



Effective 2009/2010

Career Cluster ►



Career Pathway ►

Manufacturing Production
Process Development

**AUTOMATED MANUFACTURING
SYSTEMS TECHNICIAN**

(10-628-3)

Associate of Applied Science Degree

Offered at: Elkhorn Campus & Lakeview Center

^Δ Suggested Sequence	Course Number	Course Title	Requisites	Credits	Hrs/Wk Lec - Lab
Semester 1	605-113	*DC/AC I		3	2-2
	612-102	*Pneumatics/Hydraulics, Introduction		3	2-2
	628-109	*Mechanical Skills for Technicians		3	1-4
	801-136	English Composition 1	Prereq: 831-103 (See Note 1)	3	3-0
	804-113	College Technical Math 1A	Prereq: 854-769 (See Note 1)	3	3-0
	804-114	College Technical Math 1B	Coreq: 804-113	2	2-0
Semester 2	620-111	*Intro to Solid State Circuits	Prereq: 605-113	4	2-4
	623-189	*Metrology		3	0-6
	628-100	*Automated Manufacturing Concepts/Intro		2	0-4
	628-110	+*CNC/CAM Programming		3	1-4
	806-154	General Physics 1	Prereq: 804-113	4	3-2
Semester 3	620-110	*Robotics / Mechanics I	Prereq: 620-111	3	2-2
	620-140	*Programmable Controllers	Prereq: 605-113	2	1-2
	890-103	Employability Skills		2	1-2
	801-197	Technical Reporting	Prereq: 801-136	3	3-0
	809-196	Sociology, Introduction to	Prereq: 838-105 (See Note 1)	3	3-0
	809-198	Psychology, Introduction to	Prereq: 838-105 (See Note 1)	3	3-0
Semester 4	606-126	*AutoCAD, Introduction		2	0-4
	620-120	*Feedback & Control Systems	Prereq: Instructor Consent	2	1-2
	620-145	*Programmable Logic Controllers – Advanced	Prereq: 620-140	3	1-4
	628-111	*Computer Assisted Programming/Robot and FMS		3	1-4
	628-112	*Computer Aided Manufacturing, Advanced		3	1-4
	625-121	*MSSC Certification Preparation and Assessment		2	2-0
Electives	Take 6 elective credits. Any associate degree level course may be taken as an elective.			6	
	Suggested Electives:				
	606-127 CAD Intermediate (2 Cr)	612-115 Hydraulics / Advanced (3 Cr)			
	606-128 CAD Solids (2 Cr)				
628-108 Field Experience (2 Cr)					
Program Total Required				70	

^Δ Courses may be taken out of suggested sequence as long as requisites have been met.



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PROGRAM DESCRIPTION

Automated Manufacturing Systems Technician is designed to train technicians who can work in a factory which has a high level of automation. Emphasis is placed on automated systems, including production systems, material handling systems, and supervisory control systems. Training objectives will focus on system implementation, application, operation, and installation. The education is broad-based and multi-disciplinary and includes an understanding of electrical, electronic, electromechanical, and mechanical components, plus micro-processors, computers, inventory, and quality control.

PROGRAM LEARNING OUTCOMES

Graduates of the Automated Manufacturing Systems Technician Associate Degree Program should be able to:

1. Demonstrate knowledge of electricity, electronics, hydraulics and pneumatics.
2. Demonstrate a knowledge of sensor utilization for measuring flow, pressure, speed, voltage, current, torque, force, temperature, etc.
3. Demonstrate an understanding of PLC programming and program design.
4. Demonstrate proper use and operation of hand tools.
5. Analyze design solutions for electromechanical machines and devices as a team.

CORE ABILITIES

Gateway believes students need both technical knowledge and skills and core abilities in order to succeed in a career and in life. The following nine core abilities are the general attitudes and skills promoted and assessed by all Gateway programs. All Gateway graduates should be able to:

1. Act responsibly
2. Communicate clearly and effectively
3. Demonstrate essential computer skills
4. Demonstrate essential mathematical skills
5. Develop job seeking skills
6. Respect themselves and others as a member of a diverse community
7. Think critically and creatively
8. Work cooperatively
9. Value learning

ADMISSION REQUIREMENTS

1. Students must submit an application & \$30 fee.
2. Students must complete reading, writing, pre-algebra, and algebra placement testing.

GRADUATION REQUIREMENTS

1. 70 Credits with an average of 2.0 or above.
2. *Average of 2.0 ("C") or above for these major courses.
3. +The Plastics Option courses (619-101, 619-110, 619-120, and 619-155) listed on the other side of this sheet may be taken to replace these four courses. See your counselor for details.

For a complete list of Graduation Requirements check the Student Handbook.

NOTES

1. A satisfactory placement test score (or successful remediation) is required prior to enrollment. See a counselor for details.
2. Any course may be taken prior to entry in the program, assuming prerequisites and corequisites have been satisfied (or waived with department approval).

OTHER INFORMATION

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for a period of two years or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult the Master Class Schedule for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY/ACCESS EDUCATOR / EMPLOYER
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You may call Student Services at (262) 767-5300 (Burlington), (262) 741-8300 (Elkhorn), (262) 564-2300 (Kenosha), or (262) 619-6300 (Racine) for additional information. For a complete list of course descriptions (and possible online courses) for this program, please consult Web Advisor on our web page at www.gtc.edu.

My counselor is _____ . My counselor's contact information is _____ .