



Effective 2015/2016

Career Cluster ►



Career Pathway ►

Engineering and Technology

MECHANICAL DESIGN TECHNOLOGY
 (10-606-1A) – Mechanical Engineering Tech
 Associate of Applied Science Degree
 Most Courses Offered at Elkhorn Campus
 and iMET Center

△ Suggested Sequence	✓	Course Number	Course Title	Requisites	Credits	Hrs/Wk Lec - Lab
Semester 1		606-149 *	Introduction to MET		2	1-2
		606-103 *	Material Properties		2	2-0
		606-128 *	CAD – Solidworks		2	1-2
		606-141 *	AutoCAD – Mech Design Tech		3	2-2
		801-136	English Composition 1	Prereq: 831-103 (See Note 1)	3	3-0
		804-115	College Technical Math 1	Prereq: 834-110 (See Note 1)	5	5-0
Semester 2		606-129 *	CAD Solids / Advanced	Prereq: 606-128	2	1-2
		606-151 *	Statics	Prereq: 804-115	3	2-2
		606-152 *	Engineering Graphics w/ CAD1	Prereq: 606-149	2	1-2
		804-197	College Algebra & Trig w Apps	Prereq: 804-114 OR 804-115	5	5-0
		806-154	General Physics 1	Prereq: 804-115	4	3-2
Semester 3		606-118 *	Mechanisms	Prereq: 606-151; 606-152	2	1-2
		606-119 *	Motor Controls		3	2-2
		606-131 *	Strength of Materials	Prereq: 606-151; 806-154	3	2-2
		606-153 *	Engineering Graphics w/ CAD 2	Prereq: 606-152	2	1-2
		606-159 *	Manufacturing Processes	Prereq: 606-103	2	2-0
		801-198	Speech	Prereq: 838-105 (See Note 1)	3	3-0
Semester 4		606-116 *	Machine Design / Elements of	Prereq: 606-152	3	3-0
		606-138 *	Design Problems	Prereq: Instructor Consent	2	0-4
		606-154 *	Engineering Graphics w/ CAD 3	Prereq: 606-153	2	1-2
		606-160 *	Fluid Power and Design		3	2-2
		809-196	Sociology, Introduction to	Prereq: 838-105 (See Note 1 & 5)	3	3-0
		809-198	Psychology, Introduction to	Prereq: 838-105 (See Note 1 & 5)	3	3-0
Electives		Take 6 elective credits. Any associate degree level course may be taken as an elective.			6	
		Suggested Electives:				
		606-130 Introduction – SolidEdge (2 Cr)	606-186 Directed Study/Mech. Design (1 Cr)			
		606-137 Manufacturing Process Appl (2 Cr)	606-199 Internship, Mechanical Technician (1 Cr)			
		606-139 Introduction – AutoCAD Inventor (2 Cr)				
	606-142 Creo – Pro/Engineering (2 Cr)					

Minimum Program Total Credits Required

70

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



Effective 2015/2016

Career Cluster ►



Career Pathway ►

Engineering and Technology

MECHANICAL DESIGN TECHNOLOGY
(10-606-1A) – Mechanical Engineering Tech
Associate of Applied Science Degree
Most Courses Offered at Elkhorn Campus
and iMET Center

PROGRAM DESCRIPTION

In *Mechanical Design Technology*, comprehensive instruction is given and practical experience gained in mechanical design, drafting, and computer aided design (CAD). Extensive experience is gained with dimensioning practices, allowances, sections, drafting standards, auxiliary views, exploded views, fabrication drawings detail and assembly drawings, gears and cams, structural shapes, and intersections. Other topics covered through classroom study include practical geometry, basic fabrication methods, engineering geometry, linear velocity, engineering materials and properties, kinematics of machinery, and manufacturing processes.

PROGRAM LEARNING OUTCOMES

Graduates of the Mechanical Design Technology Associate Degree Program should be able to:

1. Prepare detail and assembly drawings for documentation of mechanical components and products.
2. Create CAD geometry, parts, and assemblies.
3. Design mechanical components and products.
4. Analyze mechanical engineering problems.
5. Select purchase parts.

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

ADMISSION REQUIREMENTS

1. Students must submit an application and \$30 fee.
2. Students must complete reading, writing, math, and computer skills placement assessments.
3. Students must submit official high school, GED, or HSED transcript.

GRADUATION REQUIREMENTS

1. Minimum 70 Credits with an average of 2.0 or above.
2. *Average of 2.0 ("C") or above for these major courses.

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 an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days.
3. A drafting kit is required for this program; the cost is approximately \$20.
4. Any course may be taken prior to entry in the program, assuming prerequisites and corequisites have been satisfied (or waived with department approval).
5. Transfer credits in Social Science may substitute for this course. See an advisor for details.

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 Web Advisor 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 EMPLOYER AND EDUCATOR
EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**

To schedule an appointment with an advisor, please call 1-800-247-7122.

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 advisor is _____ My advisor's contact information is _____