

# Certificate Programs

## Accounting Assistant (Certificate)

The Accounting Assistant Certificate curriculum provides a beginning base of skills, information, and techniques for those students who have an interest in the area of accounting. Students who complete the certificate could be employed in entry-level accounting positions.

### FALL REQUIREMENTS

ACC* 115	Financial Accounting	4
BMG* 202	Principles of Management	3
**Elective		3-4
Subtotal:		10-11

### SPRING REQUIREMENTS

+ ACC* 123	Accounting Software Applications OR	3
+ CSA* 135	Spreadsheet Applications	
+ ACC* 118	Managerial Accounting	4
**Elective		3-4
Subtotal:		10-11
MINIMUM TOTAL:		20

\*\* 6-8 credits from among courses in Accounting (ACC\* 108 or higher), BBG\*, BES\*, BFN\*, BMG\*, BMK\*, or CSA\*. All courses must be 3 credits or more.

## Advanced Manufacturing Welding Technology (Certificate)

This certificate provides detailed knowledge of welding principles as applied to modern manufacturing processes and applications. It will provide the student requisite advanced skills necessary to welding in today's technological environment. Students will be able to demonstrate and apply basic metallurgy principles and guidelines in industrial applications and will understand and show manual dexterity/competence in performing code acceptable weldments on various metals

### REQUIRED COURSES

+ MFG* 267	Metallurgy	3
+ MFG* 268	Welding V	3
+ MFG* 269	Welding VI	3

MINIMUM TOTAL: 9

## Advanced Manufacturing Machine Technology (Certificate)

The objective of the certificate program is to provide a primary level of essential skills and knowledge to individuals seeking a background in the machine technology profession. A prerequisite for this certificate program is completion of Machine Technology Developmental courses MFG\* 050, MFG\* 051, MFG\* 071, MFG\* 080, MFG\* 091, MFG\* 092, and MFG\* 093 or consent of the program director. This certificate provides entry level skills to those seeking positions in machine technology environments.

### REQUIRED COURSES

CAD* 110	Introduction to AutoCAD OR	3
CAD* 220	Parametric Designs (Solidworks)	
+ MFG* 124	Blueprint Reading I	2
+ MFG* 151	Manufacturing Machinery - Drill Press and Saw	1
+ MFG* 152	Manufacturing Machinery - Grinding	2
+ MFG* 153	Manufacturing Machinery - Benchwork	2
+ MFG* 154	Manufacturing Machinery - Lathe I	2
+ MFG* 155	Manufacturing Machinery - Milling I	2
+ MFG* 156	Manufacturing Machinery - CNC I	2
+ MFG* 105	Manufacturing Math II	3
+ MFG* 125	Blueprint Reading II	3
QUA* 114	Principles of Quality Control	3
+ MFG* 254	Manufacturing Machinery - Lathe II	3
+ MFG* 255	Manufacturing Machinery - Milling II	3
+ MFG* 256	Manufacturing Machinery - CNC II	3

MINIMUM TOTAL: 34

## Business Administration (Certificate)

The courses in this certificate provide a solid background for either immediate job needs or eventual further studies in business. All courses will also apply to a business degree at ACC.

### REQUIREMENTS

BMG* 202	Principles of Management	3
+ BMK* 201	Principles of Marketing	3
+ ENG* 101	Composition	3
	(Minimum "C" grade required)	
+ CSA*, CSC*, or CST* Elective		3-4
Four courses selected from Business OR		12-16
Two courses from Business and two courses from Accounting		

MINIMUM TOTAL: 24

## Early Childhood Education (Certificate)

The Early Childhood Education Certificate is designed to provide students with the opportunity to complete a course of study which will prepare them to work in the field of early care and education. It is also designed for students who are already employed in an early care situation and desire to improve their knowledge and competency in working with young children. Students who complete this certificate may apply credits earned towards the Associate in Science degree and all students earning the A.S. degree also earn the Early Childhood Education Certificate.

### REQUIREMENTS

ECE* 101	Introduction to Early Childhood Education	3
ECE* 103	Creative Experiences/Children OR	3
ECE* 176	Health, Safety, & Nutrition	
+ ECE* 210	Observation, Participation & Seminar	3
+ ECE* 231	Early Language & Literacy Development	3
+ ECE* 215	The Exceptional Learner	3
**ECE*	Early Childhood Education Elective	3
+ ENG* 101	Composition (Minimum "C" grade required)	3
ENG* 114	Children's Literature	3
SOC* 190	Self and Others: Dynamics of Diversity	3
COM* 173	Public Speaking OR	3
THR* 110	Acting I	

MINIMUM TOTAL: 30

\*\*Early Childhood Education Electives: ECE\* 103, ECE\* 106, ECE\* 109, ECE\* 141, ECE\* 176, ECE\* 180, ECE\* 215, ECE\* 225, ECE\* 275.

