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# AIR CONDITIONING AND REFRIGERATION TECHNOLOGY

The Air Conditioning and Refrigeration program offers students the training and skills needed to install, service, and repair refrigeration and air conditioning systems. The program covers the theory of refrigeration, heating, and air conditioning, equipment selection, sizing and installation. Theory and practical work are offered in refrigeration, air conditioning, heating, heat pumps, and special systems.

## ASSOCIATE IN APPLIED SCIENCE

	<b>Semester Hours</b>
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
<i>Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, and Sociology.</i>	
<b>Area V - Technical Concentration and Electives:</b>	<b>49-52</b>
ORI 101 Orientation to College. . . . .	1
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 Electric Circuits . . . . .	3
ACR 123 HVACR Electrical Components. . . . .	3
ACR 127 HVACR Electric Motors and Components. . . . .	3
ACR 132 Residential Air Conditioning . . . . .	3
ACR 138 Customer Relations in HVAC . . . . .	3
ACR 147 Refrigerant Transition and Recovery Theory. . . . .	3
ACR 148 Heat Pump Systems I. . . . .	3
ACR 149 Heat Pump Systems II . . . . .	3
ACR 192 Apprenticeship/Internship . . . . .	3
ACR 209 Commercial Air Conditioning Systems . . . . .	3
ACR 210 Troubleshooting HVACR Systems . . . . .	3
Electives. . . . .	0-3
<b>Recommended Electives</b>	
HED 199 Ecological Approach to Health and Fitness or	
HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>70-74</b>

**CERTIFICATE**

	Semester Hours
<b>General Education: (Areas I-IV)</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration:</b>	<b>46</b>
ORI 101 Orientation to College . . . . .	1
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 Electric Circuits . . . . .	3
ACR 123 HVACR Electrical Components . . . . .	3
ACR 127 HVACR Electric Motors . . . . .	3
ACR 132 Residential Air Conditioning . . . . .	3
ACR 138 Customer Relations in HVAC . . . . .	3
ACR 147 Refrigerant Transition and Recovery . . . . .	3
ACR 148 Heat Pump Systems I . . . . .	3
ACR 149 Heat Pump Systems II . . . . .	3
ACR 192 Apprenticeship/Internship . . . . .	3
ACR 209 Commercial Air Conditioning Systems . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>58</b>

**SHORT-TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
ACR 111 Principles of Refrigeration . . . . .	3
ACR 112 HVACR Service Procedures . . . . .	3
ACR 113 Refrigeration Piping Practices . . . . .	3
ACR 119 Fundamentals of Gas Heating Systems . . . . .	3
ACR 121 Principles of Electricity for HVACR . . . . .	3
ACR 122 HVACR Electric Circuits . . . . .	3
ACR 123 HVACR Electrical Components . . . . .	3
ACR 132 Residential Air Conditioning . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

**AUTO BODY REPAIR**

This curriculum is designed to instruct students in the repair of damaged bodies and body parts of motor vehicles such as automobiles and light trucks. On completion of this course of study, students can examine damaged vehicles to estimate cost of repairs, remove upholstery, accessories, electrical and hydraulic window-and-seat operating equipment, and trim to gain access to vehicle body and fenders. Students will acquire skills in straightening bent frames using hydraulic jacks and pulling devices. Students will also know how to straighten, file, grind, and sand repaired surfaces using power tools and hand tools, and to refinish repaired surfaces after performing body repairs.

**SHORT-TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration and Electives:</b>	<b>24</b>
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 Auto Glass and Trim . . . . .	3
ABR 157 Automotive Plastic Repairs . . . . .	3
Electives . . . . .	3
<b>Recommended Electives</b>	
ABR 213 Automotive Structural Analysis: . . . . .	3
ABR 214 Automotive Structural Repair . . . . .	3
ABR 223 Automotive Mechanical Components: . . . . .	3
ABR 281 Special Topics in Auto Body . . . . .	3
ABR 293 Auto Body Repair Co-op . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

**AUTOMOTIVE MECHANICS**

This program provides instruction in the skills and technical knowledge needed to meet the entry level requirements of employment in the automotive field. Students develop an understanding of logical, step-by-step, diagnostic procedures, and repair according to manufacturers' recommendations. The automotive shop offers hands-on experience in disassembling, inspecting, adjusting, and testing various types of engines. Students also learn about advanced technology found in emission controls, sensing devices, electronic fuel injection, and computer-controlled timing.

**CERTIFICATE**

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>48</b>
ORI 101 Orientation to College . . . . .	1
AUM 101 Fundamentals of Automotive Technology . . . . .	3
AUM 110 Electrical and Electronic Systems I . . . . .	3
AUM 121 Braking Systems . . . . .	3
AUM 122 Steering and Suspension . . . . .	3
AUM 124 Engine Repair I . . . . .	3
AUM 130 Drivetrain and Axles . . . . .	3
AUM 210 Electrical and Electronic Systems II . . . . .	3
AUM 230 Auto Transmission and Transaxle . . . . .	3
AUM 239 Engine Performance I . . . . .	3
AUM 244 Engine Performance II . . . . .	3
Electives . . . . .	17
<b>Recommended Electives</b>	
AUM 112 Starting Systems, Charging Systems and Accessories . . . . .	3
AUM 133 Motor Vehicle Air Conditioning . . . . .	3

AUM 181 Special Topics.....	1
AUM 182 Special Topics.....	2
AUM 191 Co-op.....	2
AUM 220 Engine Repair II.....	3
AUM 224 Manual Transmission.....	3
AUM 246 Automotive Emissions I.....	3
AUM 281 Special Topics.....	3
AUM 291 Co-op.....	3
<b>Total Hours Required for Certificate</b>	<b>60</b>

## AUTOMOTIVE ELECTRICAL AND PERFORMANCE

This program is designed to accommodate the student who does not desire to complete the entire program, but wants to specialize in one or more areas of automotive technology only. This program places emphasis on the training needed to have a working knowledge to troubleshoot, diagnose, and repair parts, components and systems related to automotive electrical, electronics and engine performance.

### SHORT-TERM CERTIFICATE

	<b>Semester Hours</b>
<b>Technical Concentration and Electives:</b>	<b>24</b>
AUM 101 Fundamentals of Automotive Technology.....	3
AUM 110 Electrical and Electronic Systems I.....	3
AUM 112 Starting, Charging, Systems, and Accessories.....	3
AUM 133 Motor Vehicle Air Conditioning.....	3
AUM 210 Electrical and Electronic Systems II.....	3
AUM 239 Engine Performance I.....	3
AUM 244 Engine Performance II.....	3
AUM 246 Automotive Emissions I.....	3
<b>Total Hours Required for Certificate</b>	<b>24</b>

## AUTOMOTIVE CHASSIS AND POWERTRAIN

This course is designed to accommodate the student who does not desire to complete the entire program, but wants to specialize in one or more areas of automotive technology. This course places emphasis on the training needed to have a working knowledge to troubleshoot, diagnose and repair components and/or systems related to the automotive chassis and powertrain.

### SHORT-TERM CERTIFICATE

	<b>Semester Hours</b>
<b>Technical Concentration:</b>	<b>24</b>
AUM 101 Fundamentals of Automotive Technology.....	3
AUM 121 Braking Systems.....	3
AUM 122 Steering, and Suspension.....	3
AUM 124 Engine Repair I.....	3
AUM 130 Drivetrain and Axles.....	3
AUM 220 Engine Repair II.....	3
AUM 224 Manual Transmission.....	3
AUM 230 Auto Transmission and Transaxle.....	3
<b>Total Hours Required for Certificate</b>	<b>24</b>

## CARPENTRY

This program is divided between classroom theory and shop practice. Course content consists of safety, use, and care of hand tools and power equipment, and the application of common building materials. Instruction includes foundations, exterior finishing, roof framing, blue-print reading, estimating materials, related mathematics and communications.

### SHORT-TERM CERTIFICATE

	<b>Semester Hours</b>
<b>Technical Concentration and Electives:</b>	<b>27</b>
CAR 111 Construction Basics.....	3
CAR 112 Floors, Walls, Site Prep.....	3
CAR 113 Floors, Walls, Site Prep Lab.....	3
CAR 114 Construction Basics Lab.....	3
CAR 121 Introduction to Blueprint Reading.....	3
CAR 131 Roof and Ceiling Systems.....	3
CAR 132 Interior and Exterior Finishing.....	3
CAR 133 Roof and Ceiling Systems Lab.....	3
Electives.....	3
<b>Recommended Electives</b>	
CAR 193 Internship in CAR.....	3
CAR 203 Special Projects in CAR.....	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>27</b>

## CHILD DEVELOPMENT

This program is designed to prepare students for employment in preschool programs. Graduates may be employed as aides, teachers or directors of private preschool programs.

