introduction to Animal Science and Technology (4)
AGR 142 Introduction to Plant Science and Technology (3)
AGR 143 Introduction to Agribusiness and Financial Management (3)
AGR 144 Agricultural Human Resource Management (3)
AGR 205 Soil Fertility and Management (3)
AGR 231 Agribusiness Marketing Risk Management, and Entrepreneurship (3)
AGR 232 Professional Selling for Agribusiness (3)
AGR 233 Food Production, Safety, Biosecurity, and Quality Control (3)
AGR 234 Chemical Applications and Pest Management (3)
AGR 297 Cooperative Education (6)
AGR 299 Supervised Study in AGR (1)
AGR Electives (6)
ITE 115 Intro. to Computer Applications & Concepts (3)
SDV 101 Orientation to Agribusiness (1)
SDV 108 College Survival Skills (1)
Technical Elective [choose from ACC 211, CAD 200, or ITD 110] (3)

Minimum required for degree: 66 Credits
### Sample Schedule

#### Agribusiness

**FIRST YEAR**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>AGR 141</td>
<td>Intr. to Animal Science and Technology</td>
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</tr>
<tr>
<td>AGR 142</td>
<td>Intro. to Plant Science and Technology</td>
<td>3</td>
</tr>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>3</td>
</tr>
<tr>
<td>SDV 101</td>
<td>Orientation to Agribusiness</td>
<td>1</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>1</td>
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</table>

**Spring Semester**

<table>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AGR 144</td>
<td>Agricultural Human Resource Management</td>
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<tr>
<td>AGR 233</td>
<td>Food Production, Safety, Biosecurity, and Quality Control</td>
<td>3</td>
</tr>
<tr>
<td>AGR 232</td>
<td>Professional Selling for Agribusiness</td>
<td>3</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>HUM 165</td>
<td>Controversial Issues in Contemporary American Culture</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**SECOND YEAR**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR 143</td>
<td>Introduction to Agribusiness and Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>AGR 205</td>
<td>Soil Fertility and Management</td>
<td>3</td>
</tr>
<tr>
<td>AGR 197</td>
<td>Cooperative Education</td>
<td>3</td>
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<tr>
<td>PED/HLT</td>
<td>Elective</td>
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<tr>
<td>SOC 200</td>
<td>Principles of Sociology</td>
<td>3</td>
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<tr>
<td>Technical Elective</td>
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**Spring Semester**

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tr>
<td>AGR 231</td>
<td>Agribusiness Marketing Risk Management, and Entrepreneurship</td>
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<td>AGR 234</td>
<td>Chemical Applications and Pest Management</td>
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<td>AGR 199</td>
<td>Supervised Study in AGR</td>
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<td>AGR 297</td>
<td>Cooperative Education</td>
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<td>AGR Electives</td>
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**Total Semester Hours:** 66

### Technical Studies

#### Motorsports Technology

**Award:** Associate of Applied Science  
**Length:** 4 Semesters

**Purpose:** To provide a rapid response to an anticipated workforce shortage for the motorsports industry within the mid-Atlantic region. The student will be engaged in mastering the academic and technical skill sets required for employment.

**Program Learning Outcomes:** A student will be able to:

- Demonstrate knowledge about auto racing and race vehicles, their characteristics, specifications, rules, regulations, systems, current technology, and testing methods.
- Demonstrate critical thinking skills and the ability to apply mathematical and scientific knowledge and reasoning skills in solving technical problems.
- Demonstrate knowledge about components, systems, configuration, classification, terminology, and principles of functioning of high performance engines used in race competitions.
- Demonstrate the ability to assemble, test, and apply corrective methods to resolve technical issues related to maximum power performance of race engines using codes and specifications.
- Demonstrate the knowledge of aerodynamics, stability, and control of race vehicles, and the ability to design, model, and fabricate structures and bodies of race vehicles using blueprints and safety specifications.
- Demonstrate understanding and application of information technology and general business knowledge, and their applicability to the motorsports industry.
- Describe contemporary approaches to management and demonstrate management and marketing skills relevant to the motorsports industry
- Demonstrate effective verbal, oral and written communication skills applicable in a business setting.
- Demonstrate acceptable ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork

**Occupational Objectives:** Employment opportunities for graduates of this program include chassis technician, set-up assistant, crew member, block assembly assistant, engine builder, or engine machine technician in racing environments.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills and/or fundamental Motorsports terminology will complete additional coursework. Students may be required to complete a Motorsports Program Application and interview. Tools for the program are required.
Curriculum Requirements: The student must satisfactorily complete all general education, program and elective requirements to receive this degree. Student must maintain a 2.5 curricular grade point average to stay in program.

Graduation Requirements: In order to meet PHCC graduation requirements, all degree students must satisfactorily complete Virginia Community College System Core Competency testing standards. Core Competency testing is scheduled during a two week assessment period twice each year, once in October and once in March. Please see your program advisor to determine the best time for you to complete the testing.

General Education Requirements (16 Credits):
ENG 111 College Composition I (3)
MTH 103 Applied Technical Mathematics I (3)
[or MTH 151 Math for Liberal Arts I (3)]
PHY 131 Applied Physics I (3)
CST 110 Introduction to Communication (3)
PED/HLT Elective (1)
Social Science Elective (3)

Program Requirements (53 Credits):
ITE 115 Intro. to Computer Applications & Concepts (3)
MTS 126 Motorsports Technology II (3)
MTS 130 Motorsports Structural Technology I (3)
MTS 131 Motorsports Structural Technology II (3)
MTS 132 Motorsports Structural Technology III (3)
MTS 135 Sheet Metal Fabrication (3)
MTS 210 Race Car Setup I (3)
MTS 211 Race Car Setup II (3)
MTS 240 Stock Car Engines II (3)
MTS 250 Engine Machining Processes II (3)
MTS 290 Coordinated Internship (2)
MTS 295 Machining and Welding (3)
MTS 295 Introduction to Pit Stop (2)
MTS 298 Dyno Engine Performance (3)
MTS 299 Supervised Study in Motorsports (1)
SDV 101 Introduction to Motorsports (1)
SDV 108 College Survival Skills (1)

Minimum required for degree: 69 credits

Sample Schedule
Motorsports Technology

FIRST YEAR

Fall Semester
ENG 111 College Composition I 3
MTH 103 Applied Technical Mathematics I 3
MTS 130 Motorsports Structural Technology I 3
MTS 210 Race Car Setup I 3
MTS 295 Machining and Welding 3
SDV 101 Introduction to Motorsports 1
SDV 108 College Survival Skills 1

Spring Semester
CST 110 Introduction to Communication 3
ITE 115 Intro. To Computer Applications & Concepts 3
MTS 131 Motorsports Structural Technology II 3
MTS 132 Motorsports Structural Technology III 3
MTS 135 Sheet Metal Fabrication 3
MTS 211 Race Car Setup II 3

SECOND YEAR

Fall Semester
MTS 126 Motorsports Technology II 3
MTS 140 Stock Car Engines I 3
MTS 150 Engine Machining Process I 4
MTS 195 High Performance Engine Induction Systems 3
PHY 131 Applied Physics I 3

Spring Semester
MTS 240 Stock Car Engines II 3
MTS 250 Engine Machining Process II 3
MTS 290 Coordinated Internship 2
MTS 298 Dyno Engine Performance 3
MTS 295 Introduction to Pit Stop 2
MTS 299 Supervised Study in Motorsports 1
PED/HLT Elective 1
Social Science Elective 3

Total Semester Hours: 69
Certificates

Automotive Technology
Bookkeeping
Clerical Studies
Computer Aided Drafting & Design
Early Childhood Education
General Business
General Education
Heating, Ventilation, Air Conditioning & Refrigeration
Health Sciences
Industrial Welding
Practical Nursing
Therapeutic Massage

Certificate programs can usually be completed in one year of full-time enrollment and offer specific general education along with key skill area courses. Certificate programs are often equal to the first year of a corresponding associate degree.
Automotive Technology

Award: Certificate  
Length: 3 semesters

Purpose: This program has a dual purpose for workforce development of the region. 1) This program provides students basic knowledge and skills for transfer into the PHCC Motorsports Technology program. 2) This program also provides entry level skills and knowledge for employment in Automotive Industry and advanced skills for individuals currently employed in the field.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. (See Automotive Technology Advisor prior to enrollment)

Curriculum Requirements: The student must satisfactorily complete all general education, program and elective requirement listed below to receive a Certificate in Automotive Technology.

Industry Certification: A program graduate will be prepared for the ASE examination and certification.

General Education Requirements (9 Credits):  
ENG 131 Technical Report Writing I (3)  
[or ENG 111 College Composition I (3)]  
MTH 120 Introduction to Mathematics (3)  
ITE 115 Intro. to Computer Applications & Concepts (3)

Program Requirements (39 Credits):
AUT 111 Automotive Engines I (3)  
AUT 121 Automotive Fuel systems I (3)  
AUT 125 Anti-Pollution Systems (3)  
AUT 161-162 Automotive Diagnosis I & II (6)  
AUT 165 Auto Diagnosis and Tune-Up (2)  
AUT 190 Coordinated Internship (1)  
AUT 215 Emissions Systems Diagnosis and Repair(2)  
AUT 236 Automotive Climate Control (4)  
AUT 241 Automotive Electricity I (3)  
AUT 245 Automotive Electronics (3)  
AUT 265 Automotive Braking System (3)  
AUT 266 Auto Alignment, Suspension & Steering (3)  
AUT 275 Shop Management (2)  
SDV 108 College Survival Skills (1)

Minimum required for certificate: 48 credits

Sample Schedule
Automotive Technology

First Semester
ENG 131 Technical Report Writing I (3)  
[or ENG 111]  
MTH 120 Introduction to Mathematics (3)  
AUT 111 Automotive Engines I (3)  
AUT 121 Automotive Fuel Systems I (3)  
AUT 265 Automotive Braking Systems (3)  
SDV 108 College Survival Skills (1)  
16

Second Semester
AUT 125 Anti-Pollution Systems (3)  
AUT 161 Automotive Diagnosis I (3)  
AUT 215 Emission Systems Diagnosis & Repair (2)  
AUT 236 Automotive Climate Control (4)  
AUT 241 Automotive Electricity I (3)  
AUT 275 Shop Management (2)  
17

Third Semester
AUT 162 Automotive Diagnosis II (3)  
AUT 165 Auto Diagnosis and Tune-Up (2)  
AUT 245 Automotive Electronics (3)  
AUT 266 Auto alignment, Suspension & Steering (3)  
AUT 190 Coordinated Internship (1)  
ITE 115 Intro. to Computer Applications & Concepts (3)  
15

Total Semester Hours: 48
Bookkeeping

Award: Certificate
Length: 2 Semesters

Purpose: The purpose of this program is to provide additional knowledge and skill in basic accounting and bookkeeping for persons seeking immediate employment in the field, for those already employed who want to upgrade skills or for small business owners.

