



# CAREER TECHNICAL EDUCATION

## CAREER TECHNICAL EDUCATION

The Career Technical Education Division is responsible for all non-health related skills training in the College service area. The Division is tasked with offering comprehensive workforce and community development service training to support the needs of the communities served. The Division offers programs of study that lead to Associate in Applied Science (AAS) degrees, long-term certificates, short-term certificates, and certificates of completion.

The Associate in Applied Science degree is awarded to students who complete the requirements of a specific career or professional program of study. These programs of study range from 60 to 76 semester hours in length with approximately 40% of the programs designed to ensure competency in oral and written communication, critical thinking, computer literacy, mathematical principles and/or scientific reasoning. The remaining approximately 60% of the program contains courses designed to ensure competency in a specific career field. Additional information regarding programs of study in career technical fields can be obtained from this catalog or the specific career technical advisor, who is available to assist students in the advising and registration process. Associate in Applied Science degrees are offered in Air Conditioning & Refrigeration Technology; Business Office Management with options in Accounting, Business Management, and Office Administration; Child Development; Computer Science; Drafting Design Engineering Technology; Electrical Systems Technology with specializations in Industrial Plant Technician, Automated Manufacturing, Renewable Energy Technology, Manufacturing Engineering, and Industrial Electronics; Machine Tool Technology; and Vehicle Technology and Repair with options in Automotive Service Excellence, Auto Body Repair, and Diesel Technician.

Long-term certificates are awarded in most programs where the Associate in Applied Science are offered, as well as other career fields where the AAS degree is not offered. Long-term certificates are of varied length from 30 to 60 semester hours depending on the choice of career fields. The general education component of the certificate program contains, as a minimum, three semester hours each in written composition, mathematics, computer literacy skills, and speech. In general, long-term certificates contain most, if not all, of the technical career courses that are required in the Associate in Applied Science degree. Long-term certificates are offered in Air Conditioning & Refrigeration Technology; Business Office Management; Child Development; Cosmetology; Drafting Design Engineering Technology; Electrical Systems Technology; Machine Tool Technology; Vehicle Technology and Repair with options in Automotive Service Excellence, Auto Body Repair, and Diesel Technician; and Welding Technology.

Short-term certificates are available in most career fields where AAS degrees and/or long-term certificates are already offered. The short-term certificates vary in length from 9 to 29 semester hours and are designed to allow the student to acquire career training in a short amount of time. Only minimal academic education requirements are included. Short-term certificates are offered in Automated Manufacturing Technology; Barbering; Child Development; Computerized Numerical Control; Computer Science with options in Information Technology and A+ Certification; Cosmetology Instructor; Electrical Systems Technology; Industrial Electronics Technician; Industrial Plant Technician; Machine Tool Technology; Manufacturing Engineering; Mining Technology; Renewable Energy Technology; Truck Driver Training; Vehicle Technology and Repair; and Welding Technology. In addition, certificates of completion are offered through the Center for Financial Training-Alabama in General Banking and Bank Operations.

Career Technical students are also given the opportunity to participate in the CO-OP/Internship program. The CO-OP/ Internship program is designed to be an organized and planned work experience for the purpose of extending training to a student in his/her chosen career path, while at the same time providing the participating business with additional part-time personnel. A student is only eligible for an internship after meeting specific program prerequisites. The required amount of internship training time varies for individual programs and follows the semester schedule of the College. The student is interviewed by the prospective employer, and if hired as an intern, is expected to follow procedures and policies of the company. Students who are interested in participating in the CO-OP/Internship program should contact their program advisor.

Programs of study within the Career Technical Division require specific essential mental and physical capabilities if the student is to be successful. Essential functions for each Career Technical program of study are available in each career technical instructor's office and the Bevill State website - [www.bscc.edu](http://www.bscc.edu).

## ATTENDANCE POLICY

Class attendance is considered an essential part of the educational process at Bevill State. The College subscribes to the philosophy that a student's academic progress is directly proportional to class attendance. Class attendance will be recorded from the first day of the student's official enrollment. Bevill State expects students to participate in all scheduled instructional classes and laboratory periods, regardless of the mode of delivery. Students are expected to be in class on time and to attend a minimum of 90% of the total class contact hours, including laboratory hours, for each course to be eligible to receive a passing grade. The instructor should inform the students how many absences this would mean for a specific class. If it becomes necessary for a student to withdraw from a course or from the College, it is the student's responsibility to complete the College's approved withdrawal process. If a student exceeds the 10% limit on absences, the instructor may: (1) withdraw the student from the class with a grade of "W" if the withdrawal occurs before mid-term; (2) withdraw the student after mid-term from the class with a grade of either "WP" if passing or "WF" if failing; or (3) examine any extenuating circumstances and allow the student to continue the class and make up the work.

Each student should be punctual. It is an interruption to the class for a student to arrive late. Instructors have the discretion to consider a late arrival or early departure, without the permission of the instructor, as an absence or some percentage counting toward an absence. For example, a faculty member may consider a late arrival as 1/3 of an absence.

It is recognized that from time to time, extenuating circumstances may prevent a student from being able to attend a class. If the student misses a test or in-class assignment because of such an absence, makeup assignments may be given at the instructor's discretion. It is the student's responsibility to inquire about making up the work missed during any absence. However, there is no requirement that the instructor provide the opportunity for a makeup.

The following guidelines are provided for instructors who are willing to extend an opportunity for makeup work for absences resulting from extenuating circumstances.

1. Absences that occur because of emergencies (e.g., accidents, illness, court appearance, or death of an immediate family member) will be excused with proper notification to the instructor. Proper notification requires documentation as determined by the instructor. Examples include a copy of an accident report, a

hospital admittance form, a doctor's excuse, subpoena or a death announcement. When possible, the student or appropriate representative of the student (doctor, lawyer, hospital official, parent, spouse, etc.) should provide notification prior to the class that is to be missed.

2. Absences that occur as a result of Federal or State statutes will be excused upon proper notification to the instructor. Proper notification requires documentation as determined by the instructor.

## CAREER TECHNICAL EDUCATION PROGRAMS

### AIR-CONDITIONING & REFRIGERATION TECHNOLOGY (ACR)

Heating and air-conditioning systems control the temperature, humidity, and the total air quality in residential, commercial, industrial, and other buildings. By providing a climate controlled environment, refrigeration systems make it possible to store and transport food, medicine, and other perishable items. Heating, Air-conditioning, and Refrigeration Technicians install, maintain, and repair such systems. Because heating, ventilation, air-conditioning, and refrigeration systems often are referred to as HVACR systems, these workers also may be called HVACR technicians. The Air Conditioning and Refrigeration program at Bevill State is designed to teach basic theories and provide a working knowledge of air conditioning and heating for both comfort and environmental considerations. Graduates will be able to enter the fields of planning, installing, operating, and maintaining all types of heating, air conditioning and refrigeration equipment. The program is approved by the Alabama Board of Heating, Air Conditioning, and Refrigeration for the Alabama Contractor's License Exam.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

### ASSOC IN APPLIED SCIENCE DEGREE (ACR)

	<u>Semester Hours</u>
ORI 107, Student Survival Skills	1

#### Field of Study Courses

ACR 111, Principles of Refrigeration	3
ACR 112, HVACR Service Procedures	3
ACR 113, Refrigeration Piping Practices	3
ACR 119, Fundamentals of Gas Heating Systems	3
ACR 121, Principles of Electricity for HVACR	3
ACR 122, HVACR Electrical Circuits	3
ACR 123, HVACR Electrical Components	3
ACR 128, Heat Load Calculations	3
ACR 132, Residential Air Conditioning	3
ACR 135, Mechanical/Gas Safety Codes	3
ACR 147, Refrigeration Transition and Recovery Theory	3
ACR 148, Heat Pumps Systems I	3
ACR 203, Commercial Refrigeration	3
Total Field of Study Credits	<b>39</b>