## Early Childhood Administration (Certificate)

The Early Childhood Administration Certificate will acknowledge that professionals working in the field of early care and education and school age care have knowledge and competencies required of those who lead such programs. This certificate consists of five courses (15 credits) and is designed to give the students administration course work for the Connecticut Director's Credential (CDC) issued by Charter Oak State College. In addition, students are required to have an A.S. Degree in Early Childhood Education or a related field with 12 credits in Early Childhood Education to meet the initial level of the CDC Credential.

### REQUIREMENTS

+ ECE* 206	Administration. and Supervision of Early Childhood Programs	3
------------	--	---

*(This course is designed to meet the requirement for the CT Director's Credential at Charter Oak State College and as the comprehensive Introductory Administration and Supervision survey course AND meets the licensing 3 credit regulation for directors.)*

+ ECE* 212	Administrative Leadership in Early Childhood Programs	3
------------	--	---

*(Successful completion of ECE 206 is required to take ECE 212)*

+ECE* 275	Child, Family, and School Relationships	3
-----------	--	---

*(This course meets the Child/Family/School requirement for the CT Director Credential)*

ACC* 100	Basic Accounting	<b>OR</b>
ACC* 103	Bookkeeping	3

*(This course meets the Budget/Fiscal requirement for the CT Director Credential)*

+ BMG* 220	Human Resources Management	3
------------	----------------------------	---

MINIMUM TOTAL: 15

*(BMG\* 220 meets the Leadership requirement for the CT Director Credential. )*

*(NOTE: The prerequisite for BMG\* 220 will be waived for students who already have an A.S. Degree in Early Childhood Education or a B.S. Degree in a related field.)*

## Entrepreneur (Certificate)

This certificate seeks to assist people in our region who wish to explore starting their own profit or not-for-profit organization, or work in an entrepreneurial department of a larger organization. This certificate intentionally contains elective courses for students in the arts, media, social services, education (or more traditional business fields) to develop their skills both in a field of choice and entrepreneurship.

### REQUIREMENTS

BMG* 202	Principles of Management	3
+ BMK* 201	Principles of Marketing	3
BES* 118	Small Business Management	OR
BES* 218	Entrepreneurship	3
+ BBG* 294	Business Internship	3
	One course in ACC*, or CSA*	3
	Three courses with approval of Department Chair	9-12
		MINIMUM TOTAL: 24

## Gerontology (Certificate)

Gerontology is the multidisciplinary study of the biological, psychological, and social aspects of aging. By completing the one-year certificate program, students may find immediate opportunity for employment in professional and paraprofessional entry-level positions at human service agencies, senior centers, residential communities, health care facilities, and other agencies that provide much needed services for the elderly. For others, this certificate will allow them to further enhance their knowledge of gerontology.

### REQUIREMENTS

+ ENG* 101	Composition	3
	Minimum "C" grade required)	
SOC* 190	Self and Others: Dynamics of Diversity	3
COM* 173	Public Speaking	OR
THR* 110	Acting I	3
HSE* 101	Introduction to Human Services	3
PSY* 111	General Psychology I	3
+ PSY* 210	Death and Dying	3
SOC* 101	Principles of Sociology	3
SOC* 114	Sociology of Aging	3
+ MAT* 137	Intermediate Algebra or higher	OR 3-4
+ MAT* 123	Elementary Statistics	
		MINIMUM TOTAL: 27

## Health Career Pathway (Certificate)

This program is designed to assist the student to achieve success in health care programs. Students will be provided with the foundation necessary for health care professions. Credits from this program may be applied toward health care program requirements within Connecticut's Community College System. However, completion of this program does not guarantee an automatic acceptance into any health care program. Students are responsible for verifying specific requirements for their program of interest.

### REQUIRED COURSES

+ ENG* 101	Composition	3
+ MAT* 137	Intermediate Algebra	3
PSY* 111	General Psychology I	3
SOC* 101	Principles of Sociology	3
+ BIO* 211	Anatomy & Physiology I	4
+ BIO* 212	Anatomy & Physiology II	4
+ BIO* 235	Microbiology	4
+ CHE* 111	Concepts of Chemistry	4
		MINIMUM TOTAL: 28

## Human Services Management (Certificate)

This certificate will provide students with the opportunity to expand their knowledge of management styles within human service agencies as well as the field of human resources. Students may pursue this certificate for professional development and/or as a means of formal training. All courses will apply to the human services degree at Asnuntuck.