Occupational Objectives: Employment opportunities might include accountant’s assistant, bookkeeper, financial records manager, office manager or small business operator.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examinations:
- Microsoft Office Specialist (MOS) - Excel

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: Students must successfully complete all of the general education, program and elective requirements listed below to be awarded this certificate.

Program Learning Outcomes: A student will be able to:
- Demonstrate ability to reason critically and problem-solve.
- Describe and use general business knowledge and skills.
- Apply the principles of financial accounting, managerial accounting, tax accounting, and payroll accounting.
- Prepare and interpret financial statements.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate effective written communication skills in a business setting.

General Education Requirements (6 Credits):
ENG 111 College Composition I (3)
MTH 120 Introduction to Mathematics (3)

Program Requirements (29 Credits):
ACC 124 Payroll Accounting (3)
ACC 211-212 Principles of Accounting I-II (6)
ACC 215 Computerized Accounting (3)
ACC 261 Principles of Federal Taxation I (3)
BUS 100 Introduction to Business (3)
BUS 125 Applied Business Mathematics (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
ITE 140 Spreadsheet Software (3)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 34 Credits

Sample Schedule

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<tr>
<th>Course</th>
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<tr>
<td>ACC 211</td>
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<td>ITE 115</td>
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<td>MTH 120</td>
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<td>SDV 108</td>
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Total Semester Hours: 34
Clerical Studies

Award: Certificate
Length: 3 Semesters

Purpose: To provide competent entry-level office support personnel for immediate employment in business, industry, the professions, and government.

Occupational Objectives: Completion of this program may lead to employment or career advancement in any of a wide variety of positions such as clerk typist, data entry keyer, file clerk, general clerk, general clerk, clerk stenographer, shipping/receiving clerk, bank teller, information clerk, and switchboard operator/receptionist.

Potential Certification: A student may elect to take an industry-specific certification exam. The examinations generally require a testing fee paid by the student. After completion of this program, a student will be academically prepared to take the following examination:
- Microsoft Office Specialist (MOS) – Word, Excel, Access, PowerPoint

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills or keyboarding will complete additional coursework.

Curriculum Requirements: The student must satisfactorily complete all general education, program and elective requirements listed below to receive a Certificate in Clerical Studies.

Program Learning Outcomes: A student will be able to:
- Demonstrate effective written communication skills in a business setting.
- Produce a variety of business documents using correct grammar, punctuation and spelling in a form acceptable in today’s business environment.
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.

General Education Requirements (6 Credits):
- ENG 111 College Composition I (3)
- MTH 120 Introduction to Mathematics (3)

Program Requirements (35 Credits):
- ACC 124 Payroll Accounting (3)
- AST 101 Keyboarding I (3)
- AST 102 Keyboarding II (3)
- AST 113 Keyboarding for Speed and Accuracy (1)
- AST 234 Records and Database Management (3)
- AST 238 Word Processing Advanced Operations (3)
- AST 243 Office Administration I (3)
- AST 260 Presentation Software (PowerPoint 2007) (3)
- BUS 125 Applied Business Mathematics (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- ITE 140 Spreadsheet Software (3)
- SDV 108 College Survival Skills (1)

Minimum required for certificate: 41 credits

Sample Schedule

Clerical Studies

Fall Semester
ACC 124 Payroll Accounting [or SPA 103] 3
AST 101 Keyboarding I 3
ENG 111 College Composition I 3
ITE 115 Intro. to Computer Applications & Concepts 3
MTH 120 Introduction to Mathematics 3
SDV 108 College Survival Skills 1
16

Spring Semester
AST 102 Keyboarding II 3
AST 141 Word Processing I 3
AST 234 Records and Database Management 3
AST 260 Presentation Software 3
BUS 125 Applied Business Mathematics 3
15

Summer Semester
AST 113 Keyboarding for Speed and Accuracy 1
or AST 154
AST 238 Word Processing Advanced Operations 3
AST 243 Office Administration I [or Approved Elective] 3
ITE 140 Spreadsheet Software 3
10

Total Semester Hours: 41
Computer Aided Drafting & Design

Award: Certificate
Length: 3 Semesters

Purpose: Students will learn to use advanced computer workstations with various CADD software applications. Students will receive instruction and practice in the planning, design, and preparation of high quality technical drawings for a variety of projects. In addition to technical courses, there are supporting courses in communications, mathematics, and social science. These courses serve to broaden the student’s general education background and thus better prepare students for employment and advancement in the career field.

Program Learning Outcomes: Program graduates have generic and specific occupational skills to be competitive in technical drawing creation and manipulation positions (CADD positions) in a variety of manufacturing, engineering, architectural and civil settings. Graduates demonstrate proficiency in 21st Century skills and use of current technological tools of the profession.

Occupational Objectives: Graduates may seek immediate employment or continue their education in the General Engineering Technology Degree program at PHCC. The curriculum is designed to provide educational background and skills training that would be required for students seeking employment in entry level architectural and industrial drafting such as architectural drafting technician, engineering drafting technician, engineering assistant, CAD operator or CAD drafter.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: The students must satisfactorily complete all requirements listed below to receive this certificate

General Education Requirements (6 Credits):
ENG 131 Technical Report Writing I (3)
[or ENG 111 College Composition I (3)]
MTH 120 Introduction to Mathematics (3)

Program Requirements (33 Credits):
CAD 111 Technical Drafting (3)
CAD 200 Survey of Computer Aided Drafting (3)
CAD 202 Computer Aided Drafting and Design II (3)
CAD 203 Computer Aided Drafting and Design III (3)
CAD 226 Computer Aided Machining (3)
CAD 232 Computer Aided Drafting II (3)
CAD 233 Computer Aided Drafting III (3)
CAD 241 Parametric Modeling I (3)
CAD 242 Parametric Modeling II (3)
CAD 280 Design Capstone Project (2)
ITE 115 Intro. to Computer Applications & Concepts (3)
SDV 108 College Survival Skills (1)
Minimum required for certificate: 39 credits

Sample Schedule

Computer Aided Drafting & Design

First Semester
CAD 111 Technical Drafting I 3
CAD 200 Survey of Computer Aided Drafting 3
ENG 131 Technical Report Writing I 3
[or ENG 111]
ITE 115 Intro. to Computer Applications & Concepts 3
SDV 108 College Survival Skills 1

Second Semester
MTH 120 Introduction to Mathematics 3
CAD 202 Computer Aided Drafting and Design II 3
CAD 226 Computer Aided Machining 3
CAD 232 Computer Aided Drafting II 3
CAD 241 Parametric Modeling I 3

Third Semester
CAD 203 Computer Aided Drafting and Design III 3
CAD 233 Computer Aided Drafting III 3
CAD 242 Parametric Modeling II 3
CAD 280 Design Capstone Project 2

Total Semester Credit Hours 39
Early Childhood Education

**Award:** Certificate  
**Length:** 3 Semesters

**Purpose:** The curriculum is designed to train individuals in childcare and upgrade skills of those serving in a similar capacity.

**Program Learning Outcomes:** The graduate of the program will be qualified to serve as a director/administrator or a lead teacher in a licensed child care center, early learning center, or family day home in the state of Virginia.

**Occupational Objectives:** Graduates may qualify for a position as a day care provider, teacher's aide in preschool programs, home care providers, and licensed day care administrators.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses.

**Curriculum Requirements:** Students must satisfactorily complete each of the requirements listed below to receive a Certificate in Early Childhood Education.

### General Education Requirements (15 Credits):
- ENG 111 College Composition I (3)
- PSY 135 Child Care Psychology (3)
- HLT 100 First Aid & Cardiopulmonary Resuscitation (3)
- MTH 120 Introduction to Mathematics (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)

### Program Requirements (22 Credits):
- CHD 118 Methods & Materials Language Arts for Children (3)
- CHD 120 Introduction to Early Childhood Education (3)
- CHD 125 Creative Activities for Children (3)
- CHD 126 Developing Science & Math Concepts for Children (3)
- CHD 205 Guiding the Behavior of Children (3)
- CHD 265 Advanced Observation & Participation in an Early Childhood Setting (3)
- HLT 135 Child Health and Nutrition (3)
- SDV 108 College Survival Skills (1)

**Minimum required for certificate:** 37 Credits

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**Sample Schedule**  
**Early Childhood Education**

**First Semester**
- CHD 118 Methods & Materials in the Language Arts for Children (3)
- CHD 120 Introduction to Early Childhood Education (3)
- ENG 111 College Composition I (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- PSY 135 Child Care Psychology (3)
- SDV 108 College Survival Skills (1)

**Second Semester**
- CHD 125 Creative Activities for Children (3)
- CHD 126 Developing Science & Math Concepts for Children (3)
- CHD 205 Guiding the Behavior of Children (3)
- CHD 265 Advanced Observation & Participation in an Early Childhood Setting (3)
- HLT 100 First Aid and Cardiopulmonary Resuscitation (3)

**Third Semester**
- HLT 135 Child Health and Nutrition (3)
- MTH 120 Introduction to Mathematics (3)

**Total Semester Hours:** 37
General Business

Award: Certificate
Length: 2 Semesters

Purpose: This program is designed to provide additional knowledge and skills for persons seeking immediate employment in local business and those who wish to become better prepared to operate their own small business.

Occupational Objectives: Employment opportunities might include assistant department head, office manager, small business manager or assistant manager.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. Students with deficiencies in computer skills will complete additional coursework.

Curriculum Requirements: Students must satisfactorily complete each of the requirements listed below in order to be awarded this certificate.

Program Learning Outcomes: A student will be able to:
• Demonstrate effective written communication skills in a business setting.
• Apply mathematical reasoning skills to formulate and solve problems.
• Describe and use general business knowledge and skills, including managerial and supervisory concepts.
• Apply the principles of financial accounting.
• Demonstrate proficiency in personal computer operations and applications.
• Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
• Describe contemporary approaches to management and methods to create a positive work environment.