### CERTIFICATE

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</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 more advanced mathematics.....	3
CIS 146 Microcomputer Applications.....	3
<b>Technical Concentration and Electives</b>	<b>28</b>
ORI 101 Orientation to College.....	1
CHD 100 Introduction to Early Care and Education of Children.....	3
CHD 201 Child Growth and Development Principles.....	3
CHD 202 Children's Creative Experiences.....	3
CHD 203 Children's Literature and Language Development.....	3
CHD 204 Methods and Materials for Teaching Children.....	3
CHD 205 Program Planning for Educating Young Children.....	3
CHD 206 Children's Health and Safety.....	3
CHD 215 Supervised Practical Experience in Childhood Development.....	3
Electives.....	3
<b>Recommended Electives</b>	
CHD 211 Child Development Seminar.....	2
CHD 208 Administration of Child Development Programs.....	3
CHD 209 Infant and Toddler Education Programs.....	3
CHD 210 Educating Exceptional Young Children.....	3
<b>Total Hours Required for Certificate</b>	<b>40</b>

## CHILD DEVELOPMENT ASSOCIATE (CDA) CREDENTIAL

Students interested in obtaining the 120 hours of formal training necessary for the Child Development Associate (CDA) credential may take the following courses

	Semester Hours
CHD 100 Introduction to Early Care and Education of Children . . . . .	3
CHD 204 Methods and Materials for Teaching Children . . . . .	3
CHD 211 Child Development Seminar. . . . .	2

The Child Development Associate Credential is not awarded by Shelton State Community College. It is awarded by the Council for Early Childhood Recognition in Washington, D.C. Information concerning the Council and the CDA credential may be obtained from the Associate Dean of Academic Services.

## COMMERCIAL ART

The Commercial Art program is designed to enhance and maximize artistic skills for persons who desire to work in this career.

### SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
CAT 118 Design Drawing . . . . .	3
CAT 132 Basic Advertising Design . . . . .	3
CAT 142 Intermediate Advertising Design. . . . .	3
CAT 152 Digital Photography . . . . .	3
CAT 175 Illustration I . . . . .	3
CAT 183 Special Topics in Commercial Art . . . . .	3
CAT 184 Special Topics in Commercial Art . . . . .	3
CAT 185 Imaging I. . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## COMMERCIAL FOOD SERVICE

Commercial Food Service classes incorporate fundamental quantity food preparation, basic nutrition and menu planning, and management training. It is specially designed to give the student both academic study as well as ample laboratory experience. Training will include selection and grading identification of meats, seafood, fruits, vegetables and staple items as well as various methods of preparation and service. Emphasis is given on convenience foods as they are currently marketed. Workplace communication and human relations are included as part of the training. A brief history of food service with projections and trends are covered. This program is designed to prepare the student for employment.

## SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
CFS 101 Orientation to Food Service Industry . . . . .	1
CFS 102 Catering . . . . .	2
CFS 110 Basic Food Preparation . . . . .	3
CFS 111 Foundations in Nutrition . . . . .	3
CFS 112 Sanitation Safety and Food Service . . . . .	2
CFS 114 Meal Management. . . . .	3
CFS 141 Food Production for Special Operations . . . . .	2
CFS 201 Meat Preparation and Processing . . . . .	2
CFS 260 Internship for Commercial Food Service . . . . .	3
CFS 299 Special Topics in Commercial Food Preparation. . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## COMPUTERIZED NUMERICAL CONTROL

Shelton State Community College has long been recognized as the state's center for training in numerical control. Using numerical control, automatic operation is achieved by means of numerical instructions expressed in computerized code and prepared in advance. Shop conditions simulate those found in industry, and students learn how to read blue-prints, determine sequence of operations, make their own set-ups, choose the correct machine for the job, and produce a quality product efficiently. Prior training and experience as a machinist is required for admission to the CNC program. Students interested in entering the CNC program should contact the CNC instructor for admission requirements.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking. . . . .	3
Fine Arts or Humanities Electives . . . . .	3
Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . . <i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	3
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology	
<b>Area V-Technical Concentration and Electives:</b>	<b>46</b>
ORI 101 Orientation to College. . . . .	1
CNC 101 Introduction to CNC . . . . .	6
CNC 102 CNC Turning Operations. . . . .	6
CNC 103 Manual Programming . . . . .	6
CNC 104 CNC Milling Operations . . . . .	6
CNC 215 Quality Control and Assurance . . . . .	3
CNC 216 Quality Control II. . . . .	3

CNC 217 Tooling and Machining Data . . . . .	3
CNC 222 Computer Numerical Control Graphics Programming: Turning . . . . .	3
CNC 223 Computer Numerical Control Graphics Programming: Milling . . . . .	3
CNC 281 Special Topics in Computerized Numerical Control . . . . .	3
Electives . . . . .	3
<b>Recommended Electives</b>	
CNC 230 Computer Numerical Control Special Projects . . .	3
EGR 125 Modern Graphics for Engineers . . . . .	3
DDT 104 Basic Computer-Aided Drafting and Design . . . .	3
MTT 181 Special Topics in Machine Tool Technology . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>67-68</b>

**CERTIFICATE**

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>4</b>
ORI 101 Orientation to College . . . . .	1
CNC 101 Introduction to CNC . . . . .	6
CNC 102 CNC Turning Operations . . . . .	6
CNC 103 Manual Programming . . . . .	6
CNC 104 CNC Milling Operations . . . . .	6
CNC 215 Quality Control and Assurance . . . . .	3
CNC 216 Quality Control II . . . . .	3
CNC 217 Tooling and Machining Data . . . . .	3
CNC 222 Computer Numerical Control Graphics: Turning . . . . .	3
CNC 223 Computer Numerical Control Graphics Programming: Milling . . . . .	3
CNC 281 Special Topics in Computer Numerical Control . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>55</b>

**COSMETOLOGY**

The Cosmetology program prepares students for careers in the professional care of hair, skin, and nails. In addition to the required year of training, students must complete all requirements and pass the Alabama Cosmetology Instructor Examination. During the training period, the student will learn the technical skills with state-of-the-art equipment and tools.

**CERTIFICATE**

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>48</b>
ORI 101 Orientation to College . . . . .	1
COS 111 Cosmetology Science and Art . . . . .	3
COS 112 Cosmetology Science and Art Lab . . . . .	3
COS 114 Chemical Methodology Lab . . . . .	3
COS 121 Colorimetry . . . . .	3
COS 122 Colorimetry Applications . . . . .	3
COS 125 Career and Personal Development . . . . .	3
COS 131 Aesthetics . . . . .	3
COS 132 Aesthetics Applications . . . . .	3
COS 133 Salon Management Technology . . . . .	3
COS 141 Applied Chemistry for Cosmetology . . . . .	3
COS 143 Hair Designs . . . . .	3
COS 144 Hair Shaping and Design . . . . .	3
COS 158 Employability Skills . . . . .	3
COS 167 State Board Review . . . . .	3
COS 182 Special Topics . . . . .	3
COS 191 CO-OP . . . . .	2
<b>Total Hours Required for Certificate</b>	<b>60</b>

**COSMETOLOGY  
AESTHETICS**

Aesthetics courses prepare students for a career as an aesthetician performing preventative care of skin and offering treatments to keep skin healthy and attractive. This comprehensive program focuses on all aspects of skin care including the importance of skin analysis, skin structure, disease disorders, facial treatments and massage techniques. Students will learn both manual skills and electrical skills. After completing the required courses, students qualify to take the Alabama Board of Cosmetology Aesthetics Examination.

**CERTIFICATE**

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration:</b>	<b>33</b>
ORI 101 Orientation to College . . . . .	1
COS 125 Career and Personal Development . . . . .	3
COS 131 Aesthetics . . . . .	3
COS 132 Aesthetics Applications . . . . .	3
COS 160 Image Projection . . . . .	3

## CULINARY ARTS

This program provides students with the opportunity to acquire a strong theoretical knowledge base, critical competencies, practical skills, and professional demeanor and behavior necessary to perform successfully and creatively in the culinary arts and food service industry. Topics include food selection and preparation, menu planning, meal management, and restaurant and food service operation.

COS 164 Facial Machine .....	3
COS 165 Related Subjects Aesthetician .....	3
COS 166 Color Psychology-Coordination .....	3
COS 168 Bacteriology and Sanitation .....	3
COS 169 Skin Functions .....	3
COS 181 Special Topics .....	3
COS 190 Internship in Cosmetology .....	2
<b>Total Hours Required for Certificate</b>	<b>45</b>

## COSMETOLOGY INSTRUCTOR TRAINING

To enter this program a student must have a current manager's license and have at least one year's experience working in the field. At the end of two semesters, upon the completion of the courses listed below, the student will qualify to take the Alabama State Board Examination.

### SHORT-TERM CERTIFICATE

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>6</b>
ENG 101 English Composition I .....	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking .....	3
<b>Technical Concentration:</b>	<b>18</b>
CIT 211 Teaching and Curriculum Development .....	3
CIT 212 Teacher 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
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## COSMETOLOGY NAIL TECHNICIAN

Nail Technician courses prepare students for careers as professional nail technicians performing manicures, pedicures and artificial nail services. Students can earn a certificate and complete the Nail Technician program in eight months (two semesters). Classes are offered both fall and spring semesters. After completing the required courses, students qualify to take the Alabama Board of Cosmetology Nail Technician Examination.

### SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>21</b>
COS 151 Nail Care .....	3
COS 152 Nail Care Applications .....	3
COS 153 Nail Art .....	3
COS 154 Nail Art Applications .....	3
COS 156 Career and Personal Development .....	3
COS 162 Special Topics - Nail Technology .....	3
COS 191 CO-OP .....	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>21</b>

## ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I .....	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking .....	3
Fine Arts or Humanities Electives .....	3
Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications .....	3
CIS 146 Microcomputer Applications .....	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective .....	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.	
<b>Area V - Technical Concentration and Electives:</b>	<b>50</b>
ORI 101 Orientation to College .....	1
CUA 100 Orientation to Culinary Arts .....	1
CUA 101 Orientation to the Food Service Industry .....	1
CUA 110 Basic Food Preparation .....	3
CUA 111 Foundations in Nutrition .....	3
CUA 112 Sanitation Safety .....	2
CUA 113 Table Service .....	2
CUA 114 Meal Management .....	3
CUA 115 Advanced Food Preparation .....	3
CUA 122 Fundamentals of Quantity Cooking .....	3
CUA 132 Fundamentals of Restaurant Operations .....	3
CUA 201 Meat Preparation and Processing .....	2
CUA 202 Aromatic and Flavoring Combinations .....	3
CUA 203 Stocks and Sauces .....	3
CUA 204 Foundations of Baking .....	3
CUA 205 Introduction to Garde Manger .....	3
CUA 213 Food Purchasing/Cost Control .....	3
CUA 215 Regional Cuisines of Americas .....	3
CUA 260 Internship for Culinary Apprentice .....	3
Electives .....	2
Recommended Electives	
CUA 102 Catering .....	3
CUA 141 Food Production for Special Operations .....	2
CUA 181/182 Special Topics in Culinary Arts .....	3
CUA 183 Culinary Art Sculpture .....	3
CUA 208 Advanced Baking .....	2
CUA 210 Beverage Management .....	2
CUA 214 International Cuisine .....	3
CUA 220 Introduction to Patisserie .....	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health .....	3

*As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.*

HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>71-72</b>

## DIESEL MECHANICS

The Diesel Mechanics program trains students to remove, repair, install and maintain diesel engines that power heavy trucks, buses, boats, diesel-powered equipment and construction equipment such as bulldozers, cranes, and diesel farm tractors. Principles of diesel engines are taught and reinforced in laboratory experiences using actual diesel equipment. Emphasis is on diesel engines, but all other components of equipment and gasoline engines are covered.

### CERTIFICATE

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>43</b>
ORI 101 Orientation to College. . . . .	1
DEM 104 Basic Engines . . . . .	3
DEM 111 Equipment Safety/Mechanical Fundamentals . . .	3
DEM 119 Bearings and Lubricants . . . . .	3
DEM 122 Heavy Vehicle Brakes . . . . .	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 130 Electrical/Electronic Fundamentals. . . . .	3
DEM 158 Pneumatics and Hydraulics II . . . . .	3
Electives (Selected from any technical program) . . . . .	9
<b>Recommended Electives</b>	
DEM 105 Preventive Maintenance . . . . .	3
DEM 106 Heavy Equipment Operations . . . . .	3
DEM 110 Diesel Powered Auxiliary Equipment . . . . .	3
DEM 114 Fluid Power Components. . . . .	3
DEM 115 Heavy Vehicle Collision Repair . . . . .	3
DEM 116 Track Vehicle Drive Trains . . . . .	3
DEM 117 Diesel and Gas Tune-Up . . . . .	3
DEM 118 Industrial and Agricultural Equipment . . . . .	3
DEM 131 Computer Applications for Diesel Mechanics . . .	2
DEM 134 Computer Controlled Engine and Power Train Systems . . . . .	3
DEM 135 Heavy Vehicle Steering and Suspension. . . . .	3
DEM 137 Heating and A/C Systems. . . . .	3
DEM 154 Vehicle Maintenance and Safe Operating Practices . . . . .	3
DEM 156 CDL License Test Preparation . . . . .	3
DEM 159 Heavy Vehicle Drive Trains II. . . . .	3

DEM 181 Special Topics in Diesel Mechanics: . . . . .	3
DEM 182 Special topics in Diesel Mechanics: . . . . .	3
DEM 191 Special Projects in Diesel Mechanics: . . . . .	3
DEM 192 CO-OP Elective: . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>55</b>

## SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
DEM 104 Basic Engines . . . . .	3
DEM 111 Equipment Safety/Mechanical Fundamentals . . .	3
DEM 119 Bearings and Lubricants . . . . .	3
DEM 122 Heavy Vehicle Brakes . . . . .	3
DEM 123 Pneumatics and Hydraulics . . . . .	3
DEM 125 Heavy Vehicle Drive Trains . . . . .	3
DEM 126 Advanced Engine Analysis . . . . .	3
DEM 127 Fuel Systems . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## DRAFTING TECHNOLOGY

The Drafting program prepares students for careers as draftsmen in engineering related trades or as technicians who link the skilled worker and the engineer or architect. Instruction includes fundamentals of drafting, orthographic projection, multi-view drawing, dimensioning, and pictorial drawing. The program also emphasizes engineering production drafting, machine drafting, structural steel detailing, industrial pipe drafting, civil and map drafting, and architectural drafting. Students will also receive training on the latest computer-aided drafting software by AutoCAD and others.

## ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology	
<b>Area V - Technical Concentration and Electives:</b>	<b>52</b>
ORI 101 Orientation to College. . . . .	1
DDT 104 Introduction to Computer Aided Drafting and Design. . . . .	3
DDT 111 Fundamentals of Drafting and Design Technology . . . . .	3
DDT 122 Advanced Technical Drawing. . . . .	3
DDT 124 Basic Technical Drawing. . . . .	3

DDT 127 Intermediate and Computer Aided Drafting and Design . . . . .	3
DDT 128 Intermediate Technical Drawing . . . . .	3
DDT 131 Machine Drafting Basics . . . . .	3
DDT 132 Architectural Drafting . . . . .	3
DDT 134 Descriptive Geometry . . . . .	3
DDT 150 Theory of Residential Drafting and Design . . . . .	3
DDT 213 Civil Drafting, Plat Maps . . . . .	3
DDT 214 Pipe Drafting . . . . .	3
DDT 225 Structural Steel Drafting . . . . .	3
DDT 231 Advanced CAD . . . . .	3
Electives . . . . .	9
<b>Recommended Electives</b>	
DDT 115 Blueprint Reading for Machinists . . . . .	3
DDT 116 Blueprint Reading for Construction . . . . .	3
DDT 118 Basic Electrical Drafting . . . . .	3
DDT 130 Fundamentals of Drafting for Related Trades . . . . .	3
DDT 133 Basic Surveying . . . . .	3
DDT 181 Special Topics in Drafting and Design Technology . . . . .	3
DDT 182 Special Topics in Drafting and Design Technology . . . . .	3
DDT 191 Drafting Internship . . . . .	1
DDT 192 Drafting Internship . . . . .	2
DDT 193 Drafting Internship . . . . .	3
DDT 211 Intermediate Machine Drafting . . . . .	3
DDT 215 Geometric Dimensioning and Tolerancing . . . . .	3
DDT 221 Advanced Machine Drafting . . . . .	3
DDT 222 Advanced Architectural Drafting . . . . .	3
DDT 226 Technical Illustration . . . . .	3
DDT 233 Three Dimensional Modeling . . . . .	3
DDT 237 Current Topics in CAD . . . . .	3
DDT 238 Special Topics in CAD . . . . .	3
DDT 239 Independent Studies . . . . .	1-4
DDT 249 Advanced CAD Applications . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>73-74</b>

**CERTIFICATE**

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>46</b>
ORI 101 Orientation to College . . . . .	1
DDT 104 Introduction to Computer Aided Drafting and Design . . . . .	3
DDT 111 Fundamentals of Drafting and Design Technology . . . . .	3
DDT 122 Advanced Technical Drawing . . . . .	3
DDT 124 Basic Technical Drawing . . . . .	3
DDT 127 Intermediate Computer Aided Drafting and Design . . . . .	3

