

MANUFACTURING TECHNOLOGY

Program Description

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

Campus NOR

Award Type AS, S, CP

Career Opportunities

- Avionics Technician
- Computerized Fabrication Specialist
- Electrical or Electronics Drafter
- Industrial Engineer
- Mechanical Drafter
- Operations Engineer
- Process Engineer
- Production Engineer
- Quality Engineer

Wages

	Annual	Hourly
Industrial Engineering Technician	\$55,699	\$29.01
Industrial Engineer	\$81,530	\$42.46
Mechanical Drafter	\$47,192	\$24.58
Electrical Drafter	\$51,167	\$26.65
Avionics Technician	\$52,667	\$27.43

Contact Information Norco - (951) 372-7108



2008-2009

AUTOMATED SYSTEMS

AS732/CE732

Certificate Program

Required Courses (32 units)		Units
ELE-26	Microprocessors and Microcontrollers	4
MAC/MAN-56	CNC Machine Setup and Operation	4
MAC/ENE-61	Computer Aided Design and Computer Aided Manufacturing	2
MAN-30	Material Handling	3
MAN-60	Hydraulics and Pneumatic Systems	3
MAN-62	Computer Integrated Manufacturing	3
MAN-64	Programmable Logic Controllers	2
MAN-75A	Robotic Systems	4
MAN-76	Automated Systems Lab	1
Electives	(Choose from list below)	6

Electives

ELE-38	Computer Systems Troubleshooting	4
ELE/ENE-27	Technical Communication	3
ENE/MAN-46	Manufacturing Processes I	3
ENE-60	Math for Engineering Technology	3
ENE-200	Work Experience	1-4
MAN-31	Production Planning, Operating & Control	3
MAN-47A	Statistical Process Control	3
MAN-51	Machine Processes	3
MAN-58	Quality Assurance	3
MAN-75B	Advanced Robotic Systems	4
MAN-76	Automated Systems Lab	1

Associate in Science Degree

The Associate in Science degree in Manufacturing Technology, Automated Systems will be awarded upon completion of the requirements for the certificate, plus completion of the graduation requirements as described in the catalog, as well as electives totaling 60 units of college work as required for the associate degree.

AUTOMATED SYSTEMS TECHNICIAN

AS737/CE737

Certificate Program

Required Courses (26 Units)		Units
ELE-10	Survey of Electronics	4
ELE-26	Microprocessors and Microcontrollers	4
ELE/ENE-27	Technical Communications	3
ENE-33	Machine Design	3
ENE-51	Blueprint Reading	2
ENE-60	Math for Engineering Technology	3
MAC/MAN-55	Occupational Safety and Health Administration (OSHA) Standards for General Industry	2
MAN-60	Hydraulics and Pneumatic Systems	3
MAN-64	Programmable Logic Controllers	2

Associate in Science Degree

The Associate in Science degree in Manufacturing Technology, Automated Systems Technician will be awarded upon completion of the requirements for the certificate, plus completion of the graduation requirements as described in the catalog, as well as electives totaling 60 units of college work as required for the associate degree.

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MANUFACTURING TECHNOLOGY

MANUFACTURING MANAGEMENT AS607/CE607 Certificate Program

Required Courses (18.5 units)		Units
MAN-81	Principles of Inventory Control	1.5
MAN-82	Fundamentals of Manufacturing Control	2
MAN-83	Fundamentals of Operations Management	2
MAN-84	Fundamentals of Materials and Operations Planning	2
Electives	(Choose from list below)	11

Electives		Units
MAN-31	Production Planning, Operating and Control	3
MAN-47A	Statistical Process Control	3
MAN-47B	Advanced Statistical Process Control	3
MAN-48	Manufacturing Quality Management	3
MAN-49	Problem Solving in Manufacturing	3
MAN-62	Computer Integrated Manufacturing	3
MAN/ENE-70	Manufacturing Methods	3
MAN/ENE-71	Supplier Improvement	3
MAN-92A	Manufacturing Problem Solving	2
MAN-92B	Manufacturing Teamwork and Communication	2

Associate in Science Degree

The Associate in Science Degree in Manufacturing Management will be awarded upon completion of the requirements for the certificate, plus completion of the graduation requirements as described in the catalog, as well as electives totaling 60 units of college work as required for the associate degree.

The following Certificates may lead to employment competency, but do not lead to an associate in science degree:

COMPUTER-AIDED PRODUCTION TECHNOLOGY CE799 Certificate Program

Required Courses (14-15 units)		Units
ENE-51	Blueprint Reading	2
ENE-60	Math for Engineering Technology	3
MAN/MAC-55	Occupational Safety & Health Administration (OSHA) Standards for General Industry	2
MAN/MAC-56	CNC Machine Set-up and Operation	4
Electives	(Choose from list below)	3-4

Electives (3-4 units)		Units
MAN/ENE-46	Manufacturing Processes I	3
MAN-52	Computer-Aided Manufacturing-Mastercam	4
MAN/MAC-57	CNC Program Writing	3
MAN-59	Computer-Aided Manufacturing-GibbsCAM	4

MATERIALS AND OPERATIONS MANAGEMENT CE800 Certificate Program

Required Courses (7.5 units)		Units
MAN-81	Principles of Inventory Control	1.5
MAN-82	Fundamentals of Manufacturing Control	2
MAN-83	Fundamentals of Operations Management	2
MAN-84	Fundamentals of Materials and Operations Planning	2