General Education Requirements (9 Credits):
ECO 201 Principles of Macroeconomics (3)
[or ECO 202 Principles of Microeconomics (3)]
ENG 111 College Composition I (3)
MTH 120 Introduction to Mathematics (3)

Program Requirements (22 Credits):
ACC 211 Principles of Accounting I (3)
BUS 100 Introduction to Business (3)
BUS 125 Applied Business Mathematics (3)
BUS 200 Principles of Management (3)
BUS 241 Business Law I (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
MKT 100 Principles of Marketing (3)
MKT 100 Principles of Marketing (3)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 31 Credits

Sample Schedule
General Business

Fall Semester
ACC 211 Principles of Accounting I 3
BUS 100 Introduction to Business 3
ITE 115 Intro. to Computer Applications & Concepts 3
MKT 100 Principles of Marketing 3
MTH 120 Introduction to Mathematics 3
SDV 108 College Survival Skills 3

Spring Semester
BUS 125 Applied Business Mathematics 3
BUS 200 Principles of Management 3
BUS 241 Business Law 3
ECO 201 Principles of Macroeconomics [or ECO 202] 3
ENG 111 College Composition I 3

Total Semester Hours: 32
General Education

Award: Certificate

Length: 2 Semesters

Purpose: The Certificate in General Education is designed for students who are preparing to transfer to a four-year institution after one year of study. The program may also be attractive to students who intend to transition into one of PHCC’s associate degrees. Course selection should be made in consultation with an academic advisor to ensure that students complete courses required by their transfer institution.

Program Description: This program consists of a minimum of 33 credit hours of instruction distributed into general education courses. Only courses which are transfer level college courses may be counted in this degree. This curriculum is the general equivalent of the first year of study in a PHCC transfer degree and it may be tailored to meet the requirements of most transfer degree programs at four-year institutions.

Admission Requirements: Entry into this curriculum is obtained by meeting the admission requirements established by the College. You must take developmental coursework as required by placement testing.

Curriculum Requirements: Requirements for the certificate are listed in the curriculum below.

General Education/Program Requirements

ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
SDV 108 College Survival Skills (1)

Humanities/Fine Arts Elective (6 credits) selected from:
HUM EEE (Humanities/Fine Arts Elective): ART 101 or ART 201, ART 102 or 202, ART 283, ART 284, CST 130 or CST 231, ENG 241, ENG 242, ENG 243, ENG 244, ENG 251, ENG 252, ENG 253, ENG 254, FRE 101, FRE 102, MUS 121, PHI 101, PHI 111, PHI 220, REL 200, REL 210. REL 231, SPA 101, SPA 102

Math Elective (3 credits) selected from:
MTH EEE (Math Elective): MTH 150, MTH 151, MTH 152, MTH 157, MTH 163, MTH 164, MTH 166, MTH 173, MTH 174, MTH 175, MTH 176, MTH 177, MTH 178, MTH 240, MTH 241, MTH 271

Natural Science Elective (8 credits) selected from:
NAS EEE (Natural Science Elective): BIO 101, BIO 102, BIO 141, BIO 142, BIO 231, BIO 232, CHM 111, CHM 112, GOL 105, GOL 106, GOL 206, GOL 225, PHY 201, PHY 202, PHY 241, PHY 242

Social Science Elective (9 credits) selected from:
SSC EEE (Social Science Elective): ECO 201, ECO 202, GEO 210, HIS 101, HIS 102, HIS 121, HIS 122, HIS 141, HIS 142, PLS 211, PLS 212, PSY 200, PSY 215, PSY 230, PSY 235, SOC 200, SOC 215, SOC 226, SOC 268

Minimum required for certificate: 33 Credits

Sample Schedule

General Education

First Semester

ENG 111 College Composition I 3
HUM EEE Humanities/Fine Arts Elective 3
MTH EEE Math Elective 3
NAS EEE Natural Science Elective 4
SSC EEE Social Science Elective 3
SDV 108 College Survival Skills 1

17

Second Semester

ENG 112 College Composition II 3
HUM EEE Humanities/Fine Arts Elective 3
NAS EEE Natural Science Elective 4
SSC EEE Social Science Elective 3
SSC EEE Social Science Elective 3

16

Total Semester Hours: 33
Heating, Ventilation, Air Conditioning & Refrigeration

**Award:** Certificate  
**Length:** 3 Semesters

**Purpose:** This program provides the student with entry-level skills for employment in residential, commercial and industrial fields. It also provides advanced and upgraded training for those presently employed. Theoretical classroom experiences as well as hands on experiences are utilized.

**Program Learning Outcomes:** A graduate of the HVAC program will have demonstrated mastery of generic and specific residential, commercial and industrial occupational skills relative to the field. Graduates will be prepared for EPA Certification.

**Occupational Objectives:** Graduates of this program will qualify for positions with residential contractors, commercial installers and industrial HVAC maintenance mechanics.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics will complete appropriate developmental education courses.

**Curriculum Requirements:** The student must satisfactorily complete all general education, program and elective requirements listed below to receive a Certificate in Heating, Ventilation, Air Conditioning and Refrigeration.

**General Education Requirements (13 Credits):**
- ENG 131 Technical Report Writing I (3)  
  *or* ENG 111 College Composition I (3)  
- MTH 120 Introduction to Mathematics I (3)  
- HLT 100 First Aid & Cardiopulmonary Resuscitation (3)  
- ITE 115 Intro. to Computer Applications & Concepts (3)  
- SDV 108 College Survival Skills (1)

**Program Requirements (36 Credits):**
- AIR 117 Metal Layout I (3)  
- AIR 121 Air Conditioning and Refrigeration I (4)  
- AIR 134 Circuits and Controls I (4)  
- AIR 154 Heating Systems I (3)  
- AIR 190 Coordinated Internship (1)  
- AIR 235 Heat Pumps (3)  
- AIR 238 Advanced Troubleshooting and Service (3)  
- AIR 253 Air Conditioning Systems III (3)  
- AIR 257 Gas Fired Warm Air Furnaces (4)  
- ELE 115 Basic Electricity (3)  
- AIR 299 Supervised Study in HVAC (2)  
- ENE 105 Solar Thermal Active and Passive Technology (4)  
- ENE 230 Geothermal Applications (4)

**Minimum required for certificate:** 49 Credits

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**Sample Schedule**  
**Heating, Ventilation, Air Conditioning & Refrigeration**

**First Semester**
- AIR 121 Air Conditioning and Refrigeration I (4)  
- AIR 154 Heating Systems I (3)  
- ENG 131 Technical Report Writing I (3)  
  *or* ENG 111 College Composition I (3)  
- MTH 120 Introduction to Mathematics I (3)  
- HLT 100 First Aid & Cardiopulmonary Resuscitation (3)  
- ITE 115 Intro. to Computer Applications & Concepts (3)  
- SDV 108 College Survival Skills (1)

**Second Semester**
- AIR 134 Circuits and Controls I (4)  
- AIR 235 Heat Pumps (3)  
- ENE 105 Solar Thermal Active and Passive Technology (4)  
- ENE 230 Geothermal Applications (4)

**Third Semester**
- AIR 117 Metal Layout I (3)  
- AIR 238 Advanced Troubleshooting and Service (3)  
- AIR 253 Air Conditioning Systems III (3)  
- AIR 299 Supervised Study in HVAC (2)  
- HLT 100 First Aid & Cardiopulmonary Resuscitation (3)  
- ITE 115 Intro. to Computer Applications & Concepts (3)

**Total Semester Hours:** 49
Health Sciences

Award: Certificate
Length: 3 semesters

Purpose: This program will prepare graduates for entry into many health science programs of study. Public School students may complete this program through dual enrollment for entry into many post secondary health science programs as a sophomore. The program is designed to serve both the needs of students interested in the associate degree nursing program at PHCC and those interested in allied health programs at other schools of choice. Students transferring to other schools are responsible for verifying transferability of PHCC courses.

Occupational Objectives: This certificate prepares the student for entry into many different health career programs.

Admission Requirements: Students must meet the general admission requirements established by the college. Certain certificate-related courses require satisfactory scores on college placement tests. Students with deficiencies will be required to complete satisfactorily developmental education courses before enrolling in these courses. Admission to the Health Sciences Certificate does not guarantee admission to the associate degree nursing program. Students interested in being admitted to the associate degree nursing need to see the nursing advisor.

Curriculum Requirements: The student must satisfactorily complete all courses or approved substitutes in the curriculum to receive a Certificate in Health Sciences. Students who complete a Health Science Certificate must earn a “C” average in all science, social science and math classes.

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<th>Credits</th>
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<td>BIO 231-232</td>
<td>Human Anatomy and Physiology I-II (4) (4)</td>
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<tr>
<td>HLT 143</td>
<td>Medical Terminology I (3)</td>
</tr>
<tr>
<td>HLT 230</td>
<td>Principles of Nutrition and Human Development (3)</td>
</tr>
<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts (3)</td>
</tr>
<tr>
<td>MTH 126</td>
<td>Mathematics for Allied Health (3)</td>
</tr>
<tr>
<td>PSY 230</td>
<td>Developmental Psychology (3)</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills (1)</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Principles to Sociology (3)</td>
</tr>
</tbody>
</table>

Minimum required for certificate: 36 credits
Industrial Welding

**Award:** Certificate

**Length:** 3 Semesters

**Purpose:** The curriculum is designed to provide skills and knowledge in general and specialized welding.

**Program Learning Outcomes:** Program graduates’ have generic and specific occupational skills to be competitive in welding positions in a variety of settings such as welding specialist, welding assistant, self-employment and industrial maintenance. Graduates demonstrate proficiency in 21st Century skills and use of current technological tools of the profession, and take an American Welding Society D1.1 Structural Welding Code Certification Test.

**Occupational Objectives:** Employment opportunities for graduates of this program might include welding specialist, welding assistant, self-employment and industrial maintenance.

**Admission Requirements:** Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses.

**Curriculum Requirements:** The student must satisfactorily complete all general education, program and elective requirements listed below to receive a Certificate in Industrial Welding.