Drafting and Design . . . . .	3
DDT 128 Intermediate Technical Drawing . . . . .	3
DDT 131 Machine Drafting Basics . . . . .	3
DDT 132 Architectural Drafting . . . . .	3
DDT 134 Descriptive Geometry . . . . .	3
DDT 150 Theory of Residential Drawing and Design . . . . .	3
DDT 213 Civil Drafting, Plat Maps . . . . .	3
DDT 214 Pipe Drafting . . . . .	3
DDT 225 Structural Steel Drafting . . . . .	3
DDT 231 Advanced CAD . . . . .	3
Elective . . . . .	3
<b>Recommended Electives</b>	
DDT 115 Blueprint Reading for Machinists . . . . .	3
DDT 116 Blueprint Reading for Construction . . . . .	3
DDT 118 Basic Electrical Drafting . . . . .	3
DDT 130 Fundamentals of Drafting for Related Trades . . . . .	3
DDT 133 Basic Surveying . . . . .	3
DDT 181 Special Topics in Drafting and Design Technology . . . . .	3
DDT 182 Special Topics in Drafting and Design Technology . . . . .	3
DDT 191 Drafting Internship . . . . .	1
DDT 192 Drafting Internship . . . . .	2
DDT 193 Drafting Internship . . . . .	3
DDT 211 Intermediate Machine Drafting . . . . .	3
DDT 212 Intermediate Architectural Drafting . . . . .	3
DDT 215 Geometric Dimensioning and Tolerancing: . . . . .	3
DDT 221 Advanced Machine Drafting . . . . .	3
DDT 222 Advanced Architectural Drafting . . . . .	3
DDT 233 Three Dimensional Modeling . . . . .	3
DDT 237 Current Topics in CAD . . . . .	3
DDT 238 Special Topics in CAD . . . . .	3
DDT 239 Independent Studies . . . . .	1-4
DDT 249 Advanced CAD Applications . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>58</b>

**SHORT-TERM CERTIFICATE**

	<b>Semester Hours</b>
<b>Technical Concentration and Electives:</b>	<b>24</b>
DDT 104 Introduction to Computer Aided Drafting and Design . . . . .	3
DDT 111 Fundamentals of Drafting and Design Technology . . . . .	3
DDT 124 Basic Technical Drawing . . . . .	3
DDT 127 Intermediate Computer Aided Drafting and Design . . . . .	3
DDT 128 Intermediate Technical Drawing . . . . .	3
DDT 134 Descriptive Geometry . . . . .	3
DDT Electives . . . . .	6
<b>Recommended Electives</b>	
DDT 118 Basic Electrical Drafting . . . . .	3
DDT 122 Advanced Technical Drawing . . . . .	3
DDT 131 Machine Drafting Basics . . . . .	3
DDT 132 Architectural Drafting . . . . .	3
DDT 133 Basic Surveying . . . . .	3
DDT 134 Descriptive Geometry . . . . .	3
DDT 150 Theory of Residential Drawing and Design . . . . .	3
DDT 181 Special Topics in Drafting and Design Technology . . . . .	3
DDT 212 Intermediate Architectural Drafting . . . . .	3
DDT 213 Civil Drafting, Plat Maps . . . . .	3
DDT 214 Pipe Drafting . . . . .	3
DDT 225 Structural Steel Drafting . . . . .	3
DDT 231 Advanced CAD . . . . .	3
<b>Total Hours Required for Short-Term Certificate.</b>	<b>24</b>

## ELECTRICAL TECHNOLOGY

The Electrical Technology program teaches the theories and principles of the operation of electrical appliances, equipment, and machines; the installation and maintenance of motors, transformers, industrial controls, and programmable logic controllers, and; preparation for journeyman electrician examination. A variety of related laboratory projects allow students to put into practice the knowledge and skills gained. Projects requiring interpretation of the National Electrical Code for correct installation and material use will be assigned to test proficiency in this area of instruction.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.	
<b>Area V - Technical Concentration and Electives:</b>	<b>55-58</b>
ORI 101 Orientation to College . . . . .	1
ELT 106 AC Principles of Electricity II . . . . .	3
ELT 107 DC Principles of Electricity II . . . . .	3
ELT 108 DC Fundamentals . . . . .	3
ELT 109 AC Fundamentals . . . . .	3
ELT 110 Wiring Methods . . . . .	3
ELT 114 Residential Wiring I . . . . .	3
ELT 115 Residential Wiring II . . . . .	3
ELT 117 AC/DC Machines . . . . .	3
ELT 118 Commercial Industrial Wiring . . . . .	3
ELT 122 Advanced AC/DC Machines . . . . .	3
ELT 206 OSHA Safety Standards . . . . .	3
ELT 209 Motor Controls I . . . . .	3
ELT 212 Motor Control II . . . . .	3
ELT 221 Electronics for Electricians . . . . .	3
ELT 231 Programmable Control I . . . . .	3
ELT 232 Programmable Controls II . . . . .	3
ELT 241 National Electric Code . . . . .	3
Electives . . . . .	3-6
<b>Recommended Electives</b>	
ELT 132 Commercial/Industrial Wiring II . . . . .	3
ELT 181 Special Topics in ELT Technology . . . . .	3
ELT 192 Practicum/Intern/CO-OP . . . . .	1
ELT 193 Practicum/Intern/CO-OP . . . . .	2
ELT 194 Practicum/Intern/CO-OP . . . . .	3
ELT 242 Journeyman/Master Prep Exam . . . . .	3
ELT 243 Electrical Cost Estimating . . . . .	3
ELT 244 Conduit Bending and Installation . . . . .	3
ELT 245 Electrical Grounding Systems . . . . .	3

HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>73-77</b>

## CERTIFICATE

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>46</b>
ORI 101 Orientation to College . . . . .	1
ELT 106 AC Principles of Electricity II . . . . .	3
ELT 107 DC Principles of Electricity II . . . . .	3
ELT 108 DC Fundamentals . . . . .	3
ELT 109 AC Fundamentals . . . . .	3
ELT 110 Wiring Methods . . . . .	3
ELT 114 Residential Wiring I . . . . .	3
ELT 115 Residential Wiring II . . . . .	3
ELT 117 AC/DC Machines . . . . .	3
ELT 118 Commercial Industrial Wiring . . . . .	3
ELT 209 Motor Controls I . . . . .	3
ELT 212 Motor Control II . . . . .	3
ELT 221 Electronics for Electricians . . . . .	3
ELT 231 Programmable Control I . . . . .	3
ELT 241 National Electric Code . . . . .	3
Electives . . . . .	3
<b>Recommended Electives</b>	
ELT 122 Advanced AC/DC Machines . . . . .	3
ELT 132 Commercial/Industrial Wiring II . . . . .	3
ELT 181 Special Topics in ELT Technology . . . . .	3
ELT 192 Practicum/Intern/CO-OP . . . . .	1
ELT 193 Practicum/Intern/CO-OP . . . . .	2
ELT 194 Practicum/Intern/CO-OP . . . . .	3
ELT 206 OSHA Safety Standards . . . . .	3
ELT 242 Journeyman/Master Prep Exam . . . . .	3
ELT 243 Electrical Cost Estimating . . . . .	3
ELT 244 Conduit Bending and Installation . . . . .	3
ELT 245 Electrical Grounding Systems . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>58</b>

## SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
ELT 106 AC Principles of Electricity II . . . . .	3
ELT 107 DC Principles of Electricity II . . . . .	3
ELT 108 DC Fundamentals . . . . .	3
ELT 109 AC Fundamentals . . . . .	3
ELT 110 Wiring Methods . . . . .	3
ELT 114 Residential Wiring I . . . . .	3
ELT 115 Residential Wiring II . . . . .	3
ELT 241 National Electric Code . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## FIRE SCIENCE

This program is designed primarily to serve individuals in the fire service, either career or volunteer. The institutional objective is to provide educational experiences so the individual fire fighters can secure the skills and knowledge necessary to significantly enhance their abilities and capabilities as effective administrators and managers in the fire and emergency service.

### SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration and Electives:</b>	<b>24</b>
FSC 101 Introduction to the Fire Service . . . . .	3
FSC 200 Fire Combat Tactics and Strategy . . . . .	3
FSC 210 Building Construction for the Fire Service. . . . .	3
FSC 240 Fire Cause Determination . . . . .	3
FSC 292 Elements of Supervision/Fire Service Supervision . . . . .	3
Electives . . . . .	9
<b>Recommended Electives</b>	
FSC 103 Hazardous Materials I. . . . .	3
FSC 104 Hazardous Materials II . . . . .	3
FSC 105 Chemistry for the Fire Service. . . . .	3
FSC 111 Fire Hydraulics . . . . .	3
FSC 120 Fire Hazards . . . . .	3
FSC 130 Introduction to Fire Suppression . . . . .	3
FSC 205 Fire Instructor I. . . . .	3
FSC 206 Fire Instructor II. . . . .	3
FSC 207 Fire Instructor III. . . . .	3
FSC 211 Building Construction and Related Codes . . . . .	3
FSC 220 Fire Extinguishment Agents . . . . .	3
FSC 230 The ISO (AIA) Standards . . . . .	3
FSC 235 Breathing Apparatus Specialist . . . . .	3
FSC 241 Arson Investigation . . . . .	3
FSC 250 Fire Prevention Inspection. . . . .	3
FSC 260 Special Service Hazards . . . . .	3
FSC 270 Fire Protection Systems. . . . .	3
FSC 280 Fire Apparatus and Equipment . . . . .	3
FSC 285 Industrial Fire Protection . . . . .	3
FSC 293 Fire Service Administration. . . . .	3
FSC 294 Fire Department Management . . . . .	3
FSC 297 Selected Topics in Fire Service Operations . . . . .	3
FSC 299 Legal Aspects of the Fire Service . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>24</b>

### FUNERAL SERVICE EDUCATION

This degree is offered through a linkage with Jefferson State Community College in Birmingham, Alabama. A student may complete the general education component of this program at Shelton State Community College and then transfer to Jefferson State and complete the degree. Acceptance into the program will be through application to Jefferson State. The degree is awarded by Jefferson State Community College. Students who wish to transfer into the Jefferson State Funeral Service Education program should consult with the Shelton State Community College Counseling Center. Students should consult the Jefferson State Community College website, [jffststateonline.com](http://jffststateonline.com) or call 800-239-5900.