#### Field of Study Electives

Select 4 courses from the following offerings:

ACR 120, Fundamentals of Electric Heating Systems	3
ACR 126, Commercial Heating Systems	3
ACR 127, HVACR Electric Motors	3
ACR 133, Domestic Refrigeration	3
ACR 134, Ice Machines	3
ACR 144, Basic Drawing and Blueprint Reading in HVAC	3
ACR 192, HVAC Apprenticeship/Internship	3
ACR 200, Review for Contractors Exam	3
ACR 209, Commercial Air Conditioning Systems	3
ACR 210, Troubleshooting HVACR Systems	3

Total Field of Study Electives	<b>12</b>
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### General Studies Courses

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>21</b>
<b>Total Credits</b>	<b>73</b>

### LONG-TERM CERTIFICATE (ACR)

	<u>Semester Hours</u>
ORI 107, Student Survival Skills	1

#### Field of Study Courses

ACR 111, Principles of Refrigeration	3
ACR 112, HVACR Service Procedures	3
ACR 113, Refrigeration Piping Practices	3
ACR 119, Fundamentals of Gas Heating Systems	3
ACR 121, Principles of Electricity for HVACR	3
ACR 122, HVACR Electrical Circuits	3
ACR 123, HVACR Electrical Components	3
ACR 128, Heat Load Calculations	3
ACR 132, Residential Air Conditioning	3
ACR 147, Refrigeration Transition and Recovery Theory	3
ACR 148, Heat Pumps Systems I	3
Total Field of Study Credits	<b>33</b>

#### Field of Study Electives

Select 3 courses from the following offerings:

ACR 120, Fundamentals of Electric Heating Systems	3
ACR 126, Commercial Heating Systems	3
ACR 127, HVACR Electric Motors	3
ACR 133, Domestic Refrigeration	3
ACR 134, Ice Machines	3
ACR 144, Basic Drawing and Blueprint Reading in HVAC	3
ACR 192, HVAC Apprenticeship/Internship	3
ACR 200, Review for Contractors Exam	3
ACR 209, Commercial Air Conditioning Systems	3
ACR 210, Troubleshooting HVACR Systems	3
Total Elective Credits	<b>9</b>

### General Studies Courses

ENG 101, English Composition I	3
MTH 116, Mathematical Applications (or higher level)	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>55</b>

### AUTOMATED MANUFACTURING TECHNOLOGY (AUT)

This program prepares students to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacturing of products. Automated Manufacturing is one of Alabama's fast-growing, occupational fields. Positions exist both in automobile manufacturing plants and in many supplier organizations statewide. The skills taught in this program are highly portable and transferable to other sectors which demand high-tech, multi-skilled abilities in automated manufacturing. Bevill State is

a member of the Consortium for the Alabama Regional Center for Automotive Manufacturing (CARCAM). CARCAM's goal is to assist the growing automotive industry in Alabama with the development of a modern, highly skilled workforce. Students are advised to enter the Associate of Applied Science (A.A.S.) degree in Electrical Technology and take the automated manufacturing courses as an option in the degree plan.

*Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Automated Manufacturing Technology program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf). (Occupational Outlook Handbook)*

**NOTE:** Check with an advisor for program and course location by campus.

### **SHORT-TERM CERTIFICATE (AUT)**

ORI 107, Student Survival Skills	1
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#### **Core Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 108, Motor Controls I	3
INT 117, Principles of Industrial Mechanics	3
AUT 102, Manufacturing Fundamentals	3
AUT 116, Introduction to Robotics	3
AUT 117, AC/DC Machines	3
AUT 131, Fluid Power	3
AUT 150, Introduction to Machine Shop	3
<b>Total Credits</b>	<b>28</b>

### **BARBERING (BAR)**

Barbering is a program which prepares individuals to shave and trim facial/neck hair and beards, cut and dress hair, fit hair pieces, give facial and scalp massages, aly cosmetic treatments, and to prepare for licensure as professional barbers at various levels. This program includes instruction in facial shaving; beard and mustache shaping and trimming; shampooing; hair cutting; hair styles and styling art; facial treatments and massage; chemical applications; hair and scalp anatomy and physiology; hairpiece and toupee fitting; equipment operation; health and safety; customer service; and shop business practices. Upon completion of the program, students should meet the state board requirements for taking the examination for barbering licensure.

(Occupational Outlook Handbook)

*Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Barbering program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf).*

**NOTE:** Check with an advisor for program and course location by campus.

### **LONG-TERM CERTIFICATE (BAR)**

ORI 107, Student Survival Skills	1
COM 100, Vocational Technical English	3
MAH 101, Introductory Mathematics I	3
DPT 103, Introductory Computer Skills I	3
SPC 103, Oral Communication Skills	3
<b>Total General Studies Credits</b>	<b>13</b>

#### **Field of Concentration Courses**

BAR 108, Introduction to Barbering	3
BAR 111, Introduction to Barbering Lab	3
BAR 112, Science of Barbering	3
BAR 113, Fundamentals of Barbering Applications	3
BAR 143, State Board Review	3
Specialization Electives (Advisor Approved)	27
<b>Total Field Concentration Credits</b>	<b>42</b>
<b>Total Credits</b>	<b>55</b>

### **BUSINESS OFFICE MANAGEMENT (BOM)**

The purpose of this program is to prepare students with the knowledge and skills for entry into a variety of positions in today's fast-paced, business office environment. Office and Administrative Support Supervisors and Managers plan or supervise support staff to ensure that they can work efficiently. After allocating work assignments and issuing deadlines, office and administrative support supervisors and managers oversee the work to ensure that it is proceeding on schedule and meeting established quality standards.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

**NOTE:** Students must have successfully completed specific OAD courses within the last seven (7) years to receive credit toward a certificate or degree. Contact a BOM advisor about the specific course(s) that can be accepted.

### **ASSOC IN APPLIED SCIENCE DEGREE (BOM)**

ORI 107, Student Survival Skills	1
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#### **Field of Study Courses**

BUS 105, Customer Service	3
BUS 241, Principles of Accounting I	3
OAD 131, Business English	3
OAD 133, Business Communications	3
OAD 232, The Computerized Office	3
<b>Total Field of Study Credits</b>	<b>15</b>

**Select one of the following three options:**

#### **ACCOUNTING OPTION (ACT)**

ACT 246, Microcomputer Accounting	3
ACT 249, Payroll Accounting	3
ACT 253, Individual Income Tax	3
BUS 146, Personal Finance	3
BUS 242, Principles of Accounting II	3
BUS 263, Legal & Social Environment of Business	3
BUS 275, Principles of Management	3
ECO 231, Principles of Macroeconomics	3
<b>Total Concentration Credits</b>	<b>24</b>

#### **BUSINESS/MANAGEMENT OPTION (MKT)**

BUS 175, Retailing	3
BUS 242, Principles of Accounting II	3
BUS 263, Legal & Social Environment of Business	3
BUS 275, Principles of Management	3
BUS 276, Human Resource Management	3
BUS 279, Small Business Management	3
BUS 285, Principles of Marketing	3
ECO 231, Principles of Macroeconomics	3
<b>Total Concentration Credits</b>	<b>24</b>

#### **OFFICE ADMINISTRATION OPTION (OFF)**

ACT 249, Payroll Accounting	3
BUS 263, Legal & Social Environment of Business	3
OAD 103, Intermediate Keyboarding	3
OAD 138, Records/Information Management	3
OAD 200, Machine Transcription	3
OAD 202, Legal Transcription	3
OAD 211, Medical Terminology	3
OAD 212, Medical Transcription	3
<b>Total Concentration Credits</b>	<b>24</b>