**General Education Requirements (9 Credits):**
- ENG 131 Technical Report Writing I (3)
- [or ENG 111 College Composition I (3)]
- MTH 120 Introduction to Mathematics (3)
- HLT 100 First Aid & Cardiopulmonary Resuscitation (3)

**Program Requirements (30 Credits):**
- SDV 108 College Survival Skills (1)
- WEL 117 Oxyacetylene Welding and Cutting (3)
- WEL 123 ARC Welding (Basic) (4)
- WEL 124 ARC Welding (Advanced) (4)
  *(Skill demonstration test must be satisfactorily completed in WEL 124 before proceeding into WEL 126)*
- WEL 126 Pipe Welding I (3)
- WEL 130 Inert Gas Welding (3)
- WEL 141 Welding Qualification Tests I (3)
- WEL 145 Welding Metallurgy (3)
- WEL 150 Welding Drawing and Interpretation (2)
- WEL 198 Seminar and Project (4)

**Total Semester Hours:** 39

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**Sample Schedule**  
**Industrial Welding**

**First Semester**
- ENG 131 Technical Report Writing I 3
  *(or ENG 111)*
- MTH 120 Introduction to Mathematics 3
- SDV 108 College Survival Skills 1
- WEL 117 Oxyacetylene Welding and Cutting 3
- WEL 123 ARC Welding (Basic) 4
- WEL 150 Welding Drawing and Interpretation 2
  16

**Second Semester**
- HLT 100 First Aid and Cardiopulmonary Resuscitation 3
- WEL 126 Pipe Welding I 3
- WEL 124 ARC Welding (Advanced) 4
- WEL 130 Inert Gas Welding 3
- WEL 145 Welding Metallurgy 3
  16

**Third Semester**
- WEL 198 Seminar and Project 4
- WEL 141 Welding Qualification Tests I 3
  7

**Minimum required for certificate:** 39 Credits
**Practical Nursing**

**Award:** Certificate  
**Length:** 3 Semesters

**Purpose:** The purpose of this program is to prepare selected students to qualify as practitioners of practical nursing in a variety of health service facilities. After successful completion of the program, students will be eligible for the National Council Licensure Examination-Practical Nurse. Passage of this exam will make the graduate eligible to be licensed as a Licensed Practical Nurse in the Commonwealth of Virginia.

**Program Learning Outcomes:** A graduate of the program will have demonstrated mastery of generic and specific occupational knowledge and skills prior to graduation. Skill and knowledge attainment is assured through regular, valid and reliable comprehensive assessment. Graduates of the program will be eligible to take the National Council Licensure Examination for Practical Nurses.

**Special Accreditation Status:** The program is approved by the Virginia Board of Nursing.

**Occupational Objectives:** Employment opportunities for the licensed practical nurse include staff positions in hospitals, long term care facilities, physicians’ offices, clinics, day care centers, industry, schools and home health care agencies.

**Admission Requirements:** The applicant must meet the following requirements for admission into the required clinical courses ((PNE 161, 141, 142, 163, 145, 164, and 158). Interested students should contact the nursing/allied health office for academic advising.

1. Be accepted as a student to the college.  
2. Graduate from high school or a GED.  
3. Complete the Compass test. If scores indicate, the applicant will be required to successfully complete developmental courses before submitting a practical nursing program application. 
4. Validate computer competency equivalent to ITE 95. 
5. Complete one unit of high school algebra with no grade below a ‘C’. Deficiencies can be made up through approved developmental or college level courses. Deficiencies must be completed before application to the practical nursing program. 
6. Complete one high school unit of college prep level science with no grade below a C. Course to be used for high school substitute class: BIO 101 or BIO 102. 
7. Maintain cumulative college or high school grade point average of 2.5 or better. 
8. After meeting the above criteria, submit an application for the Practical Nursing Program during the specified advertised application period, along with required paperwork, i.e. high school transcripts, college transcripts, etc. during the application period. 
9. Achieve a passing score on the Admission Test. 
10. Students will be scheduled for the admission test after their application file has been reviewed and approved. Applicants must have satisfactory scores in reading, mathematics, science, English and language usage.

**Admission procedure:** Applications to the nursing program are processed during specified advertised application periods. At the end of the advertised application period, completed applications with required supporting documents, will be reviewed and considered. Admission testing will be offered to students meeting all admission requirements. Students who meet criteria, meaning score within the state regulation (45th percentile ranking) will be given priority. NOTE: When admission must be limited because the number of qualified applicants exceeds available space, admission to the program will be given to applicants who scored at or above the 45th percentile ranking, and are also residents of the college service area. If seats are still available applicants who scored at or above the 45th percentile ranking, who live outside of the college service area will be offered admission starting with the higher percentile ranking, until all seats are filled. Applicants who are not accepted will be eligible to reapply at the next application period, at which time applicants meeting admission requirements will be allowed to repeat the admission test, and the most recent scores will be used for admission consideration.

The typical physical demands of a licensed practical nurse include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing and walking for extensive periods of time. The licensed practical nurse should be able to lift and carry items weighing up to 50 pounds. The job settings have stressful conditions and/or irregular hours. There is the potential for exposure to communicable diseases. After admission to the clinical courses, the prospective student is provided with a physical exam form that must be completed by a physician prior to enrolling in nursing classes.

Upon admission, students are required to undergo mandatory drug screening and a criminal background check. Students must have a negative drug screen in order to begin clinical courses. Any charges or costs associated with the criminal background check and drug screen will be the responsibility of the student.

Please note that the Virginia State Board of Nursing may refuse to admit a candidate to any licensure examination and refuse to issue a license or certificate to any applicant who has been convicted of any felony or misdemeanor involving moral turpitude. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the Practical Nursing program.

**Financial Requirements:** In addition to the usual college tuition and fees, this program requires additional expenses. Approximate costs include:

- Uniforms: $230  
- Physical Examination: $100  
- Books: $400-$800  
- Graduation Pin: cost depends on price of gold or silver  
- AHA BCLS CPR certification: $127  
- Standardized Tests: $97  
- Criminal Background Checks: $50-$75  
- Drug Screens: $40-$50  
- Application for Licensure fees: $370  
- Transportation to clinical agencies, seminars, etc. as required

**Curriculum Requirements:** Students must successfully complete all of the general education and program listed below.
to be awarded this certificate. To remain in the program, a student must have a “C” or above in all PNE and NUR courses. Additionally, student must have a grade of “C” or above in all semesters of natural science and psychology courses.

**General Education Requirements (11 Credits):**
- ENG 111 College Composition I (3)
- NAS 150 Human Biology (4)
- PSY 230 Developmental Psychology (3)
- HLT 141 Introduction to Medical Terminology (1)

**Program Requirements (37 Credits):**
- PNE 161 Nursing in Health Changes I (6)
- PNE 141-142 Nursing Skills I-II (4)
- NUR 135 Drug Dosage Calculations (2)
- PNE 163 Nursing in Health Changes III (8)
- PNE 145 Trends in Practical Nursing (1)
- PNE 164 Nursing in Health Changes IV (11)
- PNE 173 Pharmacology for Practical Nurses (2)
- PNE 158 Mental Health and Psychiatric Nursing (2)
- SDV 108 College Survival Skills (1)

**Minimum required for certificate: 49 Credits**

**Sample Schedule**

**Practical Nursing**

**First Semester**
- PNE 161 Nursing in Health Changes I 6
- PNE 141 Nursing Skills I 2
- PNE 142 Nursing Skills II 2
- NAS 150 Human Biology 4
- NUR 135 Drug Dosage Calculations 2
- HLT 141 Introduction to Medical Terminology 1
- SDV 108 College Survival Skills 1
  18

**Second Semester**
- PNE 163 Nursing in Health Changes III 8
- PNE 173 Pharmacology for PN 2
- PSY 230 Developmental Psychology 3
- ENG 111 College Composition I 3
  16

**Third Semester**
- PNE 164 Nursing in Health Changes IV 11
- PNE 158 Mental Health and Psychiatric Nursing 2
- PNE 145 Trends in Practical Nursing 1
  14

**Total Semester Hours: 48**
Therapeutic Massage

Award: Certificate
Length: 3 Semesters

Purpose: To prepare graduates for the national certification in Massage Therapy in Virginia.

Program Learning Outcomes: A graduate of the program will have demonstrated mastery of generic and specific occupational skills prior to graduation. Skill attainment is assured through regular, valid, and reliable comprehensive assessment. Graduates will be eligible to take the National Certification Board for Therapeutic Massage and Bodywork examination. After successful passage of this exam, the graduate will be eligible for licensure in Virginia as a Massage Therapist.

Occupational Objectives: Licensed graduates with national certification can work independently in a variety of health care, business, and recreational settings as well as self employment. Businesses using massage therapists include hotels, cruise ships, hospitals, corporations, doctors’ offices, and many spa or personal wellness agencies.

National Certification: Graduates of the program must have a minimum of 700 documented hours of supervised training to be eligible to take the national test. Passage of the test will allow graduates to become licensed as a Massage Therapist by the Commonwealth of Virginia.

Admission Requirements: Students must meet the general admission requirements established by the college. Students with deficiencies in English or mathematics must complete appropriate developmental education courses. (See Allied Health Advisor prior to enrollment)

Curriculum Requirements: The student must satisfactorily complete all general education, program and elective requirements listed below to receive a Certificate in Therapeutic Massage.

General Education Requirements (15 Credits):
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
BUS 165 Small Business Management (3)
HLT 105 Cardiopulmonary Resuscitation (1)
PED 109 Yoga (1)
NAS 150 Human Biology (4)

Program Requirements (25 Credits):
HLT 195 Theories of Massage (3)
HLT 180 Therapeutic Massage I (3)
HLT 280 Therapeutic Massage II (3)
HLT 281 Therapeutic Massage III (3)
HLT 295 Specialized Massage Therapies (3)
HLT 220 Concepts of Disease (3)
HLT 143 Medical Terminology I (3)
HLT 116 Personal Wellness (3)
SDV 108 College Survival Skills (1)

Minimum required for certificate: 40 Credits

Students must complete each of the above requirements for a total of 40 credit hours.

Please note that the core massage courses are offered in the evenings and on Saturdays.