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I. . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Speech Communications or SPH 107 Fundamentals of Public Speaking. . . . .	3
Humanities Elective . . . . .	3
<i>Choose from Area II STARS Approved Course List.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>3</b>
MTH 100 Intermediate College Algebra or MTH 110 Finite Mathematics . . . . .	3
<b>Area IV - History, Social, and Behavior Science:</b>	<b>3</b>
PSY 200 General Psychology or SOC 200 Introduction to Sociology . . . . .	3
<b>Total Hours</b>	<b>15</b>

## HEAVY EQUIPMENT OPERATOR

This program provides students with the basic skills in safe operation and maintenance of several pieces of equipment including bulldozers, graders, front-end loaders, and backhoes/excavators. Coordination with the Diesel Mechanics program will provide an expanded educational opportunity for students in both programs in maintenance, repair, and troubleshooting.

### SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration:</b>	<b>27</b>
HEO 111 Introduction to Heavy Equipment . . . . .	6
HEO 114 Bulldozer Operation . . . . .	6
HEO 115 Motor Grader Operator . . . . .	6
HEO 116 Excavator and Backhoe Operation . . . . .	6
HEO 182 Special Topics . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>27</b>

## INDUSTRIAL ELECTRONICS TECHNOLOGY

The Industrial Electronics program prepares students for a career as an electronic technician. Technicians are involved in all phases of industrial and commercial installation, service, and repair of today's modern equipment. Students will learn about many areas of electronics including basic electronics, solid-state devices, pulse and switching circuits, computers, robotics, communications, tools and test equipment. Students can become a certified technician after successfully completing the course.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I. . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking. . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	

<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . . <i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	3
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
<i>Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.</i>	
<b>Area V - Technical Concentration and Electives:</b>	<b>54</b>
ORI 101 Orientation to College . . . . .	1
ILT 100 Applied Electronic Computations . . . . .	3
ILT 106 Concepts of Direct Current . . . . .	5
ILT 107 Concepts of Alternating Current . . . . .	5
ILT 111 Concepts of Solid State Electronics . . . . .	5
ILT 112 Concepts of Digital Electronics . . . . .	5
ILT 113 Concepts of Electronic Circuits . . . . .	5
ILT 164 Circuits Fabrication . . . . .	1
ILT 169 Hydraulics and Pneumatics I . . . . .	3
ILT 194 Programmable Controllers I . . . . .	3
ILT 197 Motor Controls I . . . . .	3
ILT 216 Industrial Robotics . . . . .	3
ILT 217 Industrial Robotics Lab . . . . .	2
ILT 222 Advanced Programmable Logic Controllers . . . . .	3
ILT 223 Advanced Programmable Logic Controllers Lab . . . . .	2
ILT 271 Independent Study . . . . .	2
Electives . . . . .	3
<b>Recommended Electives</b>	
ILT 115 Advanced Industrial Controls . . . . .	3
ILT 116 Advanced Industrial Controls Lab . . . . .	2
ILT 148 Automatic Control Systems . . . . .	3
ILT 149 Automatic Control Systems Lab . . . . .	2
ILT 166 Motors and Transformers I . . . . .	3
ILT 167 AC/DC Machinery and Controls I . . . . .	3
ILT 180 Special Topics . . . . .	3
ILT 195 Troubleshooting Techniques I . . . . .	3
ILT 251 RF Communications . . . . .	3
ILT 252 Digital Communications . . . . .	3
ILT 262 Certification Preparation . . . . .	3
ILT 280 Special Topics . . . . .	3
ILT 291 Cooperative Education . . . . .	3
ILT 292 Cooperation Education . . . . .	3
ILT 293 Cooperation Education . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>75-76</b>

**CERTIFICATE**

	<b>Semester Hours</b>
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3

<b>Technical Concentration and Electives:</b>	<b>48</b>
ORI 101 Orientation to College . . . . .	1
ILT 100 Applied Electronic Computations . . . . .	3
ILT 106 Concepts of Direct Current . . . . .	5
ILT 107 Concepts of Alternating Current . . . . .	5
ILT 111 Concepts of Solid State Electronics . . . . .	5
ILT 112 Concepts of Digital Electronics . . . . .	5
ILT 113 Concepts of Electronic Circuits . . . . .	5
ILT 164 Circuits Fabrication . . . . .	1
ILT 169 Hydraulics and Pneumatics I . . . . .	3
ILT 194 Programmable Controllers I . . . . .	3
ILT 197 Motor Controls I . . . . .	3
ILT 216 Industrial Robotics . . . . .	3
ILT 217 Industrial Robotics Lab . . . . .	2
ILT 271 Independent Study . . . . .	2
Electives . . . . .	2
<b>Recommended Electives</b>	
ILT 115 Advanced Industrial Controls . . . . .	3
ILT 116 Advanced Industrial Controls Lab . . . . .	2
ILT 148 Automatic Control Systems . . . . .	3
ILT 149 Automatic Control Systems Lab . . . . .	2
ILT 166 Motors and Transformers I . . . . .	3
ILT 167 AC/DC Machinery and Controls I . . . . .	3
ILT 180 Special Topics . . . . .	3
ILT 195 Troubleshooting Techniques I . . . . .	3
ILT 222 Advanced Programmable Logic Controllers . . . . .	3
ILT 223 Advanced Programmable Logic Controllers Lab . . . . .	2
ILT 251 RF Communications . . . . .	3
ILT 252 Digital Communications . . . . .	3
ILT 262 Certification Preparation . . . . .	3
ILT 280 Special Topics . . . . .	3
ILT 291 Cooperative Education . . . . .	3
ILT 292 Cooperation Education . . . . .	3
ILT 293 Cooperation Education . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>60</b>

**SHORT-TERM CERTIFICATE**

	<b>Semester Hours</b>
<b>Technical Concentration:</b>	<b>25</b>
ILT 100 Applied Electronic Computations . . . . .	3
ILT 106 Concepts of Direct Current . . . . .	5
ILT 107 Concepts of Alternating Current . . . . .	5
ILT 111 Concepts of Solid State Electronics . . . . .	5
ILT 113 Concepts of Electronic Circuits . . . . .	5
ILT 271 Independent Study . . . . .	2
<b>Total Hours Required for Short-Term Certificate</b>	<b>25</b>

**INDUSTRIAL MAINTENANCE TECHNOLOGY**

The Industrial Maintenance Technology program provides students with a broad knowledge base in a variety of areas related to industrial maintenance. This program offers a technology and skills update in maintenance courses for those with previous manufacturing or maintenance experience and/or other technical training.

**SHORT-TERM CERTIFICATE**

	<b>Semester Hours</b>
<b>Technical Concentration and Electives:</b>	<b>27</b>
INT 117 Principles of Industrial Mechanics . . . . .	3
INT 118 Fundamentals of Industrial Hydraulics and Pneumatics . . . . .	3

INT 126 Preventive Maintenance . . . . . 3  
 INT 127 Principles of Industrial Pumps and Piping Systems . . . . . 3  
 INT 221 DC Fundamentals . . . . . 3  
 INT 223 AC Fundamentals . . . . . 3  
 INT 234 Principles of Industrial Maintenance, Welding and Metal Cutting Techniques . . . . . 3  
 Electives . . . . . 6  
 Electives to be chosen from ILT, ELT, MTT, DDT, WDT, and ACR  
**Total Hours Required for Short-Term Certificate** . . . . . 27

HED 221 Personal Health . . . . . 3  
*As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.*  
 HED 299 Special Topics/Stress Management . . . . . 2  
 MTT 281 Special Topics in Machine Tool Technology . . . . . 3  
 MTT 291 Cooperative Education in Machine Tool Technology . . . . . 3  
 WKO 107 WorkKeys Targeted Instruction . . . . . 0-3  
**Total Hours Required for Degree** . . . . . 64-67

## MACHINE TOOL TECHNOLOGY

This program prepares students for positions such as machinist apprentice, maintenance machinist, machine tool operator, and general machinist. Machinists use stationary, power-driven devices to shape or form engineered materials to precise measurements. This precision makes possible the production of thousands of identical parts which may be easily interchanged in the assembly or repair of final products. Shelton’s machine tool program teaches students how to set up and operate the various types of machines common to industry.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology.	
<b>Area V - Technical Concentration and Electives:</b>	<b>43-46</b>
ORI 101 Orientation to College . . . . .	1
MTT 100 Machining Technology I . . . . .	6
MTT 103 Machining Technology II . . . . .	6
MTT 107 Machining Calculations I . . . . .	3
MTT 108 Machinist Handbook Functions . . . . .	3
MTT 126 Basic Blueprint Reading . . . . .	3
MTT 127 Metrology . . . . .	3
MTT 129 Lathe Operations . . . . .	6
MTT 136 Milling Operation . . . . .	6
MTT 146 Precision Grinding Machines . . . . .	6
Electives . . . . .	0-3
<b>Recommended Electives</b>	
CNC 230 Special Topics in Computerized Numerical Control . . . . .	3
DDT 104 Basic Computer-Aided Drafting . . . . .	3
HED 199 Ecological Approach to Health and Fitness or	

