Lake Superior College
A member of Minnesota State

Engineering Technology AS Degree - 60 credits

Program Area: Integrated Manufacturing (Fall 2025)

*****REMEMBER TO REGISTER EARLY*****

Program Description

This AS program prepares students for transfer to earn a Bachelor of Science in Engineering Technology.

Students learn through hands-on training, to become specialists dedicated to the development, design, and implementation of engineering and technology related to positions in construction, manufacturing, product design, testing, or technical services including sales.

Program Outcomes

- Demonstrate safe use of machine tools used in manufacturing such as saws, drill press, engine lathes, milling machines and welding machines
- Demonstrate understanding of mechanical blueprints including orthographic drawings, symbols, and tolerancing
- Demonstrate teamwork in design and manufacture of a working project
- Generate and simulate CAD/CAM toolpaths for various CNC machines
- Utilize computer design programs (CAD) to create three dimensional models, assemblies, animation, and drawings
- Demonstrate understanding various number systems used in digital logic circuits.
- Demonstrate understanding and programming of microcontrollers
- Demonstrate understanding of the basic operation and programming of an industrial Programmable Logic Controller
- Develop an understanding of math and physics concepts related to Engineering Technology

Required Courses

Number	Name	Credits	Term
CADE 1407	AutoCAD	3	
CADE 1468	SolidWorks I	3	
ELTN 1412	Digital Electronics	2	
ELTN 2442	Automation Controllers	3	
INMG 1111	Introduction to Project Management	3	
INMG 1400	Introduction to Manufacturing Technology	4	
INMG 1410	Mechanical Print Reading	3	
INMG 1420	Design Application Concepts I	3	
INMG 1450	Prototyping Processes	3	
MTCC 2504	CAD-CAM	3	
General Education	A total of 30 MnTC credits must be selected from at least 6 different Goal Areas		
ENGL 1106	College Compostion 1	3	
MATH 1150 MATH 1100 MATH 1130	Pre-Calculus (4 cr) or College Algebra (4 cr) and Trigonometry (3 cr)	4-7	
PHYS 1201	Introduction to Physics I	5	
PHYS 1202	Introduction to Physics II	5	
	Additional MnTC Goal Electives	10-13	
Total Credits		**60**	

Program Articulation

This program has a transfer agreement in place that allows students to transfer most (if not all) of their credits earned, should the graduate decide to pursue an Engineering Technology bachelor's degree from Bemidji State University.

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Pre-program Requirements

Successful entry into this program requires a specific level of skill in the areas of English, mathematics, and reading. Program entry will depend, in part, on meeting the prerequisites listed below:

English/Reading:

- Eligible for ENGL 1106 - College Composition I, or
- Completion of ENGL/READ 0950/0955 (or equivalent or higher). ENGL/READ 0950/0955 may be taken concurrently with Semester I coursework.

Mathematics:

- Completion of MATH 0970 - Intermediate Algebra (or equivalent course or higher). MATH 0970 can be taken concurrently with Semester I coursework.

There are other ways to qualify. Visit Course Placement (lsc.edu/course-placement) to find out more.

For interpretation of test results and selection of appropriate coursework;
or general information about the program, admissions, financial aid, and getting started at LSC,
contact the professional advising team (advising@lsc.edu) at 218-733-7601

For more information about the Engineering Technology AS Degree including
course descriptions, course prerequisites, and potential career opportunities,
see the program website (https://www.lsc.edu/degrees/engineering-technology-as/)

or

Contact Faculty Advisor, Nathan Zobel (nathan.zobel@lsc.edu) at 218-733-6827

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LSC Major ID: 5425

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All courses in diploma and/or certificate programs are acceptable for credit toward Lake Superior College degree programs as indicated on individual program planners. This is not a contract; Lake Superior College reserves the right to change the planner as necessary. This document is available in alternative formats upon request, by contacting Student Accessibility Services or (218) 733-7650 or MRS/TTY (800) 627-3529.