<b>General Studies Courses</b>	
ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 100, Intermediate College Algebra or MTH 116, Mathematical Applications (or higher)	3
CIS 146, Microcomputer Applications	3
CIS 286, Computerized Management Info Systems (Excel)	3
ECO 232, Principles of Microeconomics	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>21</b>
<b>Total Credits</b>	<b>61</b>

<b>LONG-TERM CERTIFICATE (BOM)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1
<b>Core Courses</b>	
ACT 249, Payroll Accounting	3
BUS 105, Customer Service	3
BUS 241, Principles of Accounting I	3
CIS 286, Computerized Management Info Systems (Excel)	3
OAD 103, Intermediate Keyboarding	3
OAD 232, The Computerized Office	3
Total Field of Study Credits	<b>18</b>

**Select five of the following courses:**

ACT 246, Microcomputer Accounting	3
ACT 253, Individual Income Tax	3
BUS 146, Personal Finance	3
BUS 242, Principles of Accounting II	3
BUS 263, Legal & Social Environment of Business	3
BUS 275, Principles of Management	3
OAD 133, Business Communications	3
OAD 138, Records/Information Management	3
OAD 200, Machine Transcription	3
OAD 202, Legal Transcription	3
OAD 211, Medical Terminology	3
OAD 212, Medical Transcription	3
Total Concentration Credits	<b>15</b>

<b>General Studies Courses</b>	
ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 100, Intermediate College Algebra or MTH 116, Mathematical Applications (or higher)	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>46</b>

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### **CHILD DEVELOPMENT (CHD)**

The Child Development program is designed to prepare students for employment as directors, teachers, or aides in preschools and day cares; aides in public schools, and teachers or aides in the Head Start Program. Courses in the program are designed to meet the State of Alabama minimum standards for Day Care Facilities and Preschools along with the national certification, Child Development Associate. All students enrolled in the Child Development program will require a criminal background check prior to enrollment. The cost of the background check will be the responsibility of the student. Issues pertaining to or resulting in positive findings in the background check will result in the student being denied enrollment (Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

<b>ASSOC IN APPLIED SCIENCE DEGREE (CHD)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

<b>Field of Study Courses</b>	
CHD 100, Intro to Early Care & Ed of Children	3
CHD 201, Child Growth and Dev. Principles	3
CHD 202, Children's Creative Experiences	3
CHD 203, Children's Literature & Language Development	3
CHD 204, Methods & Materials for Teaching Children	3
CHD 205, Program Planning for Educ Young Children	3
CHD 206, Children's Health and Safety	3
CHD 209, Infant & Toddler Education Programs	3
CHD 210, Educating Exceptional Young Children	3
CHD 214, Families & Communities in Early Care & Educ Prog	3
CHD 215, Supervised Prac Exp, Early Childhood Education	3
BUS 275, Principles of Management or BUS 279, Small Business Management	3
EMS 103, First Aid CPR and AED or current infant-child CPR and first aid certification	1
Total Field of Study Credits	<b>37</b>

<b>General Studies Courses</b>	<b>Semester Hours</b>
ENG 101, English Composition I	3
Humanities/Fine Arts Elective	3
SPH 106, Fundamentals of Oral Communication	3
MTH 116, Mathematical Applications (or higher level)	3
PSY 200, General Psychology	3
Natural Science Elective	4
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>22</b>
<b>Total Credits</b>	<b>60</b>

<b>LONG-TERM CERTIFICATE (CHD)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

<b>Field of Study Courses</b>	
CHD 100, Intro to Early Care & Ed of Children	3
CHD 201, Child Growth and Dev. Principles	3
CHD 202, Children's Creative Experiences	3
CHD 203, Children's Literature & Language Development	3
CHD 204, Methods & Materials for Teaching Children	3
CHD 205, Program Planning for Educ Young Children	3
CHD 206, Children's Health and Safety	3
CHD 214, Families & Communities in Early Care & Educ Prog	3
CHD 215, Supervised Prac Exp, Early Childhood Education	3
EMS 103, First Aid CPR and AED or current infant-child CPR and first aid certification	1
Total Field of Study Credits	<b>28</b>

<b>General Studies Courses</b>	<b>Semester Hours</b>
ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>41</b>

<b>SHORT-TERM CERTIFICATE (CHD)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

<b>Field of Study Courses</b>	
CHD 100, Intro to Early Care & Educ of Children	3
CHD 201, Child Growth and Dev. Principles	3
CHD 202, Children's Creative Experiences	3

CHD 203, Children's Literature & Language Development	3
CHD 204, Methods & Materials for Teaching Children	3
CHD 205, Program Planning for Educ Young Children	3
CHD 206, Children's Health and Safety	3
CHD 215, Supervised Prac Exp, Early Childhood Educ	3
EMS 103, First Aid CPR and AED or current infant-child CPR and first aid certification	1
Total Field of Study Credits	<b>25</b>
<b>Total Credits</b>	<b>26</b>

### COMPUTER SCIENCE (IT)

Information Technology has become an integral part of modern life. Among its most important functions are the efficient transmission of information and the storage and analysis of information. Computer Network Technicians set up, test, and evaluate systems such as local area networks (LANs), wide area networks (WANs), the Internet, intranets, and other data communications systems. Systems are configured in many ways and can range from a connection between two offices in the same building to globally distributed networks, voice mail, and e-mail systems of a multinational organization. IT Technicians perform network modeling, analysis, and planning, which often require both hardware and software solutions. For example, setting up a network may involve the installation of several pieces of hardware, such as routers and hubs, wireless adaptors, and cables, as well as the installation and configuration of software, such as network drivers. They may also research related products and make necessary hardware and software recommendations and address information security issues.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

<b>ASSOC IN APPLIED SCIENCE DEGREE (IT)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

#### Field of Study Courses

OAD 131, Business English or ENG 102, English Comp II	3
OAD 133, Business Communications	3
CIS 146, Microcomputer Applications (CORE)	3
CIS 147, Advanced Microcomputer Applications	3
CIS 150, Intro to Computer Logic and Programming (CORE)	3
CIS 161, Intro to Network Communication (CORE)	3
CIS 207, Introduction to Web Development	3
CIS 208, Web Authoring Software	3
CIS 209, Advanced Web Development	3
CIS 222, Database Management Systems	3
CIS 249, Microcomputer Operating Systems	3
CIS 268, Software Support (CORE)	3
CIS 269, Hardware Support (CORE)	3
Total Field of Study Credits	<b>39</b>

#### Field of Study Electives

**Select 6 credit hours from the following offerings:**

CIS 155 Intro to Mobile App Development	3
CIS 171 Linux I	3
CIS 245 Cyber Defense	3
CIS 251, C++ Programming	3
CIS 281, System Analysis and Design	3
CIS 284, CIS Internship	3
CIS 285, Object Oriented Programming	3
CIS 286, Computerized Management Info Systems (EXCEL)	3
Total Electives Credits	<b>6</b>

#### General Studies Courses

ENG 101, English Composition I	3
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SPH 106, Fundamentals of Oral Communication or	
SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>15</b>
<b>Total Credits</b>	<b>61</b>

### SHORT-TERM CERTIFICATE (IT)

#### Semester Hours

ORI 107, Student Survival Skills	1
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#### Field of Study Courses

CIS 146, Microcomputer Applications	3
CIS 150, Intro to Computer Logic and Programming	3
CIS 161, Intro to Network Communication	3
CIS 268, Software Support	3
CIS 269, Hardware Support	3
Total Field of Study Credits	<b>15</b>