## CERTIFICATE

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration:</b>	<b>43</b>
ORI 101 Orientation to College . . . . .	1
MTT 100 Machining Technology I . . . . .	6
MTT 103 Machining Technology II . . . . .	6
MTT 107 Machining Calculations I . . . . .	3
MTT 108 Machinist Handbook Functions . . . . .	3
MTT 126 Basic Blueprint Reading . . . . .	3
MTT 127 Metrology . . . . .	3
MTT 129 Lathe Operations . . . . .	6
MTT 136 Milling Operation . . . . .	6
MTT 146 Precision Grinding Machines . . . . .	6
<b>Total Hours Required for Certificate</b>	<b>43</b>

## SHORT-TERM CERTIFICATE

	Semester Hours
<b>Technical Concentration and Electives:</b>	<b>24</b>
MTT 100 Machining Technology I . . . . .	6
MTT 126 Basic Blueprint Reading . . . . .	3
MTT 127 Metrology . . . . .	3
MTT 129 Lathe Operations . . . . .	6
MTT 136 Milling Operation . . . . .	6
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

## MANAGEMENT AND SUPERVISION CHILD CARE

This curriculum guide is a variation of the management and supervision degree designed for students who wish to own, direct, or manage child care facilities.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	

<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b>	
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College. . . . .	1
BUS 100 Introduction to Business . . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I. . . . .	3
BUS 242 Principles of Accounting II . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
Electives . . . . .	18
<b>Recommended Electives. Students must choose 15 credit hours in CHD courses.</b>	
Students who wish to specialize in child care should consider the following courses:	
CHD 100 Introduction to Early Care and Education of Children . . . . .	3
CHD 201 Child Growth and Development Principles. . . . .	3
CHD 202 Children's Creative Experiences . . . . .	3
CHD 203 Children's Literature and Language Development . . . . .	3
CHD 204 Methods and Materials for Teaching Children . . . . .	3
CHD 205 Program Planning for Educating Young Children . . . . .	3
CHD 206 Children's Health and Safety. . . . .	3
CHD 208 Administration of Child Development Programs . . . . .	3
CHD 209 Infant and Toddler Education Programs. . . . .	3
CHD 210 Educating Exceptional Children . . . . .	3
CHD 215 Supervised Practical Experience in Childhood Development . . . . .	3
ECO 232 Principles of Microeconomics . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health. . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management. . . . .	2
WKO 107 Workplace Skills Preparation. . . . .	1
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## MANAGEMENT AND SUPERVISION GENERAL BUSINESS

This curriculum is designed to be a two year terminal degree which prepares students for a career in business with emphasis on small business or small office environment. This course of study is designed to provide a basic background in the various aspects of business with flexibility for the student to specialize in areas of interest.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I. . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking. . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b>	
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College. . . . .	1
BUS 100 Introduction to Business. . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I. . . . .	3
BUS 242 Principles of Accounting II . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
Electives . . . . .	18
<b>Recommended Electives Students must select a minimum of 15 credit hours in BUS, ECO, RLS or CIS courses.</b>	
BUS 186 Elements of Supervision . . . . .	3
BUS 189 Human Relationships. . . . .	3
BUS 276 Human Resources Management . . . . .	3
BUS 279 Small Business Management. . . . .	3
RLS 101 Real Estate Principles . . . . .	4
HED 199 Ecological Approach to Health and Fitness or	
HED 221 Personal Health: . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction: . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## MANAGEMENT AND SUPERVISION INFORMATION TECHNOLOGY

This curriculum guide is designed for students who would like to learn the terminology and the concepts of business and combine these skills with a general background in computer software typically found on most personal computers. Graduates of this program would be able to perform basic spreadsheet tasks, very basic network functions, some basic Web design and maintenance as well as being able to handle other functions typically needed in a general business environment.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I – Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II – Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III – Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV – History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b> Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V – Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College . . . . .	1
BUS 100 Introduction to Business . . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I . . . . .	3
BUS 242 Principles of Accounting II . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
CIS 117 Database Management Software Applications . . . . .	3
CIS 203 Introduction to the Information Highway . . . . .	3
CIS 286 Computerized Management Information Systems . . . . .	3
CIS 299 Directed Studies in Computer Science . . . . .	3
Electives . . . . .	6
<b>Recommended Electives Students must select a minimum of 3 credit hours from any BUS or CIS courses.</b>	
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction: . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## MANAGEMENT AND SUPERVISION PARALEGAL

This curriculum guide is a variation of the Management and Supervision degree designed for students interested in performing paralegal functions for small law firms.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I – Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II – Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III – Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV – History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b> Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V – Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College . . . . .	1
BUS 100 Introduction to Business . . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I . . . . .	3
BUS 242 Principles of Accounting II . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
PRL 101 Introduction to Paralegal Studies . . . . .	3
PRL 102 Basic Legal Research and Writing . . . . .	3
PRL 103 Advanced Legal Research and Writing . . . . .	3
PRL 262 Civil Law and Procedures . . . . .	3
Electives . . . . .	6
<b>Recommended Electives Students must select a minimum of three (3) credit hours from any PRL or RLS courses</b>	
RLS 101 Real Estate Principles . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health: . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management: . . . . .	2
WKO 107 WorkKeys Targeted Instruction: . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## MANAGEMENT AND SUPERVISION PROGRAMMING AND NETWORKING

This curriculum guide is a variation of the management and supervision degree designed for students who need an understanding of the terminology and concepts of business along with a background in some basic computer science programming. Graduates of this program would be able to perform functions for small business such as basic Web design, some customs programming and basic network problem-solving as well as being able to handle other functions typically needed in a general business environment.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b> Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College . . . . .	1
BUS 100 Introduction to Business . . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I . . . . .	3
BUS 242 Principles of Accounting II . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
Electives . . . . .	18
<b>Recommended Electives</b> . . . . .	
CIS 191 Introduction to Computer Programming Concepts . . . . .	3
CIS 193 Introduction to Computer Programming Concepts Lab . . . . .	1
CIS 203 Introduction to the Information Highway . . . . .	3
CIS 212 Visual Basic Programming . . . . .	3
CIS 273 Introduction to Networking Communication . . . . .	3
CIS 286 Computerized Management Information Systems . . . . .	3
CIS 299 Directed Studies in Computer Science . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health: . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management: . . . . .	2
WKO 107 WorkKeys Targeted Instruction: . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## MANAGEMENT AND SUPERVISION WELLNESS AND FITNESS MANAGEMENT

This curriculum guide is a variation of the Management and Supervision degree designed for students interested in the management of wellness and fitness facilities.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics <b>or</b> Choose from Anthropology, Economics, Geography History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College . . . . .	1
BUS 100 Introduction to Business . . . . .	3
BUS 215 Business Communications . . . . .	3
BUS 241 Principles of Accounting I . . . . .	3
BUS 263 Legal and Social Environment of Business . . . . .	3
BUS 275 Principles of Management . . . . .	3
BUS 285 Principles of Marketing . . . . .	3
Electives . . . . .	21
<b>Recommended Electives</b>	
Students must choose nine (9) hours in BUS courses, six (6) hours in REC courses, three (3) hours in HED courses, and three (3) hours in PED courses from the following list:	
BUS 186 Elements of Supervision . . . . .	3
BUS 189 Human Relationships . . . . .	3
BUS 279 Small Business Management . . . . .	3
HED 199 Ecological Approach to Health and Fitness. . . . .	3
HED 221 Personal Health . . . . .	3
HED 231 First Aid . . . . .	3
HED 299 Special Topics/Stress Management . . . . .	2
PED Electives . . . . .	3
REC 231 Health and Fitness Club Management . . . . .	3
REC 232 Health and Fitness Club Management Internship . . . . .	3
WKO 107 WorkKeys Targeted Instruction: . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>61-62</b>

## OFFICE ADMINISTRATION BOOKKEEPING/ACCOUNTING

This concentration is designed so that office administration graduates may be able to specialize in operations of the business office of typical businesses.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I – Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II – Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communications or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III – Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>Or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV – History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology . . . . .	3
<b>Area V – Technical Concentration and Electives:</b>	<b>46</b>
<b>43 hours if one of the listed OAD classes is taken as CIS for Area III</b>	
ORI 101 Orientation to College . . . . .	1
OAD 101 Beginning Keyboarding . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A)	3
OAD 126 Advanced Word Processing (also available as CIS 196B) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Record Keeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 232 Electronic OFFICE (also available as CIS 196 D) . . . . .	3
OAD 233 Trends in Office Technology . . . . .	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) . . . . .	3
BUS 241 Accounting I . . . . .	3
BUS 242 Accounting II . . . . .	3
ECO 232 Microeconomics . . . . .	3
CIS 196H Quickbooks I . . . . .	3
CIS 197A Quickbooks II . . . . .	3
Electives . . . . .	3
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>64-68</b>

## OFFICE ADMINISTRATION INFORMATION PROCESSING

A person in information processing obtains data from letters, books, surveys, reports, periodicals, the Internet, etc., and produces meaningful information into a desktop publishing document, work processing document or report. The main tools are a computer, computer application software, a printer, and the knowledge of how to integrate different software application programs. With training and experience in this area, one may become a supervisor, office manager, or a CEO.