Sample Schedule
Therapeutic Massage

First Semester
ENG 111 College Composition I  3
HLT 195 Theories of Massage  3
HLT 180 Therapeutic Massage I  3
NAS 150 Human Biology  4
SDV 108 College Survival Skills  1

Second Semester
ENG 112 College Composition II  3
HLT 116 Personal Wellness  3
HLT 280 Therapeutic Massage II  3
HLT 295 Specialized Massage Therapies  3
PED 109 Yoga  1

Third Semester
HLT 143 Medical Terminology  3
BUS 165 Small Business Management  3
HLT 105 Cardiopulmonary Resuscitation  1
HLT 220 Concepts of Disease  3
HLT 281 Therapeutic Massage III  3

Total Semester Hours: 40
Career Studies Certificates

Art Studies
Automotive Engine Technology
Auto Body Technology
Building Trades Technology
Community Services Leadership
Computer Service Technician
Culinary Arts
Culinary and Hospitality Management
Customer Support Specialist
Early Childhood Instruction
E-Commerce Management
Emergency Medical Technician – Basic
Emergency Medical Technician-Intermediate
Emergency Medical Technician-Paramedic
Entrepreneurial Studies
Graphic Communications
Heating, Ventilation, Air Conditioning & Refrigeration
Horticulture
Industrial Controls
Industrial Maintenance Electronics
International Business
Internet Webmaster
Management Assistant
Manufacturing Technician
Medical Transcription
Microcomputer Literacy
Motorsports Engines Technology
Motorsports Fabrication and Set-Up Technology
Motorsports Management
Nurse Aide Training
Office Assisting
Pharmacy Technician
Residential/Commercial/Industrial Electrician
School-Age Child Care
Small Business Management
Supervision
Theatre Arts
Viticulture
Welding
Wellness

Career Studies Certificates require less than a full year of study in an occupational area, but include key courses for a strong introduction to the area of study. They are designed primarily to enhance or develop job skills.
Career Studies Certificates

Length: Variable for upgrading, retraining and continuing career students. The options within this program normally amount to the minimum equivalent of one semester of full-time community college work and not more than the equivalent of a year (9-29) credits.

Purpose: Many students seek post-secondary career programs of study that are less than the conventional one- or two-year programs. The Career Studies Certificate program is a response to the needs of many adults within PHCC's service region and is intended to represent the minimum amount of college course work needed in these fields of study. Each of the program options is designed as a distinct “mini-curriculum” within a broader range of adult educational possibilities.

Certificate Award: After satisfactorily completing courses with a “C” average (2.0), the student should contact the registrar’s office and apply for graduation after verification that all program requirements have been met. Students interested in a certificate, diploma or associate degree should talk to a counselor to investigate the possibilities of using these courses in other curricula.

Admission Requirements: Students must meet the general admission requirements established by the college.

Other Information: Certain certificate-related courses require satisfactory scores on college placement tests. Students with deficiencies will be required to complete satisfactorily developmental education courses before enrolling in these courses. Other certificate-related courses may be taken while developmental education are being completed. Some programs, such as Therapeutic Massage require additional expenditures for supplies and equipment. Please check with the appropriate division dean for this information.

Art Studies

Purpose: This program is designed to provide skills for the individual pursuing a vocational or other artistic interest.

Program Learning Outcomes: A student will be able to:
• Demonstrate an appreciation for the arts.
• Demonstrate competency in at least two areas within the field of visual arts.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 121</td>
<td>Drawing I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 122</td>
<td>Drawing II (3)</td>
<td></td>
</tr>
<tr>
<td>ART 201</td>
<td>Art History I (3)</td>
<td></td>
</tr>
<tr>
<td>ART 241</td>
<td>Painting I (3)</td>
<td></td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills (1)</td>
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</tr>
</tbody>
</table>

Student must complete the above 13 credits to be awarded the Career Studies Certificate in Art Studies.

Automotive Engine Technology

Purpose: This program is designed for students who wish to enter advanced Motorsports engine courses. Students must score 80 points or higher on the PHCC engine technology assessment to proceed. Students with deficiencies in Automotive Technology will complete additional course work. Students must complete all required courses as advised by department faculty and maintain a 2.5 Curriculum Grade Point Average to continue in the program. Tools for the program are required.

Program Learning Outcomes: Graduates will have fundamental skills for advanced training in dynamics of high performance engines. Graduates will demonstrate proficiency in automotive engine repair and maintenance.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 109</td>
<td>Applied Mathematics for Automotive Technicians (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 111</td>
<td>Automotive Engines I (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 112</td>
<td>Automotive Engines II (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 113</td>
<td>Cylinder Block Service I (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 114</td>
<td>Cylinder Head Service II (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 120</td>
<td>Introduction to Automotive Machine Shop (3)</td>
<td></td>
</tr>
<tr>
<td>AUT 190</td>
<td>Coordinated Internship (1)</td>
<td></td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills (1)</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete the above 20 credit hours to be awarded the Career Studies Certificate in Automotive Engine Technology.

Auto Body Technology

Purpose: This program is designed for students who wish to gain basic skills for entry level positions in Auto Body repair.

Program Learning Outcomes: Graduates will have fundamental skills for entry level auto body repair. Graduates will demonstrate proficiency in automotive collision repair and maintenance.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB 106</td>
<td>Basic Sheet Metal Operations (4)</td>
<td></td>
</tr>
<tr>
<td>AUB 116</td>
<td>Auto Body Repair (4)</td>
<td></td>
</tr>
<tr>
<td>AUB 118</td>
<td>Automotive Paint Preparation (4)</td>
<td></td>
</tr>
<tr>
<td>AUB 119</td>
<td>Automotive Painting (4)</td>
<td></td>
</tr>
<tr>
<td>AUB 290</td>
<td>Coordinated Internship (3)</td>
<td></td>
</tr>
</tbody>
</table>

Students must complete the above 19 credit hours to be awarded the Career Studies Certificate in Auto Body Technology.
Building Trades Technology

**Purpose:** This program is designed to provide introductory training for individuals seeking entry-level employment in trades-related fields.

**Program Learning Outcomes:** Graduates will have fundamental skills for entry-level construction tradesman. Graduates will demonstrate proficiency in fundamental carpentry, electricity, plumbing, and masonry.

- BLD 105 Shop Practices and Procedures (3)
- BLD 111 Blueprint Reading and Building Code (3)
- BLD 135 Building Construction Carpentry (3)
- BLD 140 Principles of Plumbing Trade I (3)
- BLD 147 Principles of Block and Bricklaying (3)
- BLD EEE Elective (3)
- ELE 110 Home Electric Power (3)
- ENG 111 College Composition I (3)
- MTH 21 Survey of Technical Mathematics I (3)
- SDV 108 College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Building Trades Technology.

Community Services Leadership

**Purpose:** This program is designed for front-line and mid-level supervisors and aspiring leaders in community service-oriented organizations within the region, such as Piedmont Community Services.

**Program Learning Outcomes:** Graduates will develop supervisory and leadership skills necessary to become effective supervisors, managers, and leaders.

- BUS 111 Principles of Supervision I (3)
- BUS 112 Principles of Supervision II (3)
- BUS 205 Human Resource Management (3)
- BUS 265 Ethical Issues in Management (3)
- CST 115 Small Group Communication (3) or
- CST 110 Introduction to Communication (3)
- BUS or PBS Elective (3)

Students must complete the above 18 credit hours to be awarded the Career Studies Certificate in Community Services Leadership.

Computer Service Technician

**Purpose:** This program is designed to provide skills and knowledge needed for employment as a computer service technician and certification for the CompTIA A+ exam.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate skills in computer hardware knowledge related to installation, configuration, and upgrading, diagnosing and troubleshooting, preventive maintenance, printers, and basic networking.
- Demonstrate skills in computer operating system knowledge related to operating system fundamentals, installation, configuration, and upgrading, diagnosing and troubleshooting, and networks.

- CSC 110 Introduction to Computing (3)
- ITE 115 Intro. to Computer Applications & Concepts (3)
- ITE 199 Supervised Study-Certification Exam Preparation (3)
- ITN 106 Microcomputer Operating Systems (3)
- ITN 107 Personal Computer Hardware and Troubleshooting (3)
- SDV 108 College Survival Skills (1)

Students must complete the above 16 credit hours to be awarded the Career Studies Certificate in Computer Service Technician.

Culinary Arts

**Purpose:** This program prepares graduates for entry-level responsibilities in the hospitality industry.

**Program Learning Outcomes:** Upon completion, each student has a working knowledge of food production in a professional culinary work environment.

- HRI 106 Principles of Culinary Arts I (3)
- HRI 119 Applied Nutrition for Food Service (3)
- HRI 128 Principles of Baking (3)
- HRI 134 Food and Beverage Service Management (3)
- HRI 154 Principles of Hospitality Management (3)
- HRI 158 Sanitation & Safety (3)
- HRI 190 Coordinated Internship (3)
- HRI Elective (3)
- ITE 115 Intro. To Computer Applications & Concepts (3)
- SDV 108 College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Culinary Arts.

Culinary and Hospitality Management

**Purpose:** This program prepares graduates to fulfill mid to upper level responsibilities in the hospitality industry.

**Program Learning Outcomes:** Upon completion, each student has the knowledge base in food production, dining and managing food service tasks to work as lead cook in the food service field.

- BUS 165 Small Business Management (3)
- BUS 205 Human Resource Management (3)
- HRI 145 Garde Manger (3)
- HRI 158 Sanitation and Safety (3)
- [or approved HRI Elective (3)]
- HRI 207 American Regional Cuisine (3)
- HRI 218 Fruit, Vegetable, and Starch Preparation (3)
- HRI 219 Stock, Soup, and Sauce Preparation (3)
Emergency Medical Technician – Basic

**Purpose:** This program is designed to provide knowledge and skills to prepare the student to qualify as practitioners of emergency medical services in a variety of health service facilities. Employment opportunities for the emergency medical technician include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician’s offices, clinics, industry, and home health care agencies. After successful completion of the program students will be eligible to take both the National Registry of Emergency Medical Technicians and the Virginia Office of EMS Emergency Medical Technician certification examination.

**Program Learning Outcomes:** Graduates of the program will have the knowledge and skills to practice as an Emergency Medical Technician in a variety of health service facilities. A graduate of the program will have demonstrated mastery of generic and specific basic life support skills prior to graduation. Skill attainment is assured through regular, valid and reliable comprehensive assessment.

**Admission Requirements:** Students must meet the following requirements for admission to the EMT – Basic Career Studies Certificate Program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED.
3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed.
4. Students holding current Virginia certification as either an Emergency Medical Technician or EMT-Enhanced may be considered for advanced placement after all other admission requirements are met.