### REQUIREMENTS

HSE* 101	Introduction to Human Services	3
+ HSE* 241	Human Services Agencies and Organizations	3
BMG* 202	Principles of Management	3
+ BMG* 220	Human Resources Management	OR
+ BMG* 210	Organizational Behavior	3
ACC*	Any 3-4 credit Accounting Course	3-4
+ ENG* 101	Composition	3
	(Minimum "C" grade required)	
PSY* 111	General Psychology I	OR
SOC* 101	Principles of Sociology	3
SOC* 190	Self and Others: Dynamics of Diversity	3
+ MAT*	Any Math Course above MAT*100	3-4
		MINIMUM TOTAL: 27

## Manufacturing Electronics Fundamentals (Certificate)

This certificate provides detailed knowledge of electrical and electronic principles as applied to the design and operation of modern, high-speed manufacturing and assembly equipment. Completing this certificate will provide the student requisite skills necessary to troubleshoot any electronic problems associated within the manufacturing environment.

### REQUIRED COURSES

+ MFG* 133	Mathematics for Electricity & Electronics	3
+ MFG* 137	Circuit Theory	3
+ MFG* 138	Digital Fundamentals	3
+ MFG* 139	Circuit Theory II	3
+ MFG* 140	Robotics	3

MINIMUM TOTAL: 15

## Manufacturing Electronics Systems & Controllers (Certificate)

This certificate provides detailed knowledge of electrical and electronic principles as applied to the design and operation of modern, high-speed manufacturing and assembly equipment. Completing this certificate will provide the student requisite skills necessary to troubleshoot any electronic problems associated within the manufacturing environment. Note: Completion of Manufacturing Electronic Fundamentals Certificate required, or consent of instructor.

### REQUIRED COURSES

+ MFG* 142	Electronic Circuits & Devices	3
+ MFG* 143	Industrial Motor Controls	3
+ MFG* 145	Electronic Variable Speed Drive Systems	3
+ MFG* 146	Programmable Logic Controllers	3
+ MFG* 147	Microprocessor/Microcontrollers	3

MINIMUM TOTAL: 15

## Manufacturing Electro-Mechanical Maintenance Technology (Certificate)

This certificate will provide the student with prerequisite skills necessary to several diverse fields such as manufacturing, health industry, distribution systems, machining industry and engineering. The technology of computer directed design, production, warehousing, distribution and wholesale and retailing requires the knowledge and skills inherent in the certificate program.

### REQUIRED COURSES

+ MFG* 158	Pneumatics & Hydraulics	3
+ MFG* 159	Industrial Maintenance	3
+ MFG* 162	CNC Maintenance & Repair I	3
+ MFG* 163	CNC Maintenance & Repair II	3
+ MFG* 164	Electro-Mechanical Seminar/Internship	4

MINIMUM TOTAL: 16

## Manufacturing Welding Technology Applications (Certificate)

This certificate provides detailed knowledge of welding principles as applied to modern manufacturing processes and applications. It will provide the student requisite advanced skills necessary to welding in today's technological environment. Students will be able to demonstrate a basic knowledge of semiautomatic, automatic, robotic, CNC, resistance welding, LBW, as well as other welding procedures and will demonstrate knowledge of what is required for weldments to meet specific standards to ensure product, building, or other structural safety. Completion of the Manufacturing Welding Technology Fundamentals Certificate is required, or the consent of instructor.

### REQUIRED COURSES

+ MFG* 270	Welding Automation and other Welding Processes	3
+ MFG* 273	Welding Codes, Testing, and Certifications	3
+ QUA* 114	Principles of Quality Control	3

MINIMUM TOTAL: 9

## Manufacturing Welding Technology Fundamentals (Certificate)

This certificate provides detailed knowledge of welding principles as applied to modern manufacturing processes and applications. It will provide the student requisite entry level skills necessary to welding in today's technological environment. Students will be able to demonstrate equipment knowledge and competence in the performance of various welding processes/techniques.

### REQUIRED COURSES

+ MFG* 105	Manufacturing Math II	3
+ MFG* 124	Blueprint Reading I	2
+ MFG* 128	Blueprint Reading for Welders	3
+ MFG* 157	Welding I	3
+ MFG* 257	Welding II	3
+ MFG* 265	Welding III	3
+ MFG* 266	Welding IV	3

MINIMUM TOTAL: 20

## Marketing (Certificate)

The marketing certificate program is designed to provide a focus on the marketing process as a strategic decision-making skill. The program will enhance career opportunities for those currently employed in marketing related positions or those seeking such positions who lack the necessary marketing concepts to make appropriate marketing decisions.