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology . . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>43-46</b>
<b>43 hours if one of the listed OAD classes is taken as CIS for Area III</b>	
ORI 101 Orientation to College . . . . .	1
OAD 101 Beginning Keyboarding . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A)	3
OAD 126 Advanced Word Processing (also available as CIS 196B) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Record keeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 230 Electronic Publishing . . . . .	3
OAD 232 Electronic OFFICE (also available as CIS 196D) . . . . .	3
OAD 233 Trends in Office Technology . . . . .	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) . . . . .	3
OAD 244 Microsoft ACCESS (also available as CIS 196G) . . . . .	3
Electives . . . . .	6
<b>Recommended Electives: Students must select a minimum of 3 credit hours from OAD, CIS, or PRL courses.</b>	
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health: . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health.</i>	

*These courses transfer to most four-year colleges and universities as an elective.*

HED 299 Special Topics/Stress Management:.....	2
WKO 107 WorkKeys Targeted Instruction:.....	0-3
<b>Total Hours Required for Degree</b>	<b>64-68</b>

**CERTIFICATE**

<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introduction to Technical English I or	
ENG 101 English Composition I.....	3
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking.....	3
MAH 101 Introductory Mathematics I or	
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications.....	3
CIS 146 Microcomputer Applications.....	3
<b>Technical Concentration and Electives:</b>	<b>40</b>
ORI 101 Orientation to College.....	1
OAD 101 Beginning Keyboarding.....	3
OAD 103 Intermediate Keyboarding.....	3
OAD 125 Word Processing (also available as CIS 196A) ...	3
OAD 126 Advanced Word Processing (also available	
as CIS 196B).....	3
OAD 131 Business English.....	3
OAD 133 Business Communications.....	3
OAD 137 Electronic Financial Record keeping.....	3
OAD 138 Records and Information Management.....	3
OAD 230 Electronic Publishing.....	3
OAD 232 Electronic OFFICE (also available as CIS 196D)...	3
OAD 233 Trends in Office Technology.....	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) .	3
OAD 244 Microsoft ACCESS (also available as CIS 196G)...	3
Electives.....	6
<b>Recommended Electives: Students must select a minimum of</b>	
<b>6 credit hours from OAD, CIS or PRL courses.</b>	
<b>Total Hours Required for Certificate</b>	<b>58</b>

**OFFICE ADMINISTRATION  
LEGAL SECRETARY**

A legal secretary prepares legal papers and correspondence of a legal nature, such as wills, summonses, complaints, motions, and subpoenas using a personal computer. Practitioners review lay journals and other legal publications to identify court decisions pertinent to pending cases and submit articles to the firm's officials.

**ASSOCIATE IN APPLIED SCIENCE**

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I.....	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking.....	3
Fine Arts or Humanities Electives.....	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications.....	3
CIS 146 Microcomputer Applications.....	3

*or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.*

Math or Natural Science Elective.....	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or	
Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. ...	3
<b>Area V - Technical Concentration and Electives:</b>	<b>46</b>
<b>43 hours if one of the listed OAD classes in taken as CIS for Area III</b>	
ORI 101 Orientation to College.....	1
OAD 101 Beginning Keyboarding.....	3
OAD 103 Intermediate Keyboarding.....	3
OAD 125 Word Processing (also available as CIS 196A) ...	3
OAD 126 Advanced Word Processing (also available	
as CIS 196B).....	3
OAD 131 Business English.....	3
OAD 133 Business Communications.....	3
OAD 137 Electronic Financial Record keeping.....	3
OAD 138 Records and Information Management.....	3
OAD 232 Electronic OFFICE (also available as CIS 196D)...	3
OAD 233 Trends in Office Technology.....	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) .	3
PRL 101 Introduction to Paralegal Study.....	3
Electives.....	9
<b>Students must select 6 credit hours from CIS, OAD or PRL courses.</b>	
HED 199 Ecological Approach to Health and Fitness or	
HED 221 Personal Health:.....	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management:.....	2
WKO 107 WorkKeys Targeted Instruction:.....	0-3
<b>Total Hours Required for Degree</b>	<b>64-68</b>

**CERTIFICATE**

<b>General Education: (Areas I-IV):</b>	<b>12</b>
ENG 101 English Composition I.....	3
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking.....	3
MAH 101 Introductory Mathematics I or	
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications.....	3
CIS 146 Microcomputer Applications.....	3
<b>Technical Concentration and Electives:</b>	<b>46</b>
ORI 101 Orientation to College.....	1
OAD 101 Beginning Keyboarding.....	3
OAD 103 Intermediate Keyboarding.....	3
OAD 125 Word Processing (also available as CIS 196A) ...	3
OAD 126 Advanced Word Processing (also available	
as CIS 196B).....	3
OAD 131 Business English.....	3
OAD 133 Business Communications.....	3
OAD 137 Electronic Financial Record keeping.....	3
OAD 138 Records and Information Management.....	3
OAD 232 Electronic OFFICE (also available as CIS 196D)...	3
OAD 233 Trends in Office Technology.....	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) .	3
PRL 101 Introduction to Paralegal Study.....	3
Electives.....	9
<b>Recommended Electives: Students must select 9 credit hours from CIS, OAD or PRL courses.</b>	
<b>Total Hours Required for Certificate</b>	<b>58</b>

## OFFICE ADMINISTRATION MEDICAL RECORDS

A person who works with medical records is responsible for assembling patients' health information. A medical records employee must ensure all forms are present, properly identified, signed, and all necessary information is on a computer file. A medical records technician assigns a code to each diagnosis and procedure, consults a classification manual and relies on his/her knowledge of disease processes. A technician then uses a software program to assign the patient to one of several hundred "diagnosis-related groups." This determines the amount of reimbursement to the doctor/hospital if the patient is covered by Medicare or other insurance programs. A technician who specializes in coding is called a health information coder, medical recorder or coding specialist

**NOTE: This program is not designed to meet all of the requirements for accreditation, licensure, and certification for Registered Health Information Technician (RHIT), American Health Information Management Association (AHIMA) or other medical accrediting agencies.**

### ASSOCIATE IN APPLIED SCIENCE

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the integration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>43-49</b>
ORI 101 Orientation to College . . . . .	1
BIO 120 Medical Terminology . . . . .	3
BIO 150 Human Biology . . . . .	3
HIT 230 Medical Coding Systems I . . . . .	3
HIT 232 Medical Coding Systems II . . . . .	3
HIT 260 Preceptorship for Medical Coding (Internship) . . . . .	3
OAD 101 Beginning Keyboarding . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Recordkeeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3

OAD 200 Beginning Medical Transcription . . . . .	3
OAD 214 Medical Office Procedures . . . . .	3
Electives . . . . .	0-6
<b>Recommended Electives: Students must select a minimum of 3 credit hours in OAD or CIS courses.</b>	
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health . . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>64-71</b>

### CERTIFICATE

<b>General Education: (Areas I-IV):</b>	<b>12</b>
ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration and Electives:</b>	<b>46</b>
ORI 101 Orientation to College . . . . .	1
BIO 120 Medical Terminology . . . . .	3
BIO 150 Human Biology . . . . .	3
HIT 230 Medical Coding Systems I . . . . .	3
HIT 232 Medical Coding Systems II . . . . .	3
HIT 260 Preceptorship for Medical Coding (Internship) . . . . .	3
OAD 101 Beginning Keyboarding . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Recordkeeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 200 Beginning Medical Transcription . . . . .	3
OAD 214 Medical Office Procedures . . . . .	3
Electives . . . . .	3
<b>Recommended Electives: Students must select a minimum of 3 credit hours in OAD or CIS courses.</b>	
<b>Total Hours Required for Certificate</b>	<b>58</b>

## OFFICE ADMINISTRATION MEDICAL TRANSCRIPTION

A medical transcriptionist prepares a written document from a physician's dictation about a patient's health status, i.e. surgical procedures, medical condition, prognosis, etc. Educational preparation requires medical transcription, proofreading, report format, editing and production.