#### Field of Study Electives

**Select 9 credit hours from the following offerings:**

CIS 147, Advanced Microcomputer Applications	3
CIS 155 Intro to Mobile App Development	3
CIS 171 Linux I	3
CIS 207, Introduction to Web Development	3
CIS 208, Web Authoring Software	3
CIS 209, Advanced Web Development	3
CIS 222, Database Management Systems	3
CIS 245 Cyber Defense	3
CIS 249, Microcomputer Operating Systems	3
CIS 251, C++ Programming	3
CIS 281, System Analysis and Design	3
CIS 285, Object Oriented Programming	3
CIS 286, Computerized Management Info Systems (EXCEL)	3
Total Electives Credits	<b>9</b>
<b>Total Credits</b>	<b>25</b>

### A+ CERTIFICATION TRAINING (A+)

ORI 101, Orientation	1
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#### Field of Study Courses

CIS 249, Microcomputer Operating Systems	3
CIS 268, Support Software	3
CIS 269, Support Hardware	3
Total Field of Study Credits	<b>9</b>
<b>Total Credits</b>	<b>10</b>

### COSMETOLOGY (COS)

Cosmetologists provide hair care services to enhance a customer's appearance. In addition, manicurists and pedicurists, shampooers, and skin care specialists provide specialized beauty services that help clients look and feel their best. Cosmetologists often keep records of hair color or skin care regimens used by their regular customers. A growing number of cosmetology shops actively sell hair, skin, and nail care products. Cosmetologists who operate their own salons have managerial duties that may include hiring, supervising, and firing workers, as well as keeping business and inventory records, ordering supplies, and arranging for advertising.

(Occupational Outlook Handbook)

Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Cosmetology program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf).

**NOTE:** Check with an advisor for program and course location by campus.

**LONG-TERM CERTIFICATE (COS)** **Semester Hours**

ORI 101, Orientation	1
<b>Field of Study Courses</b>	
COS 111/BAR 110, Introduction to Cosmetology	3
COS 112/BAR 113, Introduction to Cosmetology Lab	3
COS 113/BAR 120, Theory of Chemical Services	3
COS 114/BAR 121, Chemical Services Lab	3
COS 115/BAR 122, Hair Coloring Theory	3
COS 116/BAR 124, Hair Coloring Lab	3
COS 117, Basic Spa Techniques	3
COS 118, Basic Spa Techniques Lab	3
COS 167, State Board Review	3
Total Field of Study Credits	<b>27</b>

**Field of Study Electives**

**Select 5 courses from the following offerings:**

BAR 115, Hair Cutting Techniques	3
COS 119/BAR 130, Business of Cosmetology	3
COS 123, Cosmetology Salon Practices	3
COS 137, Hair Shaping and Design Theory	3
COS 141, Applied Chemistry for Cosmetology	3
COS 142, Applied Chemistry for Cosmetology	3
COS 145, Hair Shaping Lab	3
COS 148, Nail Care Theory	3
COS 149, Nail Art Theory	3
COS 152, Nail Care Applications	3
COS 154, Nail Art Applications	3
COS 162, Special Topics	3
COS 166, Skin Care Bacteriology and Sanitation	3
COS 181, Special Topics	3
COS 182, Special Topics	3
COS 190, Internship in Cosmetology	3
COS 191, Co-op Work Experience	3
Total Electives Credits	<b>15</b>

**General Studies Courses**

COM 100, Vocational Technical English I	3
MAH 101, Introductory Mathematics I	3
DPT 103, Introductory Computer Skills I	3
SPC 103, Oral Communication Skills	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>55</b>

**COSMETOLOGY INSTRUCTOR TRAINING (CIT)**

Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Cosmetology Instructor Training program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf).

**SHORT-TERM CERTIFICATE (CIT)**

ORI 107, Student Survival Skills	1
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**Field of Study Courses**

CIT 211, Teaching and Curriculum Development	3
CIT 212, Teaching Mentorship	3
CIT 213, Lesson Plan Development	3
CIT 221, Lesson Plan Implementation	3
CIT 222, Instructional Materials and Methods	3
CIT 223, Instructional Materials and Methods Applications	3
COS 167, State Board Review	3
Total Field of Study Credits	<b>21</b>

**General Studies Courses**

COM 100, Vocational Technical English I	3
MAH 101, Introductory Mathematics I	3
Total General Studies Credits	<b>6</b>
<b>Total Credits</b>	<b>28</b>

**DRAFTING DESIGN ENGINEERING TECHNOLOGY (DDT)**

Drafting Design Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing and architectural design. Many technicians assist engineers. Other technicians work in quality control, product inspection, testing, or data collection. In manufacturing, they may assist in product design or development. Today's technicians often use computer-aided design and drafting (CADD) equipment. Bevill State's program prepares students for entry into the workplace where engineering design and planning meet production. The technician provides the essential link between engineering and manufacturing. (Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

**ASSOC IN APPLIED SCIENCE DEGREE (DDT)** **Semester Hours**

ORI 107, Student Survival Skills	1
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**Field of Study Courses**

DDT 104, Basic Computer Aided Drafting	3
DDT 111, Fundamentals of Drafting & Design Technology	3
DDT 124, Basic Technical Drawing	3
DDT 127, Intermediate Computer Aided Drafting & Design	3
DDT 128, Intermediate Technical Drawing	3
DDT 131, Machine Drafting Basics	3
DDT 211, Intermediate Machine Drafting	3
Total Field of Study Credits	<b>21</b>

**Field of Study Electives**

**Select 27 credit hours from the following offerings:**

DDT 115, Blueprint Reading for Machinists	3
DDT 116, Blueprint Reading for Construction	3
DDT 117, Manufacturing Processes	3
DDT 118, Basic Electrical Drafting	3
DDT 130, Fundamentals of Drafting for Related Trades	3
DDT 132, Architectural Drafting	3
DDT 133, Basic Surveying	3
DDT 134, Descriptive Geometry	3
DDT 139, Fundamentals of Drafting for Related Trades Lab	3
DDT 144, Basic 3D Modeling	3
DDT 150, Theory of Residential Drawing and Design	3
DDT 181, Special Topics in Drafting and Design	3
DDT 182, Special Topics in Drafting and Design	3
DDT 183, Special Topics in Drafting and Design	3
DDT 191, Drafting Internship	1
DDT 192, Drafting Internship	2
DDT 193, Drafting Internship	3
DDT 212, Intermediate Architectural Drafting	3
DDT 213, Civil Drafting Plat Maps	3
DDT 214, Pipe Drafting	3
DDT 215, Geometric Dimensioning and Tolerance	3
DDT 216, Design of Structural Wood Members	3
DDT 220, Advanced Technical Drawing	3
DDT 222, Advanced Architectural Drawing	3
DDT 224, Structural Concrete Drafting	3
DDT 225, Structural Steel Drafting	3
DDT 226, Technical Illustration	3
DDT 227, Strength of Materials	4

DDT 231, Advanced CAD	3
DDT 233, Intermediate 3D Modeling	3
DDT 235, Specialized CAD	3
DDT 236, Design Projects	3
DDT 237, Current Topics in CAD	3
DDT 238, Special Topics in CAD	3
DDT 244, Advanced 3D Modeling	3
DDT 260, Portfolio	3
Total Electives Credits	<b>27</b>

### General Studies Courses

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>21</b>
<b>Total Credits</b>	<b>70</b>

### LONG-TERM CERTIFICATE (DDT)

### Semester Hours

ORI 107, Student Survival Skills	1
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### Field of Study Courses

DDT 104, Basic Computer Aided Drafting	3
DDT 111, Fundamentals of Drafting & Design Technology	3
DDT 124, Basic Technical Drawing	3
DDT 127, Intermediate Computer Aided Drafting & Design	3
DDT 128, Intermediate Technical Drawing	3
DDT 131, Machine Drafting Basics	3
DDT 211, Intermediate Machine Drafting	3
Total Field of Study Credits	<b>21</b>