The typical physical demands of an emergency medical technician include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The emergency medical technician should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory...
criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the program.

To graduate from the program, a student must have a “C” or above in all EMS courses.

EMS 111  Emergency Medical Technician – Basic (7)
EMS 120  EMT-Basic Clinical (1)
SDV 108  College Survival Skills (1)

Students must complete the above 9 credits to be awarded the Career Studies Certificate in EMT-Basic.

Emergency Medical Technician-Intermediate

**Purpose:** This program is designed to provide knowledge and skills to prepare the student to qualify as practitioners of emergency medical services in a variety of health service facilities. Employment opportunities for the EMT-Intermediate include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician’s offices, clinics, industry, and home health care agencies. After successful completion of the program students will be eligible to take the National Registry of Emergency Medical Technicians EMT-Intermediate certification examination.

**Program Learning Outcomes:** Graduates of the program will have the knowledge and skills to practice as an EMT-Intermediate in a variety of health service facilities. A graduate of the program will have demonstrated mastery of generic and specific basic and advanced life support skills prior to graduation. Skill attainment is assured through regular, valid and reliable comprehensive assessment.

**Admission Requirements:** The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising:

1. Be accepted as a student to the college.
2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.
3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student’s scores, these courses must be successfully completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.
4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program.
5. Students currently enrolled at the college, in addition to applicants holding current Virginia certification as either an Emergency Medical Technician or EMT-Enhanced, will be given priority for admission into the program and may be considered for advanced placement after all other admission requirements are met.
6. Submit an *EMS Program Application* form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

The typical physical demands of an EMT-Intermediate include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The EMT-Intermediate should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

To remain in the program, a student must have a “C” or above in all EMS courses.

**Electives:**
- EMS 151  Introduction to Advanced Life Support (4)
- EMS 153  Basic ECG Recognition (2)
- EMS 155  ALS Medical Care (4)
- EMS 157  ALS Trauma Care (3)
- EMS 159  ALS Special Populations (3)
- EMS 170  ALS Internship I (2)
Students must complete the above 22 credits to be awarded the Career Studies Certificate in EMT-Intermediate.

Emergency Medical Technician-Paramedic

Purpose: This program is designed to provide knowledge and skills to prepare the student to qualify as practitioners of emergency medical services in a variety of health service facilities. Employment opportunities for the paramedic include pre-hospital EMS agencies, municipal fire departments, emergency departments in hospitals, nursing homes, physician’s offices, clinics, industry, and home health care agencies. After successful completion of the program students will be eligible to take the National Registry of Emergency Medical Technicians Paramedic certification examination.

Program Learning Outcomes: Graduates of the program will have the knowledge and skills to practice as a Paramedic in a variety of health service facilities. A graduate of the program will have demonstrated mastery of generic and specific basic and advanced life support paramedic skills prior to graduation. Skill attainment is assured through regular, valid and reliable comprehensive assessment.

Admission Requirements: The applicant must meet the following requirements for admission to the EMS Education program. Interested students should contact the EMS Program Director for academic advising.

1. Be accepted as a student to the college.

2. Graduation from high school or satisfactory completion of the GED. Verification of high school graduation or GED is required by Virginia OEMS for this level of certification. Submission of official transcripts or GED scores is mandatory for all applicants.

3. Completion of PHCC Admission Placement tests unless appropriate college level English or math courses have been successfully completed. If any developmental courses in English or math are needed as indicated by student’s scores, these courses must be successfully completed before the student can enroll in EMS 151 – Introduction to Advanced Life Support. Failure to successfully complete pre-requisites for enrollment in EMS 151 will delay program progression in the EMS curriculum by one academic year.

4. A cumulative college grade point average of 2.0 or better in all related and general education requirements completed before admission into the EMS Education program is desired and will be given higher priority for admission into the program.

5. Students must be currently enrolled at the college and have completed requirements for graduation from the EMT Intermediate Career Studies Certificate Program or must possess either current Virginia or National Registry EMT-Intermediate certification to be accepted into the program.

6. Submit an EMS Program Application form along with required paperwork, i.e. high school transcripts, college transcripts, current EMS certification, etc. during the specified EMS Education program application period.

The typical physical demands of a paramedic include the following: full range of motion including handling and lifting patients and/or equipment, manual and finger dexterity and eye-hand coordination. The job generally requires standing, walking for extensive periods of time, and working in all type of environments. The paramedic should be able to lift and carry items weighing up to 50 pounds. The job settings may have stressful conditions and/or irregular hours. There is a potential for exposure to communicable diseases. After admission to the EMS Education program, the prospective student is provided with an EMS Physical Examination form that must be completed by a physician prior to enrolling in the clinical or field internship classes.

Upon admission, all students are required to undergo mandatory drug screening. Students must have a negative drug screen in order to begin the clinical or field internship classes.

Please note that any prospective EMS student with a criminal conviction needs to speak with the EMS Program Director prior to enrollment at PHCC. Certain convictions will prevent the person from being certified as an Emergency Medical Services Provider in Virginia. Students must produce a satisfactory criminal background check to the standards of all clinical agencies used by the college for experiential learning prior to enrolling in the EMS program.

To remain in the program, a student must have a “C” or above in all courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMS 151</td>
<td>Introduction to Advanced Life Support</td>
<td>3</td>
</tr>
<tr>
<td>EMS 201</td>
<td>Professional Development</td>
<td>3</td>
</tr>
<tr>
<td>EMS 205</td>
<td>Advanced Pathophysiology</td>
<td>4</td>
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<tr>
<td>EMS 207</td>
<td>Advanced Patient Assessment</td>
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<tr>
<td>EMS 209</td>
<td>Advanced Pharmacology</td>
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<tr>
<td>EMS 211</td>
<td>Operations</td>
<td>2</td>
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<tr>
<td>EMS 242</td>
<td>ALS Clinical Internship III</td>
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<td>EMS 243</td>
<td>ALS Field Internship III</td>
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<tr>
<td>EMS 244</td>
<td>ALS Clinical Internship IV</td>
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<tr>
<td>EMS 245</td>
<td>ALS Field Internship IV</td>
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<tr>
<td>NAS 150</td>
<td>**Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>1</td>
</tr>
</tbody>
</table>
** Student may substitute BIO 231 – Human Anatomy & Physiology I or BIO 232 – Human Anatomy & Physiology II.

Student must complete the above 25 credits to be awarded the Career Studies Certificate in EMT-Paramedic.

E-Commerce Management

**Purpose:** This program is designed to provide skills related to electronic commerce, electronic marketing, and web page design to entrepreneurs and other business professionals.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Demonstrate the ability to plan.
- Demonstrate knowledge of design and construction of web pages for effective business use.

- **BUS 116** Entrepreneurship (3)
- **BUS 280** Introduction to International Business (3)
- **ITD 110** Web Page Design I (3)
- **ITE 115** Intro. to Computer Applications & Concepts (3)
- **ITE 130** Introduction to Internet Services (3)
- **MKT 100** Principles of Marketing (3)
- **MKT 260** Customer Service Management (3)
- **MKT 281** Principles of Internet Marketing (3)
- **SDV 108** College Survival Skills (1)

Students must complete the above 25 credits to be awarded the Career Studies Certificate in E-Commerce Management.

Entrepreneurial Studies

**Purpose:** This program is designed to provide skills in establishing a successful small business.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate knowledge in the development of a business plan.
- Describe the qualities needed for a successful entrepreneur.

- **BUS 165** Small Business Management (3)
- **BUS 116** Entrepreneurship (3)
- **SDV 108** College Survival Skills (1)
- **Approved Elective** (3)

Students must complete the above 10 credits to be awarded the Career Studies Certificate in Entrepreneurial Studies.

Graphic Communications

**Purpose:** This program is designed to provide skills specifically related to the design and generation of computer graphics and page layout.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate skills in the development of computer graphics.
- Demonstrate skills in the development of web pages.

- **ART 121** Drawing I (3)
- **ITD 110** Web Page Design I (3)
- **ITD 112** Designing Web Page Graphics (3)
- **ITD 220** Web Page Design II (3)
- **ITE 115** Intro. to Computer Applications & Concepts (3)
- **ITE 130** Introduction to Internet Services (3)
- **ITP 160** Intro. to Game Design & Development (3)
- **SDV 108** College Survival Skills (1)
- **Approved Fine Arts elective** (3)

Student must complete the above 25 credits to be awarded the Career Studies Certificate in Graphic Communications.

Heating, Ventilation, Air Conditioning & Refrigeration

**Purpose:** This program is designed to provide the current practitioner with advanced skills needed for residential, commercial, and industrial HVAC servicing.

**Program Learning Outcomes:** Graduates will have fundamental skills for installation and repair of HVAC control systems. Graduates will demonstrate proficiency in electrical codes, OSHA criteria, system installation, system balancing, and system troubleshooting.

- **AIR 117** Metal Layout I (3)
- **AIR 121** Air Conditioning and Refrigeration I (4)
- **AIR 134** Circuits and Controls (4)
- **AIR 154** Heating Systems I (3)
- **AIR 235** Heat Pumps (3)
- **AIR 238** Advanced Troubleshooting & Service (3)
- **AIR 299** Supervised Study in HVAC (2)
- **ENE 230** Geothermal Applications (4)
- **ELE 115** Basic Electricity (3)

Student must complete the above requirements for a total of 29 credits to receive the Career Studies Certificate in HVAC.

Horticulture

**Purpose:** The purpose of this program is to provide broad based skills to be applied to the horticultural industry. Graduates will be prepared for a variety of employment opportunities such as: Landscaper, Landscape Contractor, nursery employee, and estate grounds maintenance. Applicants must meet placement requirements of ENF 3 or above, and MTE 1-3.

- **HRT 100** Introduction to Horticulture (3)
- **HRT 110** Principles of Horticulture (3)
- **HRT 115** Plant Propagation (3)
- **HRT 190** Coordinated Internship (2)
- **HRT 201** Landscape Plants I (3)
- **HRT 202** Landscape Plants II (3)
- **HRT 226** Greenhouse Management (3)
- **HRT 275** Landscape Construction and Maintenance (3)
VEN 120  Viticulture I (3)
VEN 121  Viticulture II (3)

Students must complete the above 29 credit hours to be awarded the Career Studies Certificate in Horticulture.

**Industrial Controls**

**Purpose:** This program is designed to provide the knowledge and skills needed for installation, maintenance and repair of advanced technology production equipment.