### REQUIREMENTS

+ ENG* 101	Composition (Minimum "C" grade required)	3
	BMG* 202 Principles of Management	3
+ BMK* 201	Principles of Marketing	3
	Select two BMK* courses (at least 6 credits)	6
	One additional course (3 credit minimum) from BBG*, BES*, BFN*, BMG*, CSA*	3
	One ACC* course (3 credit minimum)	3-4

MINIMUM TOTAL: 21

## Office User Specialist (Certificate)

The Office User Specialist Certificate is designed to prepare students to enter the workforce as computer professionals trained in a variety of software applications. This certificate is for students who want to use the computer as a tool of productivity. The specialized computer courses will emphasize the Office software suite for students looking to acquire current skills in preparation for entry into or advancement in today's workplace. Students may wish to enhance these opportunities by pursuing certifications available from various software vendors such as the Microsoft User Specialist.

### REQUIREMENTS

CSA* 105	Introduction to Software Applications	3
+ CSA* 135	Spreadsheet Applications	3
+ CSA* 145	Database Management	3
+ CST* 150	Web Design and Development I	3
+ CSA* 125	Exploring Word Processing and Desktop Publishing	4

MINIMUM TOTAL: 16

## Registered Medical Assistant (Certificate)

The Registered Medical Assistant certificate is designed to prepare students for entry-level positions in private medical offices, hospitals, home health care agencies, nursing homes, clinics and diagnostic centers or take it to the next level and become certified.

Successful completion of the program satisfies the eligibility requirements needed to sit for a voluntary national certification exam sponsored by the American Medical Technologists, a nationally recognized certification agency for allied health professionals.

### REQUIREMENTS

MED* 111	Medical Office Procedures	3
+ MED* 112	Medical Insurance and Coding	3
+ MED* 116	Anatomy & Physiology for Medical Asst.	4
MED* 125	Medical Terminology	3
+ MED* 133	Clinical Medical Assisting	4
+ MED* 142	Clinical Lab. Procedures and Practices I	4
MED* 170	Law and Ethics for Health Careers	3
MED* 240	Psychology and Communication in Healthcare for Medical Assisting	3
+ MED* 242	Clinical Lab. Procedures and Practices II	4
+ MED* 250	Principles of Pharmacology	3
+ MED* 280	Medical Assistant Externship	4

MINIMUM TOTAL: 38

## Team Leader Management Skills in Manufacturing (Certificate)

The courses in this certificate provide a solid background for either immediate job needs in a manufacturing area or eventual further studies. All courses will also apply to a Business Administration degree at Asnuntuck Community College.

### REQUIREMENTS

BMG* 202	Principles of Management	3	
+ ENG* 202	Technical Writing		<b>OR</b>
ENG*	Any English Course 100 or above	3	
ECN* 101	Principles of Macroeconomics		<b>OR</b>
ECN* 102	Principles of Microeconomics	3	
+ QUA* 114	Principles of Quality Control	3	
+ MFG* 225	Industrial Safety	3	
Choose one of the following courses:			
+ HUM* 185	Problem Solving & Decision Making		
HUM* 141	The Future & Organizations		
HUM* 145	Leadership in Society	3	
			MINIMUM TOTAL: 18

## Web Designer (Certificate)

This certificate program is designed for the individual who wants to design and maintain Web pages for a variety of settings including personal, professional and business use. This certificate will provide training which will enable students to improve job skills and gain immediate employment.

### REQUIREMENTS

CSA* 105	Introduction to Software Applications	OR	
CSC* 106	Structured Programming		3
+ CST* 150	Web Design & Development I		3
+ CST* 250	Web Design & Development II		3
+ CST* 258	Fundamentals of Internet Programming		4
DGA* 111	Introduction to Computer Graphics		3
+ BMK* 201	Principles of Marketing		3
			MINIMUM TOTAL: 19

## Team Leader Technical Skills in Manufacturing (Certificate)

The courses in this certificate provide a solid background for either immediate job needs in a manufacturing area or eventual further studies. All courses will also apply to a Business Administration degree at Asnuntuck Community College.

### REQUIREMENTS

+ ENG* 202	Technical Writing	3	
+ MFG* 105	Manufacturing Math II OR	3-4	
MAT* XXX	Any Math Course above 100		
+ MFG* 124	Blueprint Reading I	2	
+ MFG* 125	Blueprint Reading II	3	
+ MFG* 239	Geometric Dimension & Tolerancing	3	
With advisor approval, one course from among the 3 following: BBG*, BES*, BMG*, BMK*, BFN*, CSA*, CSC* or CST*			
			MINIMUM TOTAL: 17