### Field of Study Electives

Select 15 credit hours from the following offerings:

DDT 115, Blueprint Reading for Machinists	3
DDT 116, Blueprint Reading for Construction	3
DDT 117, Manufacturing Processes	3
DDT 118, Basic Electrical Drafting	3
DDT 130, Fundamentals of Drafting for Related Trades	3
DDT 132, Architectural Drafting	3
DDT 133, Basic Surveying	3
DDT 134, Descriptive Geometry	3
DDT 139, Fundamentals of Drafting for Related Trades Lab	3
DDT 144, Basic 3D Modeling	3
DDT 150, Theory of Residential Drawing and Design	3
DDT 181, Special Topics in Drafting and Design	3
DDT 182, Special Topics in Drafting and Design	3
DDT 183, Special Topics in Drafting and Design	3
DDT 191, Drafting Internship	1
DDT 192, Drafting Internship	2
DDT 193, Drafting Internship	3
DDT 212, Intermediate Architectural Drafting	3
DDT 213, Civil Drafting Plat Maps	3
DDT 214, Pipe Drafting	3
DDT 215, Geometric Dimensioning and Tolerance	3
DDT 216, Design of Structural Wood Members	3
DDT 220, Advanced Technical Drawing	3
DDT 222, Advanced Architectural Drawing	3
DDT 224, Structural Concrete Drafting	3
DDT 225, Structural Steel Drafting	3
DDT 226, Technical Illustration	3
DDT 227, Strength of Materials	4

DDT 231, Advanced CAD	3
DDT 233, Intermediate 3D Modeling	3
DDT 235, Specialized CAD	3
DDT 236, Design Projects	3
DDT 237, Current Topics in CAD	3
DDT 238, Special Topics in CAD	3
DDT 244, Advanced 3D Modeling	3
DDT 260, Portfolio	3
Total Electives Credits	<b>15</b>

### General Studies Courses

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>49</b>

### ELECTRICAL SYSTEMS TECHNOLOGY (ELT)

Electrical Technicians install and maintain all of the electrical and power systems for homes, businesses, and manufacturers. They install and maintain the wiring and control equipment through which electricity flows. Technicians also install, calibrate, and maintain electrical equipment in a wide range of fields. Imagine an automated manufacturing line: a large conveyor system moves unfinished products down the line, robotic welding arms bond the different parts together, and hydraulic lifts move the finished products. All these complex machines need technicians to install and service them to make sure they function properly. Job opportunities for electrical technicians may include residential and commercial wiring, industrial plant operations, automated manufacturing, renewable energy resources, manufacturing engineering, and industrial electronics.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program option and course location by campus.

### ASSOC IN APPLIED SCIENCE DEGREE

### Semester Hours

ORI 107, Student Survival Skills	1
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### Core Courses

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 104, Digital Fundamentals	3
ETC 107, Electrical Blueprint Reading I	3
ETC 108, Motor Controls I	3
INT 184, Introduction to Programmable Logic Controllers	3
Total Core Credits	<b>18</b>

Select two of the following six options:

### ELECTRICAL OPTION (ELT)

ELT 110, Wiring Methods	3
ELT 114, Residential Wiring	3
ELT 118, Commercial/Industrial Wiring I	3
ELT 221, Electronics for Electricians	3
ELT 241, National Electric Code	3
ELT 244, Conduit Bending and Installation	3

### INDUSTRIAL PLANT TECHNICIAN OPTION (INT)

AUT 117, AC/DC Machines	3
INT 117, Fundamentals of Industrial Mechanics	3
INT 118, Hydraulics and Pneumatics	3



INT 126, Preventative Maintenance	3
INT 134, Principles of Industrial Maint. Welding & Metal Cutting	3
ELT 212, Motor Controls II	3

**AUTOMATED MANUFACTURING OPTION (AUT)**

INT 117, Fundamentals of Industrial Mechanics	3
AUT 102, Manufacturing Fundamentals	3
AUT 104, Blueprint Reading for Manufacturing	3
AUT 116, Introduction to Robotics	3
AUT 131, Fluid Power	3
AUT 150, Introduction to Machine Shop I	3

**MANUFACTURING ENGINEERING OPTION (IST)**

ILT 103, Introduction to Instrumentation Technology	3
ILT 108, Introduction to Instruments and Process Control	3
ILT 110, Advanced Industrial Process Control Technology	3
ILT 114, Instrumentation and Operation and Calibration	3
ILT 214, Control and Troubleshooting Flow, Level, Pressure and Level Processes	3
ELT 221, Electronics and Electricians	3

**INDUSTRIAL ELECTRONICS OPTION (ILT)**

ILT 135, Local Area Networks (LANS)	3
ILT 139, Introduction to Robotic Programming	3
ILT 165, Industrial Electronic Controls I	3
ILT 195, Troubleshooting Techniques I	3
ILT 196, Advanced Programmable Logic Controllers	3
ILT 235, Principles of Robotic Systems	3
Total Options Credits	<b>36</b>

**General Studies Courses**

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>21</b>
<b>Total Credits</b>	<b>76</b>

**LONG-TERM CERTIFICATE (ELT)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Field of Study Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 107, Electrical Blueprint Reading I	3
ETC 108, Motor Controls I	3
ELT 110, Wiring Methods	3
ELT 114, Residential Wiring	3
ELT 117, AC/DC Machines	3
ELT 118, Commercial/Industrial Wiring I	3
ELT 221, Electronics for Electricians	3
ELT 241, National Electric Code	3
ELT 244, Conduit Bending and Installation	3
INT 117, Fundamentals of Industrial Mechanics	3
INT 118, Hydraulics and Pneumatics	3
Total Field of Study Credits	<b>39</b>

**General Studies Courses**

ENG 101, English Composition I	<b>Semester Hours</b> 3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3

MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>52</b>

**SHORT-TERM CERTIFICATE (ELT)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Core Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 107, Electrical Blueprint Reading I	3
ETC 108, Motor Controls I	3
ELT 110, Wiring Methods	3
ELT 114, Residential Wiring	3
ELT 118, Commercial/Industrial Wiring I	3
ELT 241, National Electric Code	3
ELT 244, Conduit Bending and Installation	3
Total Field of Study Credits	<b>27</b>
<b>Total Credits</b>	<b>28</b>

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**INDUSTRIAL ELECTRONICS TECHNICIAN (ILT)**

Businesses depend on complex electronic equipment for a variety of functions. Industrial controls automatically monitor and direct production processes on the automated manufacturing floor. Electrical and electronic equipment are two distinct types of industrial equipment, although a great deal of equipment contains both electrical and electronic components. In general, electrical parts provide power for the equipment; whereas, electronic components control the device. Some industrial electronic equipment is self-monitoring and alerts technicians to malfunctions. When equipment breaks down, technicians first check for the common cause, such as loose connections or obviously defective components. If routine checks do not locate the trouble, they may refer to schematics and manufacturers' specifications that show connections and provide instructions on how to trace problems. Automated electronic control systems are becoming increasingly complex, making diagnosis more challenging. With these systems, technicians use software programs and testing equipment to diagnose malfunctions.

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**NOTE:** Check with an advisor for program and course location by campus.