**NOTE: This program is not designed to meet all of the requirements for accreditation, licensure and certification for Registered Health Information Technician (RHIT), American Health Information Management Association (AHIMA), or other medical accreditation agencies.**

**ASSOCIATE IN APPLIED SCIENCE**

	Semester Hours
<b>Area I - Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II - Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking . . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III - Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course.</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV - History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V - Technical Concentration and Electives:</b>	<b>43-49</b>
ORI 101 Orientation to College. . . . .	1
BIO 120 Medical Terminology . . . . .	3
BIO 150 Human Biology . . . . .	3
OAD 101 Beginning Keyboarding. . . . .	3
OAD 102 Speed and Accuracy . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Recordkeeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 200 Beginning Medical Transcription. . . . .	3
OAD 212 Intermediate Medical Transcription . . . . .	3
OAD 213 Advanced Medical Transcription. . . . .	3
OAD 214 Medical Office Procedures . . . . .	3
Electives. . . . .	0-6
<b>Recommended Electives: Students must select a minimum of 3 credit hours in OAD or CIS courses.</b>	
HED 199 Ecological Approach to Health and Fitness or HED 221 Personal Health. . . . .	3
<i>As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.</i>	
HED 299 Special Topics/Stress Management . . . . .	2
WKO 107 WorkKeys Targeted Instruction . . . . .	0-3
<b>Total Hours Required for Degree</b>	<b>64-71</b>

**CERTIFICATE**

<b>General Education: (Areas I-IV):</b>	<b>12</b>
ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking. . . . .	3
MAH 101 Introductory Mathematics I or MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<b>Technical Concentration:</b>	<b>46</b>
ORI 101 Orientation to College. . . . .	1
BIO 120 Medical Terminology . . . . .	3
BIO 150 Human Biology . . . . .	3

OAD 101 Beginning Keyboarding. . . . .	3
OAD 102 Speed and Accuracy . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Record Keeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 200 Beginning Medical Transcription. . . . .	3
OAD 212 Intermediate Medical Transcription . . . . .	3
OAD 213 Advanced Medical Transcription. . . . .	3
OAD 214 Medical Office Procedures . . . . .	3
Electives . . . . .	3

**Recommended Electives: Students must select  
3 credit hours in OAD or CIS courses.**

**Total Hours Required for Certificate 58**

**OFFICE ADMINISTRATION  
PARALEGAL**

This concentration is designed so that office adminis-  
tration graduates may be able to have substantial paralegal  
background for employment in a law office.

**ASSOCIATE IN APPLIED SCIENCE**

	Semester Hours
<b>Area I – Written Composition:</b>	<b>3</b>
ENG 101 English Composition I . . . . .	3
<b>Area II – Humanities and Fine Arts:</b>	<b>6</b>
SPH 106 Fundamentals of Oral Communication or SPH 107 Fundamentals of Public Speaking. . . . .	3
Fine Arts or Humanities Electives . . . . .	3
<i>Choose from Art, Dance, Ethics, Humanities, Literature, Music, Philosophy, Religion, or Theater.</i>	
<b>Area III – Natural Science or Mathematics:</b>	<b>9-10</b>
MTH 100 Intermediate College Algebra or MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3
<i>Or demonstrated computer literacy skills or the inte- gration of computer proficiencies within a required discipline-specific course</i>	
Math or Natural Science Elective . . . . .	3-4
<b>Area IV – History, Social, and Behavioral Sciences:</b>	<b>3</b>
ECO 232 Principles of Microeconomics or Choose from Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology. . . . .	3
<b>Area V – Technical Concentration and Electives:</b>	<b>46</b>
<b>Can be 43 hours if one of the listed OAD classes is taken as CIS for Area III</b>	
ORI 101 Orientation to College. . . . .	1
OAD 101 Beginning Keyboarding. . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Record Keeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 233 Trends in Office Technology . . . . .	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) . . . . .	3
PRL 101 Introduction to Paralegal Study. . . . .	3
PRL 102 Basic Legal Research and Writing. . . . .	3
PRL 103 Advanced Legal Research and Writing. . . . .	3
PRL 262 Civil Law and Procedures . . . . .	3
Electives . . . . .	6

**Recommended Electives: Students must select a minimum of 3 credit hours from RLS 101, BUS 263, or PRL courses.**

HED 199 Ecological Approach to Health and Fitness  
or HED 221 Personal Health . . . . . 3

*As a component of a well-balanced educational plan, Shelton State encourages degree students to include a three (3) semester hour course in health. These courses transfer to most four-year colleges and universities as an elective.*

HED 299 Special Topics/Stress Management . . . . . 3

WKO 107 WorkKeys Targeted Instruction . . . . . 0-3

**Total Hours Required for Degree 64-68**

**SHORT – TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration:</b>	<b>27 Semester Hours</b>
OAD 101 Beginning Keyboarding . . . . .	3
OAD 103 Intermediate Keyboarding . . . . .	3
OAD 125 Word Processing (also available as CIS 196A) . . .	3
OAD 131 Business English . . . . .	3
OAD 133 Business Communications . . . . .	3
OAD 137 Electronic Financial Record keeping . . . . .	3
OAD 138 Records and Information Management . . . . .	3
OAD 233 Trends in Office Technology . . . . .	3
OAD 243 EXCEL (or CIS 286) (also available as CIS 196E) . 3	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>27</b>

**PARALEGAL**

**SHORT – TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration:</b>	<b>24 Semester Hours</b>
PRL 101 Introduction to Paralegal Study . . . . .	3
PRL 102 Basic Legal Research and Writing . . . . .	3
PRL 103 Advanced Legal Research and Writing . . . . .	3
PRL 262 Civil Law and Procedures . . . . .	3
Paralegal (PRL) Elective Courses . . . . .	12
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

**WELDING**

The Welding program is designed to establish welding skills necessary for entry-level job placement and to enhance the skills of experienced welders in various arc welding processes used by industry. The program also provides welder certification training upon successful completion of this program. The student will be able to make quality welds, layout and fabricate various pipe connections, perform repair work, and have knowledge of welding codes and blueprint reading.

**CERTIFICATE**

	Semester Hours
<b>General Education: (Areas I-IV):</b>	<b>12</b>
COM 100 Introductory Technical English I or	
ENG 101 English Composition I . . . . .	3
SPH 106 Fundamentals of Oral Communication or	
SPH 107 Fundamentals of Public Speaking . . . . .	3
MAH 101 Introductory Mathematics I or	
MTH 100 Intermediate College Algebra or	
MTH 116 Mathematical Applications . . . . .	3
CIS 146 Microcomputer Applications . . . . .	3

	43
<b>Technical Concentration:</b>	
ORI 101 Orientation to College . . . . .	1
WDT 108 Shielded Metal Arc Theory . . . . .	3
WDT 109 SMAW Fillet/PAC/CAC . . . . .	3
WDT 110 Industrial Blueprint Reading . . . . .	3
WDT 119 Gas Metal Arc Theory . . . . .	3
WDT 120 Shielded Metal Arc Grooves Theory . . . . .	3
WDT 122 Shielded Metal Arc Lab . . . . .	3
WDT 123 SMAW Fillet/PAC/CAC Lab . . . . .	3
WDT 124 Gas Metal Arc Lab . . . . .	3
WDT 125 Shielded Metal Arc Grooves Lab . . . . .	3
WDT 217 SMAW Carbon Pipe Theory . . . . .	3
WDT 221 Pipe Fitting and Fabrication . . . . .	3
WDT 228 Gas tungsten Arc Theory . . . . .	3
WDT 257 SMAW Carbon Pipe Lab . . . . .	3
WDT 268 Gas Tungsten Arc Lab . . . . .	3
<b>Total Hours Required for Certificate</b>	<b>54-55</b>

**SHORT – TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration:</b>	<b>24</b>
WDT 108 Shielded Metal Arc Theory . . . . .	3
WDT 109 SMAW Fillet/PAC/CAC . . . . .	3
WDT 119 Gas Metal Arc Theory . . . . .	3
WDT 120 Shielded Metal Arc Grooves Theory . . . . .	3
WDT 122 Shielded Metal Arc Lab . . . . .	3
WDT 123 SMAW Fillet/PAC/CAC Lab . . . . .	3
WDT 124 Gas Metal Arc Lab . . . . .	3
WDT 125 Shielded Metal Arc Grooves Lab . . . . .	3
<b>Total Hours Required for Short-Term Certificate</b>	<b>24</b>

**WELLNESS EXERCISE INSTRUCTOR**

The Wellness Exercise Instructor certificate program is designed to train students to be health and fitness instructors for all populations. This program provides a Practicum which gives the students extensive experience and training in this field. It also provides students with knowledge in basic anatomy, exercise physiology, kinesiology, and nutrition to prepare the student with the knowledge and skills to meet the growing demands in this industry.

**SHORT – TERM CERTIFICATE**

	Semester Hours
<b>Technical Concentration:</b>	<b>20</b>
ORI 100 Orientation to College . . . . .	1
CFS 199 Healthy Cooking . . . . .	1
HED 231 First Aid and Safety . . . . .	3
HED 221 Personal Health . . . . .	3
PED 101/102 Slimnastics I or II . . . . .	1
PED 103/104 Weight Training . . . . .	1
PED 118/119 General Conditioning . . . . .	1
PED 107 Aerobic Dance . . . . .	1
PED 105 Personal Fitness . . . . .	1
PED 223 Methods of Instruction . . . . .	3
PED 295 Practicum in Physical Education . . . . .	2
HED 299 Special Topics/Stress Management . . . . .	2
<b>Total Hours Required for Short-Term Certificate</b>	<b>20</b>