**Program Learning Outcomes:** Graduates will have fundamental skills for installation and repair of electrical control systems. Graduates will demonstrate proficiency in electrical codes, OSHA criteria, programming system controllers, and system troubleshooting.

- ELE 113-114  Electricity I-II (6)
- ELE 133-134  Practical Electricity I-II (6)
- ELE 138  National Electrical Code (2)
- ELE 239  Programmable Controllers (3)
- ELE 240  Advanced Programmable Logic Controllers (3)
- ETR 141  Electronics I (3)
- ETR 151  Electronic Circuits/Troubleshooting (2)
- ETR 168  Digital Circuits and Fundamentals (3)
- ETR 198  Seminar and Project in Troubleshooting (1)

Students must complete each of the above requirements for a total of 29 credits to be awarded the Career Studies Certificate in Industrial Controls.

**Industrial Maintenance Electronics**

**Purpose:** This program is designed to provide skills and knowledge needed for maintenance and repair of modern production equipment.

**Program Learning Outcomes:** Graduates will have fundamental skills for installation and repair of electrical systems. Graduates will demonstrate proficiency in electrical codes, OSHA criteria, and system troubleshooting.

- ELE 113-114  Electricity I-II (6)
- ELE 133  Practical Electricity I (3)
- ETR 141  Electronics I (3)
- ETR 151  Electronic Circuits/Troubleshooting (2)
- ETR 168  Digital Circuits and Fundamentals (3)
- ETR 198  Seminar and Project in Troubleshooting (1)

Student must complete the above 18 credits to be awarded the Career Studies Certificate in Industrial Maintenance Electronics.

**International Business**

**Purpose:** This program is designed to provide the business professional and entrepreneur with knowledge of international business principles and customs related to business transactions.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate knowledge of the global business concepts and differences among various countries related to business practices.
- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.

- BUS 116  Entrepreneurship (3)
- BUS 280  Introduction to International Business (3)
- GEO 210  People & the Land: Intro. to Cult. Geography (3)
- ITE 115  Intro. to Computer Applications & Concepts (3)
- ITE 130  Introduction to Internet Services (3)
- MKT 100  Principles of Marketing (3)
- MKT 260  Customer Service Management (3)
- MKT 275  International Marketing (3)
- SDV 108  College Survival Skills (1)
- Foreign Language Elective (3)

Student must complete the above 28 credits to be awarded the Career Studies Certificate in International Business.

**Internet Webmaster**

**Purpose:** This program is designed to provide skills and knowledge for employment as a webmaster and certification from CIW as a Certified Internet Webmaster Associate.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate basic knowledge of Internet fundamentals and technologies.
- Demonstrate skills in basic network infrastructure.
- Demonstrate web authoring fundamentals using XHTML.

- CSC 110  Introduction to Computing (3)
- ITE 115  Intro. to Computer Applications & Concepts (3)
- ITE 130  Introduction to Internet Services (3)
- ITE 199  Supervised Study-Certification Exam Preparation (3)
- ITD 110  Web Page Design I (3)
- ITN 101  Introduction to Network Concepts (3)
- SDV 108  College Survival Skills (1)

Student must complete the above 19 credits to be awarded the Career Studies Certificate in Internet Webmaster.
Management Assistant

Purpose: This program is designed to provide an individual with basic foundation management skills in the area of general management principles, human resources, communications, psychology, and accounting.

Program Learning Outcomes: A student will be able to:
• Describe and use general business knowledge and skills, including managerial and supervisory concepts.
• Demonstrate ability to reason critically and problem-solve.
• Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.

ACC 211 Principles of Accounting I (3)
BUS 200 Principles of Management (3)
BUS 205 Human Resource Management (3)
CST 110 Introduction to Communication (3)
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
MKT 260 Customer Service Management (3)
MTH 120 Introduction to Mathematics (3)
SDV 108 College Survival Skills (1)

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Management Assistant.

Manufacturing Technician

BUS 195 Business Ethics (1)
ELE 195 Applications in Motor Control (3)
ETR 115 AC/DC Circuits (3)
[or ELE 195 Applications in Basic Electricity (3)]
[or ELE 195 Mechatronics (3)]
ITE 102 Computers and Information Systems (2)
IND 195 KeyTrain Remediation (1)
IND 195 Systematic Problem Solving (1)
IND 181 World Class Manufacturing (3)
IND 195 Interpreting Engineering Drawings/Hand Tolls/Metrology (2)
ITE 195 TekXam Certification (2)
MEC 195 Applications in Fluid Power (2)
MEC 195 Applications in Mechanical Systems (2)
SAF 195 Industrial Safety (1)
SDV 108 College Survival Skills (1)

Student must complete the above 24 credits to be awarded the Career Studies Certificate in Manufacturing Technician.

Medical Transcription

Purpose: This program is designed to provide skills related to keyboarding, medical office procedures and communications, and the transcription of medical information.

Program Learning Outcomes: A student will be able to:
• Apply medical vocabulary in producing documents used in the health field.
• Document skills in using a keyboard and word processing software for speed and accuracy.

AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 141 Word Processing (3)
AST 154 Introduction to Voice Recognition Software (1)
AST 245 Medical Machine Transcription (2)
AST 271 Medical Office Procedures I (3)
ENG 111 College Composition I (3)
HLT 143 Medical Terminology (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
HIM 143 Managing Electronic Billing in a Medical Practice (2)
SDV 108 College Survival Skills (1)

Student must complete the above 27 credits to be awarded the Career Studies Certificate in Medical Transcription.

Microcomputer Literacy

Purpose: This program is designed to provide basic microcomputer literacy skills (terminology, hardware, Internet, email) and knowledge of a word processing, spreadsheet, database, and presentation software package leading to IC3 certification from Certiport, Inc.

Program Learning Outcomes: A student will be able to:
• Document skills related to fundamentals of computer hardware.
• Document skills related to the fundamentals of computer software, including operating systems, word processing, spreadsheet, presentation, and electronic mail software.
• Document skills related to use of the Internet and networks.

CSC 110 Introduction to Computing (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
ITE 130 Introduction to Internet Services (3)
ITE 150 Desktop Database Software (3)
ITE 199 Supervised Study-Certification Exam Preparation (3)
SDV 108 College Survival Skills (1)

Student must complete the above 16 credits to be awarded the Career Studies Certificate in Microcomputer Literacy.

Motorsports Engine Technology

Purpose: To provide advanced skills and knowledge in the production of high performance engines to meet workforce needs of race teams and engine manufacturers. Students must score 80 points on the PHCC Fundamental Automotive Technology Skills assessment to enter this program. Students determined to have deficiencies in Fundamental Automotive Skills will complete additional course work. Students must maintain a 2.5 Curriculum Grade Point Average to stay in the program. Tools for program are required.

Program Learning Outcomes: Graduates will have fundamental skills for race car component installation and repair. Graduates
will demonstrate proficiency tear-down, component assessment, parts selection, and reassembly of a race engine.

MTS 126 Motorsports Technology II (3)
MTS 140 Stock Car Engines I (3)
MTS 150 Engine Machining Processes I (4)
MTS 195 High Performance Engine Induction Systems (3)
MTS 240 Stock Car Engines II (3)
MTS 250 Engine Machining Processes II (3)
MTS 290 Coordinated Internship (2)
MTS 295 Introduction to Pit Stop (2)
MTS 298 DYNO Engine Performance (3)
SDV 108 College Survival Skills (1)

Student must complete the above 27 credits to be awarded the Career Studies Certificate in Motorsports Engines Technologies.

Motorsports Fabrication and Set Up Technology

Purpose: To provide advanced skills and knowledge in the production of round track race cars to meet workforce needs of race teams. Students must maintain a 2.5 Curriculum Grade Point Average to stay in the program.

Program Learning Outcomes: Graduates will have fundamental skills for race car component installation and repair. Graduates will demonstrate proficiency structural alignment, vehicle set up for prescribed environments, and adjustment to track conditions.

MTS 130 Motorsports Structural Technology (3)
MTS 131 Motorsports Structural Technology II (3)
MTS 132 Motorsports Structural Technology III (3)
MTS 135 Sheet Metal Fabrication (3)
MTS 210 Race Car Setup I (3)
MTS 211 Race Car Setup II (3)
MTS 290 Coordinated Internship (2)
MTS 295 Introduction to Pit Stop (2)
MTS 298 Race Car Setup III (3)
SDV 108 College Survival Skills (1)

Students must complete the above 29 credit hours to be awarded the Career Studies Certificate in Motorsports Fabrication and Set Up Technology.

Motorsports Management

Purpose: This program is designed to give specialized skills related to the management of a motorsports-related business. Students must maintain a 2.5 Curriculum Grade Point Average to stay in the program.

BUS 200 Principles of Management (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
MKT 100 Principles of Marketing (3)
MKT 260 Customer Service Management (3)

MTS 100 Introduction to Motorsports Management (3)
MTS 110 Introduction to Motorsports Marketing (3)
MTS 125 Motorsports Technology I (3)
MTS 190 Coordinated Internship (3)
MTS 298 Projects in Motorsports Marketing (3)
SDV 108 College Survival Skills (1)

Students must complete the above 28 credits to be awarded the Career Studies Certificate in Motorsports Management.

Nurse Aide Training

Purpose: This program is designed to provide skills and knowledge to prepare the student to take the certification test as a certified Nurse Aide in Virginia. Developmental prerequisites are: ENF 1, and ENF 1 and 2 for required HLT class. Students must pass a criminal background check and drug screen to be eligible for clinical experiences.

HCT 101 Health Care Technician I (4)
HCT 102 Health Care Technician II (4)
HCT 110 Therapeutic Communication in the Health Care Setting (3)
HLT 100 First Aid and Cardiopulmonary Resuscitation (3)
ITE 95 Introduction to Microcomputers (2)
SDV 108 College Survival Skills (1)

Financial Requirements: In addition to the usual college tuition and fees, this program requires additional expenses. Approximate costs include:

- $30/$50 – Uniform
- $30+ - Shoes
- $10+ - Watch
- $100 (approximate) – Physical Examination & TB skin test
- $40 – Textbook/Workbook
- $91 – Criminal Background Check (minimum cost)
- $40/$50 – Drug Screen
- $95 – Certification Exam
- Transportation to clinical agencies as required

Student must complete each of the above requirements for a total of 17 credits to be awarded the Career Studies Certificate in Nurse Aide Training.