**SHORT-TERM CERTIFICATE (ILT)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Core Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ILT 135, Local Area Networks (LANS)	3
ILT 139, Introduction to Robotic Programming	3

ILT 165, Industrial Electronic Controls I	3
ILT 195, Troubleshooting Techniques I	3
ILT 235, Principles of Robotic Systems	3
INT 118, Fundamentals of Industrial Hydraulics and Pneumatics	3
INT 184, Introduction to Programmable Logic Controllers	3
Total Core Credits	27
<b>Total Credits</b>	<b>28</b>

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### INDUSTRIAL MECHANICAL MAINTENANCE TECHNOLOGY (INT)

Industrial Plant Technicians install and maintain manufacturing equipment. Technicians must be able to detect minor problems and correct them before they become larger problems. Industrial Plant Technicians use technical manuals, their understanding of the equipment, and careful observation to discover the cause of the problem. For example, after hearing a vibration from a machine, the technician must decide whether it is due to worn belts, weak motor bearings, or some other problem. Technicians are prepared to use computerized diagnostic systems and vibration analysis equipment to determine the nature of a problem. Increasingly, Industrial Plant Technicians have the electrical, electronics, and computer programming skills to repair sophisticated equipment on their own.

*Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Industrial Plant Technician program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf). (Occupational Outlook Handbook)*

**NOTE:** Check with an advisor for program and course location by campus.

### ASSOC IN APPLIED SCIENCE DEGREE (INT) Semester Hours

ORI 107, Student Survival Skills	1
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#### Field of Concentration Courses

MTT 100, Machining Technology I or	
MTT 147 & 148, Intro to Machine Shop I & Lab	6
MTT 103, Machining Technology II or	
MTT 149 & 150, Intro to Machine Shop II & Lab	6
MTT 121, Basic Blueprint Reading for Machinists	3
WKO 110, NCCER Core	3
MTT 127, Introduction to Metrology	3
INT 117, Principles of Industrial Mechanics	3
INT 234, Principles of Industrial Maintenance Welding & Metal Cutting Techniques	3
INT 118, Fundamentals of Industrial Hydraulics & Pneumatics	3
MTT 292, COOP Education in Machine Tool	3
ELM 214, Pump Maintenance	3
WDT 108, SMAW Fillet/OFC	3
WDT 122, SMAW Fillet/OFC Lab	3
WDT 119, Gas Metal ARC/Flux Cored ARC Welding	3
MTT 181, Special Topics in Machine Tool Technology	3
Total Field of Concentration Credits	48

#### General Studies Courses

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or	
SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	21
<b>Total Credits</b>	<b>70</b>

### SHORT-TERM CERTIFICATE #1 (INT) Semester Hours

ORI 107, Student Survival Skills	1
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#### Core Courses

MTT 100, Machining Technology I or MTT 147 & MTT 148	6
MTT 103, Machining Technology II or MTT 149 & MTT 150	6
MTT 121, Basic BP Reading for Machinists	3
WKO 110, NCCER Core	3
<b>Total Credits</b>	<b>19</b>

### SHORT-TERM CERTIFICATE #2 (INT) Semester Hours

#### Core Courses

MTT 127, Intro to Metrology	3
INT 117, Principles of Industrial Mechanics	3
INT 234, Principles of Industrial Maintenance Welding & Metal Cutting Techniques	3
INT 118, Fundamentals of Industrial Hydrolics & Pneumatics	3
MTT 292, Cooporative Education in Machine Tool	3
<b>Total Credits</b>	<b>15</b>

### LONG-TERM CERTIFICATE (INT) Semester Hours

ORI 107, Student Survival Skills	1
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#### Core Courses

MTT 100, Machining Technology I or MTT 147 & MTT 148	6
MTT 103, Machining Technology II or MTT 149 & MTT 150	6
MTT 121, Basic BP Reading for Machinists	3
WKO 110, NCCER Core	3
MTT 127, Intro to Metrology	3
INT 117, Principles of Industrial Mechanics	3
INT 234, Principles of Industrial Maintenance Welding & Metal Cutting Techniques	3
INT 118, Fundamentals of Industrial Hydrolics & Pneumatics	3
MTH 116, Mathematical Applications	3
MTT 292, Cooporative Education in Machine Tool	3
SPH 106, Fundamentals of Oral Communication	3
ENG 101, English Composition I	3
ELM 214, Pump Maintenance	3
WDT 108, SMAW Fillet/OFC	3
WDT 122, SMAW Fillet/OFC Lab	3
CIS 146, Microcomputer Applications	3
<b>Total Credits</b>	<b>55</b>

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### MACHINE TOOL TECHNOLOGY (MTT)

Machinists use machine tools, such as lathes, milling machines, and grinders, to produce precision metal parts. Although they may produce large quantities of one part, precision machinists often produce small batches or one-of-a-kind items. They use their knowledge of the working properties of metals and their skill with machine tools to plan and carry out the operations needed to make machined products that meet precise specifications. Machinists first review electronic or written blueprints or specifications for a job before they machine a part. Next, they calculate where to cut or bore into the workpiece—the piece of steel, aluminum, titanium, plastic, silicon, or any other material that is being shaped.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

### ASSOC IN APPLIED SCIENCE DEGREE (MTT) Semester Hours

ORI 107, Student Survival Skills	1
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#### Field of Concentration Courses

MTT 100, Machining Technology I or	
MTT 147 & 148, Intro to Machine Shop I & Lab	6
MTT 103, Machining Technology II or	

MTT 149 & 150, Intro to Machine Shop II & Lab	6
MTT 121, Basic Blueprint Reading for Machinists	3
MTT 127, Introduction to Metrology	3
MTT 270, Machining Skills Applications	3
Specialization Electives (Advisor Approved)	27
Total Field of Concentration Credits	<b>48</b>

**General Studies Courses**

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	<b>21</b>
<b>Total Credits</b>	<b>70</b>

**LONG-TERM CERTIFICATE (MTT)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Core Courses**

MTT 100, Machining Technology I or MTT 147 & 148, Intro to Machine Shop I & Lab	6
MTT 103, Machining Technology II or MTT 149 & 150, Intro to Machine Shop II & Lab	6
MTT 121, Basic Blueprint Reading for Machinists	3
MTT 127, Metrology	3
MTT 270, Machining Skills Applications	3
Specialization Electives (Advisor Approved)	24
Total Field of Concentration Credits	<b>45</b>

**General Studies Courses**

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
CIS 146, Microcomputer Applications	3
MTH 100, Intermediate College Algebra or MTH 112, Precalculus Algebra, or MTH 116, Mathematical Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>58</b>

**SHORT-TERM CERTIFICATE**

<b>BASIC MACHINING TECHNOLOGY (MTT)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

**Field of Concentration Courses**

MTT 100, Machining Technology I or MTT 147 & 148, Intro to Machine Shop I & Lab	6
MTT 103, Machining Technology II or MTT 149 & 150, Intro to Machine Shop II & Lab	6
MTT 121, Basic Blueprint Reading for Machinists	3
MTT 127, Metrology	3
Specialization Electives (Advisor Approved)	6
<b>Total Credits</b>	<b>25</b>

**SHORT-TERM CERTIFICATE**

<b>COMPUTER NUMERICAL CONTROL (CNC)</b>	<b>Semester Hours</b>
ORI 107, Student Survival Skills	1

**Field of Concentration Courses**

MTT 109, Orientation To Computer Assisted Manufacturing	3
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MTT 139, Basic Computer Numerical Control	3
MTT 270, Machining Skills Applications	3
CNC Specialization Electives (Advisor Approved)	15
<b>Total Credits</b>	<b>25</b>

**INDUSTRIAL ELECTRICAL TECHNOLOGY (IST)**

Manufacturing Engineering Technicians maintain, adjust, calibrate, and repair a wide variety of electronic, electromechanical, and hydraulic equipment used in manufacturing environments. Technicians use a wide variety of tools to conduct their work, including multi-meters, specialized software, and computers designed to communicate with specific pieces of hardware. If a machine is not functioning to its potential, the technician may have to adjust the mechanical or hydraulic components, or adjust the software to bring the equipment back into calibration.

*Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Manufacturing Engineering program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at [www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf). (Occupational Outlook Handbook)*

**NOTE:** Check with an advisor for program and course location by campus.

**SHORT-TERM CERTIFICATE #1 (IST)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Core Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 107, Electrical Blueprint Reading I	3
ETC 104, Digital Fundamentals	3
WKO 110, NCCER Core	3
<b>Total Credits</b>	<b>16</b>

**SHORT-TERM CERTIFICATE #2 (IST)**

<b>Core Courses</b>	<b>Semester Hours</b>
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ETC 108, Motor Controls I	3
INT 184, Intro to Programmable Logic Controllers	3
AUT 117, AC/DC Machinery	3
ELT 118, Commercial/Industrial Wiring	3
ELT 221, Electronics for Electricians	3
ELT 192, Co-Op/Internship	1
<b>Total Credits</b>	<b>16</b>

**LONG-TERM CERTIFICATE (IST)**

ORI 107, Student Survival Skills	<b>Semester Hours</b> 1
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**Core Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 107, Electrical Blueprint Reading	3
ETC 104, Digital Fundamentals	3
MTH 116, Mathematical Applications (or higher level)	3
WKO 110, NCCER Core	3
ETC 108, Motor Controls I	3
INT 184, Intro to Programmable Logic Controllers	3
CIS 146, Microcomputer Applications	3
AUT 117, AC/DC Machinery	3
ELT 118, Commercial/Industrial Wiring	3
ELT 221, Electronics for Electricians	3
ELT 192, Co-Op/Internship	1
SPH 106, Fundamentals of Oral Communication	3
ENG 101, English Composition I	3

ELM 214, Pumps & Piping Systems	3
ILT 108/IST 210, Intro to Instrumentation and Process Control	3
ILT 214, Control and Troubleshooting Flow Level, Temperature, and Level Processes	3
<b>Total Credits</b>	<b>15</b>
	<b>53</b>

MNT 135, First Responder	3
MNT 140, Electrical Certification	6
MNT 175, Basic Hydraulics	6
WDT 108, SMAW Fillet/OFC	3
WDT 122, SMAW Fillet/OFC Lab	3
<b>Total Credits</b>	<b>26</b>

**ASSOC IN APPLIED SCIENCE DEGREE (IST) Semester Hours**

ORI 107, Student Survival Skills	1
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**Field of Concentration Courses**

ETC 101, DC Fundamentals	3
ETC 102, AC Fundamentals	3
ETC 107, Electrical Blueprint Reading I	3
ETC 104, Digital Fundamentals	3
WKO 110, NCCER Core	3
ETC 108, Motor Controls I	3
INT 184, Intro to Programmable Logic Controllers	3
ELT 118, Commercial/Industrial Wiring	3
AUT 117, AC/DC Machinery	3
ELT 221, Electronics for Electricians	3
ELT 192, Co-Op/Internship	1
ILT 108/IST 210, Intro to Instrumentation and Process Control	3
ELM 214, Pumps & Piping Systems	3
ILT 214, Control and Troubleshooting Flow Level, Temperature, and Level Processes	3
ELT 212, Motor Control II	3
ILT 196, Programmable Logic Controls II	3
ELT 241, National Electronic Code	3
ILT 110, Advanced Industrial Process Control Technology	3
<b>Total Credits</b>	<b>52</b>

**General Studies Courses**

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication or SPH 107, Fundamentals of Public Speaking	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Computer Science/Natural Science/Math Elective	3
History or Social/Behavioral Science Elective	3
Humanities/Fine Arts Elective	3
Total General Studies Credits	21
<b>Total Credits</b>	<b>74</b>

**MINING TECHNOLOGY (MNT)**

Products of the mining industry generate the majority of energy used in this country, from electricity in homes to fuel in vehicles. Mined resources also serve as inputs for consumer goods and the processes and services provided by nearly all other industries, particularly in agriculture, manufacturing, transportation, utilities, communication, and construction. New technology and sophisticated mining techniques significantly affect the mining industry. Most mining machines and control rooms are now automatic or computer-controlled. Many mines also operate with other sophisticated technology such as lasers and robotics, which further increases the efficiency of resource extraction.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

**SHORT-TERM CERTIFICATE (MNT) Semester Hours**

**Field of Study Courses**

MNT 100, Underground New Miner	3
MNT 120, Surface New Miner	2

**TRUCK DRIVER TRAINING (TRK)**

The truck driver training program provides basic entry-level driving skills relating to the safe operation techniques of commercial motor vehicles and other related regulations. Upon successful completion of the program, the student may be able to obtain a Commercial Driver's License (CDL) necessary to operate a tractor-trailer unit. Students should also be conversant with the rules and regulations pertaining to the trucking industry once the program is completed.

(Occupational Outlook Handbook)

**NOTE:** Check with an advisor for program and course location by campus.

**SHORT-TERM CERTIFICATE (TRK)**

**Semester Hours**

**Field of Study Courses**

TRK 111, Basic Vehicle Operation	4
TRK 112, Safe Operating Practices	3
TRK 113, Nonvehicle Activities	2
<b>Total Credits</b>	<b>9</b>



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**VEHICLE TECHNOLOGY AND REPAIR (VTR)**

The VTR program will prepare technicians for employment in new vehicle dealerships, independent repair establishments, auto body repair shops, fleet service centers, and rental organizations. Students will be educated to work on current model vehicles in this comprehensive, National Automotive Technicians Education Foundation (NATEF) certified, Automotive Service Excellence (ASE) based training program. Through classroom and lab activities, students will gain the knowledge and experience necessary to obtain an Associate in Applied Science degree and to pursue employment in vehicle repair industries.

**NOTE:** Check with an advisor for program and course location by campus.

**ASSOC IN APPLIED SCIENCE DEGREE**

ORI 107, Student Survival Skills 1

**Field of Study Courses**

VTR 112, Electrical Fundamentals 3  
VTR 121, Braking Systems 3  
VTR 122, Steering and Suspension 3  
VTR 133, Heating and Air Conditioning 3  
Total Field of Study Credits 13

**Select one of the following three options:**

**AUTOMOTIVE SERVICE EXCELLENCE OPTION (VT1)**

ASE 101, Fundamentals of Automotive Technology 3  
ASE 124, Automotive Engines 3  
ASE 130, Drive Train and Axles 3  
ASE 162, Electrical and Electronic Systems 3  
ASE 212, Advanced Electrical and Electronic Systems 3  
ASE 220, Advanced Automotive Engines 3  
ASE 224, Manual Transmission and Transaxle 3  
ASE 230, Automatic Transmission and Transaxle 3  
ASE 239, Engine Performance 3  
ASE 244, Engine Performance and Diagnostic 3  
ASE 246, Automotive Emissions 3  
ASE 281, Special Topics 3  
Total Concentration Credits 36

**AUTO BODY REPAIR OPTION (VT2)**

ABR 111, Non-Structural Repair 3  
ABR 114, Non-Structural Panel Replacement 3  
ABR 122, Surface Preparation 3  
ABR 123, Paint Application and Equipment 3  
ABR 151, Safety and Environmental Practices 3  
ABR 154, Automotive Glass and Trim 3  
ABR 156, Automotive Cutting & Welding 3  
ABR 157, Automotive Plastic Repairs 3  
ABR 213, Automotive Structural Analysis 3  
ABR 214, Automotive Structural Repair 3  
ABR 265, Paint Defects & Final Detail 3  
ABR 267, Shop Management 3  
Total Field of Study Credits 36

**DIESEL TECHNICIAN OPTION (VT3)**

DEM 104, Basic Engines 3

DEM 105, Preventive Maintenance 3  
DEM 111, Equipment Safety & Mechanical Fundamentals 3  
DEM 117, Diesel and Gas Tune Up 3  
DEM 123, Pneumatics and Hydraulics 3  
DEM 124, Electronic Engine Systems 3  
DEM 125, Heavy Vehicle Drive Trains 3  
DEM 126, Advanced Engine Analysis 3  
DEM 127, Fuel Systems 3  
DEM 134, Computer Controlled Engine and Power Train Systems 3  
DEM 180, Special Projects in Commercial Vehicles 3  
DEM 191, Special Projects in Diesel Mechanics 3  
Total Concentration Credits 36

**General Studies Courses**

ENG 101, English Composition I 3  
SPH 106, Fundamentals of Oral Communication 3  
MTH 116, Mathematical Applications (or higher level) 3  
CIS 146, Microcomputer Applications 3  
Computer Science/Natural Science/Math Elective 3  
History or Social/Behavioral Science Elective 3  
Humanities/Fine Arts Elective 3  
Total General Studies Credits 21  
Total Credits 70

**LONG-TERM CERTIFICATE**

ORI 107, Student Survival Skills 1

**Field of Study Courses**

VTR 112, Electrical Fundamentals 3  
VTR 121, Braking Systems 3  
VTR 122, Steering and Suspension 3  
VTR 133, Heating and Air Conditioning 3  
Total Field of Study Credits 13

**Select one of the following three options:**

**AUTOMOTIVE SERVICE EXCELLENCE OPTION (VT1)**

*Choose seven courses (21 credits required)*

ASE 101, Fundamentals of Automotive Technology 3  
ASE 124, Automotive Engines 3  
ASE 130, Drive Train and Axles 3  
ASE 162, Electrical and Electronic Systems 3  
ASE 212, Advanced Electrical and Electronic Systems 3  
ASE 220, Advanced Automotive Engines 3  
ASE 224, Manual Transmission and Transaxle 3  
ASE 230, Automatic Transmission and Transaxle 3  
ASE 239, Engine Performance 3  
ASE 244, Engine Performance and Diagnostic 3  
ASE 246, Automotive Emissions 3  
ASE 281, Special Topics 3

**AUTO BODY REPAIR OPTION (VT2)**

ABR 111, Non-Structural Repair 3  
ABR 114, Non-Structural Panel Replacement 3  
ABR 122, Surface Preparation 3  
ABR 123, Paint Application and Equipment 3  
ABR 151, Safety and Environmental Practices 3  
ABR 154, Automotive Glass and Trim 3

ABR 157, Automotive Plastic Repairs	3
Total Concentration Credits	<b>21</b>

**DIESEL TECHNICIAN OPTION (VT3)**

DEM 104, Basic Engines	3
DEM 105, Preventive Maintenance	3
DEM 111, Equipment Safety & Mechanical Fundamentals	3
DEM 124, Electronic Engine Systems	3
DEM 125, Heavy Vehicle Drive Trains	3
DEM 126, Advanced Engine Analysis	3
DEM 127, Fuel Systems	3
Total Concentration Credits	<b>21</b>

**General Studies Courses**

ENG 101, English Composition I	3
SPH 106, Fundamentals of Oral Communication	3
MTH 116, Mathematical Applications (or higher level)	3
CIS 146, Microcomputer Applications	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>46</b>

**SHORT-TERM CERTIFICATE (VTR)**

	<u>Semester Hours</u>
ORI 107, Student Survival Skills	1
VTR 112, Electrical Fundamentals	3
VTR 121, Braking Systems	3
VTR 122, Steering and Suspension	3
VTR 133, Heating and Air Conditioning	3
<b>Total Credits</b>	<b>13</b>

**WELDING TECHNOLOGY (WDT)**

Welding is a fabrication process that joins materials. The process occurs by melting work pieces and adding a filler to form a pool of molten material that cools to become a strong joint. Bevill State's welding curriculum provides students with the opportunity to acquire the skills, knowledge, and experience necessary for a career in this rapidly growing field. Emphasis on the technical aspects of welding are included in the course and specialized classes include blueprint reading, fabrication, welding inspection and testing, and cutting. Students may become AWS certified welders upon program completion.

(Occupational Outlook Handbook)

Effective July 1, 2011 colleges are required to disclose certain information for any Title IV eligible program that prepares students for gainful employment (as defined by the US Department of Education) in a recognized occupation. The Welding Technology program has been identified as a Gainful Employment program. Disclosure information about the programs can be found at

[www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf](http://www.bscc.edu/documents/BevillGainfulEmploymentDisclosure.pdf).

**NOTE:** Check with an advisor for program and course location by campus.

**LONG-TERM CERTIFICATE (WDT)**

	<u>Semester Hours</u>
ORI 107, Student Survival Skills	1

**Field of Study Courses**

WDT 108, SMAW Fillet/OFC	3
WDT 109, SMAW Fillet/PAC/CAC	3
WDT 119, Gas Metal Arc/Flux Cored Arc Welding Theory	3
WDT 120, Shielded Metal Arc Welding Groove Theory	3
WDT 122, SMAW Fillet/OFC Lab	3
WDT 123, SMAW Fillet/PAC/CAC Lab	3
WDT 124, Gas Metal Arc/Flux Cored Arc Welding Lab	3
WDT 125, Shielded Metal Arc Welding Groove Lab	3
WDT 180 Special Topics	3
WDT 218, Certification Theory	3

WDT 223 Blueprint Reading for Fabrication	3
WDT 229 Boiler Tube	3
WDT 257, SMAW Carbon Pipe Lab	3
WDT 258, Certification Lab	3
Total Field of Study Credits	<b>42</b>

**General Studies Courses**

COM 100, Vocational Technical English I	3
MAH 101, Introductory Mathematics I	3
DPT 103, Introductory Computer Skills II	3
SPC 103, Oral Communication Skills	3
Total General Studies Credits	<b>12</b>
<b>Total Credits</b>	<b>55</b>

**SHORT-TERM CERTIFICATE (WDT)**

	<u>Semester Hours</u>
ORI 107, Student Survival Skills	1

**Field of Study Courses**

WDT 108, SMAW Fillet/OFC	3
WDT 119, Gas Metal Arc/Flux Cored Arc Welding Theory	3
WDT 120, Shielded Metal Arc Welding Groove Theory	3
WDT 122, SMAW Fillet/OFC Lab	3
WDT 124, Gas Metal Arc/Flux Cored Arc Welding Lab	3
WDT 125, Shielded Metal Arc Welding Groove Lab	3
WDT 218, Certification Theory	3
WDT 258, Certification Lab	3
Total Field of Study Credits	<b>24</b>
<b>Total Credits</b>	<b>25</b>

**ADDITIONAL TRAINING**

Bevill State offers additional programs that prepare students with the skills to enter the workforce. These programs include a certificate of completion and additional skills training.

**BANK OPERATIONS CERTIFICATE\***

This curriculum provides a general overview of banking for personnel new to the banking field and prepares mid-level professionals, supervisors, and clerks to become supervisors or managers in the bank operations area.

*\*Upon completion of the appropriate banking courses, a certificate is awarded from the Center for Financial Training-Alabama.*

**GENERAL BANKING CERTIFICATE\***

This curriculum introduces entry-level bank personnel to the role of banking in the U.S. economy and to specific banking functions. It develops knowledge and practical skills related to basic banking services and is intended to provide a focused knowledge of the banking industry as a whole.

*\*Upon completion of the appropriate banking courses, a certificate is awarded from the Center for Financial Training-Alabama.*

**COMPUTER AND OFFICE CAREERS CERTIFICATE**

This multi-task program prepares students for entry level positions in business, retrains displaced workers, or provides additional training for employees. The program contains five, six-week modules. Participants may choose to enter the program at the beginning of any six-week module and may choose to take one or all of the four courses taught in the module. A certificate is awarded for successful completion of each course.