Office Assisting

Purpose: This program is designed to provide skills in preparation for a job as an office assistant requiring tasks related to keyboarding, records management, office administration, writing, and computer use.

Program Learning Outcomes: A student will be able to:

- Demonstrate proficiency in personal computer operations and applications.
- Demonstrate various methods of filing in storing and retrieving documents both manually and electronically.
- Produce a variety of business documents using correct
grammar, punctuation and spelling in a form acceptable in today’s business environment.

AST 101 Keyboarding I (3)
AST 102 Keyboarding II (3)
AST 113 Keyboarding for Speed and Accuracy (1)
[or AST 154 Introduction to Voice Recognition Software (1)]
AST 141 Word Processing (3)
AST 234 Records and Database Management (3)
AST 243 Office Administration I (3)
ENG 111 College Composition I (3)
ENG 112 College Composition II (3)
ITE 115 Intro. to Computer Applications & Concepts (3)
SDV 108 College Survival Skills (1)
Approved Elective (3)

Student must complete the above 29 credits to be awarded the Career Studies Certificate in Office Assisting.

Pharmacy Technician

**Purpose:** This program is designed to prepare personnel to perform skilled duties and to assist the pharmacist-in-charge. Some examples of job duties include: computer information entry, preparation of prescription labels, assisting the pharmacists in filling prescriptions, ordering pharmaceuticals and supplies, and customer assistance.

Students need to place out of developmental reading and algebra on the college placement test or have successfully completed those courses before registering for any of the required HLT or NUR courses.

Prior to registering for HLT 190, students are required to undergo mandatory drug screening and criminal background checks. Students must have a negative drug screen and criminal background check in order to begin pharmacy tech clinical experiences. The cost of drug screening and criminal background checks are the responsibility of the student. Drug screening cost range from $40-$50 and criminal background screening has a minimum cost of $91.

ITE 95 Introduction to Microcomputers (2)
HCT 110 Therapeutic Communication in Health Care Setting (3)
HLT 190 Coordinated Internship (5)
HLT 143 Medical Terminology (3)
HLT 261 Basic Pharmacy I (3)
HLT 262 Basic Pharmacy II (3)
MTH 126 Math for Allied Health (3)
NUR 135 Drug Dosage Calculations (2)
NUR 230 Pharmacology (3)
SDV 108 College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Pharmacy Technician.

Residential/Commercial/Industrial Electrician

**Purpose:** This program is designed to provide skills for entry-level positions in the practice of electrical servicing.

**Program Learning Outcomes:** Graduates will have fundamental skills for entry level electrical installation and repair. Graduates will demonstrate proficiency in electrical codes, OSHA safety criteria, and wiring circuits.

ELE 113-114 Electricity I-II (6)
ELE 110 Home Electric Power: Residential (3)
ELE 133 Practical Electricity I: Commercial (3)
ELE 134 Practical Electricity II: Industrial (3)
ELE 138 National Electrical Code (2)
ELE 239 Programmable Controllers (3)

Student must complete each of the above classes for a total of 20 credits to be awarded the Career Studies Certificate in Residential/Commercial/Industrial Electrician.

School-Age Child Care

**Purpose:** This program is designed to meet the training needs of students who want to work with school-age children, age 5-12, in before- and after-school programs. The curriculum also offers an organized course of study for those who wish to increase their knowledge and understanding of child development.

**Program Learning Outcome:** Graduates will have fundamental skills for entry level classroom assistance. Graduates will demonstrate proficiency in education methods, instructional technology, presentations, and lesson planning.

CHD 125 Creative Activities (3)
CHD 220 Introduction to School-Age Child Care (3)
CHD 225 Curriculum Development for School-Age Child Care (3)
CHD 230 Behavior Management for School-Age Child Care (3)
CHD 235 Health and Recreation for School-Age Child Care (3)
CHD 270 Administration of Childcare Programs (3)
ENG 111 College Composition I (3)
HLT 100 First Aid and Cardiopulmonary Resuscitation (3)
PSY 135 Child Care Psychology (3)
SDV 108 College Survival Skills (1)

Students must complete the above 28 credit hours to be awarded the Career Studies Certificate in Child Care.
Small Business Management

**Purpose:** This program is designed to provide an entrepreneur with skills in establishing and maintaining a successful small business.

**Program Learning Outcomes:** A student will be able to:
- Explain the importance of entrepreneurial behavior and describe the characteristics of successful entrepreneurs.
- Demonstrate the ability to plan and development of a comprehensive business plan.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ACC 134</td>
<td>Small Business Taxes</td>
<td>(3)</td>
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<tr>
<td>BUS 116</td>
<td>Entrepreneurship</td>
<td>(3)</td>
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<tr>
<td>BUS 160</td>
<td>Legal Aspects for Small Business Operations</td>
<td>(1)</td>
</tr>
<tr>
<td>BUS 165</td>
<td>Small Business Management</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
<td>(3)</td>
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<tr>
<td>FIN 260</td>
<td>Financial Management for Small Business</td>
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<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>(3)</td>
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<tr>
<td>ITE 140</td>
<td>Spreadsheet Software</td>
<td>(3)</td>
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<tr>
<td>MKT 160</td>
<td>Marketing for Small Business</td>
<td>(3)</td>
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<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
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<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
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</tr>
</tbody>
</table>

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Small Business Management.

Supervision

**Purpose:** This program is designed to provide the business professional with skills related to the effective supervision of personnel.

**Program Learning Outcomes:** A student will be able to:
- Describe and use general business knowledge and skills, including managerial and supervisory concepts.
- Demonstrate accepted ethical behaviors and interpersonal skills that reflect an understanding of diversity and teamwork.
- Describe contemporary approaches to management and methods to create a positive work environment.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BUS 111</td>
<td>Principles of Supervision I</td>
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<tr>
<td>BUS 112</td>
<td>Principles of Supervision II</td>
<td>(3)</td>
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<tr>
<td>BUS 200</td>
<td>Principles of Management</td>
<td>(3)</td>
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<tr>
<td>BUS 205</td>
<td>Human Resource Management</td>
<td>(3)</td>
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<td>CST 110</td>
<td>Introduction to Communication</td>
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<tr>
<td>ENG 111</td>
<td>College Composition I</td>
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<tr>
<td>ITE 115</td>
<td>Intro. to Computer Applications &amp; Concepts</td>
<td>(3)</td>
</tr>
<tr>
<td>ITE 130</td>
<td>Introduction to Internet Services</td>
<td>(3)</td>
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<tr>
<td>MKT 260</td>
<td>Customer Service Management</td>
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</tr>
<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>(1)</td>
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</tbody>
</table>

Student must complete the above 28 credits to be awarded the Career Studies Certificate in Supervision.

Theatre Arts

**Purpose:** This program is designed to provide skills specifically related to acting and stage design.

**Program Learning Outcomes:** A student will be able to:
- Demonstrate competency in at least one aspect of theatre acting.
- Demonstrate competency in at least one area related to theatre production.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CST 110</td>
<td>Introduction to Communication</td>
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<tr>
<td>CST 131</td>
<td>Acting I</td>
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<td>CST 132</td>
<td>Acting II</td>
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<tr>
<td>CST 136</td>
<td>Theatre Workshop</td>
<td>(6)</td>
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<tr>
<td>CST 231</td>
<td>History of the Theatre I</td>
<td>(3)</td>
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<tr>
<td>[or CST 130] Introduction to the Theatre (3)</td>
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<tr>
<td>SDV 108</td>
<td>College Survival Skills</td>
<td>(1)</td>
</tr>
</tbody>
</table>

Student must complete the above 19 credits to be awarded the Career Studies Certificate in Theater Arts.

Viticulture

**Purpose:** The purpose of this program is to provide skills and experience that may be applied to a rapidly expanding grape industry in the eastern portion of the country. The grape industry is centered in the western portion of the U.S. and their conditions vary greatly from those in the east. Students will gain insight into conditions and problems that face eastern growers and prepare themselves for jobs as vineyard workers, vineyard managers, winery personnel, and retail sales specialist.

Applicants must meet placement requirements of ENF 3 or above, and MTE 1-3.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEN 100</td>
<td>Introduction to Viticulture</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 110</td>
<td>Vineyard Establishment</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 120</td>
<td>Viticulture I</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 121</td>
<td>Viticulture II</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 125</td>
<td>Vineyard Management</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 130</td>
<td>Introduction to Winemaking</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 135</td>
<td>Wine Production</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 140</td>
<td>Grape Pest and Disease Management</td>
<td>(3)</td>
</tr>
<tr>
<td>VEN 190</td>
<td>Coordinated Internship</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Students must complete the above 27 credits to be awarded the Career Studies Certificate in Viticulture.
Welding

**Purpose:** This program is designed to provide the layman and practitioner fundamental skills and knowledge in metal trades.

**Program Learning Outcomes:** Graduates will have fundamental skills for entry level weld installations. Graduates will demonstrate proficiency in oxyacetylene processes, arc and MIG welding procedures.

- WEL 117 Oxyacetylene Welding and Cutting (3)
- WEL 123 ARC Welding (Basic) (4)
- WEL 124 ARC Welding (Advanced) (4)
- WEL 130 Inert Gas Welding (3)
- WEL 145 Welding Metallurgy (3)
- WEL 150 Welding Drawing and Interpretation (2)

Student must complete each of the 19 credits to be awarded the Career Studies Certificate in Welding.

Wellness

**Purpose:** This program is designed to provide skills related to physical fitness and wellness and an understanding of human development.

**Program Learning Outcomes:** A student will be able to:
- Develop a strategy for lifetime fitness.
- Describe consequences of daily choices related to the development of mind and body.

- HLT 100 First Aid and Cardiopulmonary Resuscitation (3)
- HLT 116 Personal Wellness (3)
- HLT 121 Introduction to Drug Use and Abuse (3)
- HLT 200 Human Sexuality (3)
- HLT 204 Women's Health (3)
- HLT 230 Principles of Nutrition & Human Development (3)
- PED 101 Fundamentals of Physical Activity I (1)
- PED 102 Fundamentals of Physical Activity II (1)
- PED 109 Yoga (1)
- PSY 230 Developmental Psychology (3)
- SDV 108 College Survival Skills (1)

Student must complete the above 25 credits to be awarded the Career Studies Certificate in Wellness.