



Welding Diploma - 65 credits

Program Area: Integrated Manufacturing Welding (Fall 2025)

REMEMBER TO REGISTER EARLY

Program Description

The Welding Diploma is a two-year program designed to provide an advanced career pathway in manufacturing, specific to the field of Welding. This 65-credit diploma is designed to prepare the student for employment as an intermediate to advanced welder or fabricator. This program allows students to gain the information and to develop skills used in the welding industry. This program covers GMAW, GTAW, FCAW, SMAW. Instruction includes classroom lectures and demonstrations, as well as hands-on projects in a lab setting. Students will have the opportunity to achieve industry level credentials.

Program Outcomes

- Demonstrate an understanding of welding equipment and proper safety
- Demonstrate an understanding of blueprints and blueprint reading
- Demonstrate an understanding of proper welding processes
- Demonstrate an understanding of cutting processes
- Demonstrate an understanding of different weld transfers
- Select metals based upon weldability
- Demonstrate an understanding of TIG welding and setup
- Demonstrate an understanding of MIG welding and setup
- Understand MIG wire selection
- Demonstrate an understanding of proper layout
- Understand weld symbols
- Prepare student for welding certification

Required Courses

Number	Name	Credits	Term
CADE 1468*	Solidworks I	3	
INMG 1400	Intro to Manufacturing Technology	4	
INMG 1410*	Mechanical Print Reading	3	
INMG 1420	Design Application Concepts I	3	
WLDG 1560	Gas Metal Arc Welding I	3	
INMG 1422*	Design Application Concepts II	3	
WLDG 1500*	Blueprint Reading for Welders	3	
WLDG 1520	Gas Tungsten Arc Welding I	3	
WLDG 1540	Shielded Metal Arc Welding I	3	
WLDG 1570*	Flux Cored Arc Welding I	3	
WLDG 1522*	Gas Tungsten Arc Welding II	3	
WLDG 1542*	Shielded Metal Arc Welding II	3	
WLDG 1562*	Gas Metal Arc Welding II	3	
WLDG 2402*	Introduction to Metallurgy	2	
WLDG 1572*	Flux Cored Arc Welding II	3	
WLDG 1550*	CNC Plasma and Cutting Processes	3	
COMM 1601	Interviewing Procedure and Practice	1	
WLDG 1524*	Gas Tungsten Arc Welding III	3	
WLDG 1544*	Shielded Metal Arc Welding III	3	
WLDG 1564*	Gas Metal Arc Welding III	3	
WLDG 1580*	Welding Fabrication Methods	4	
WLDG 1590*	Introduction to Robotic Training	2	
WLDG 2502*	Weld Qualification	1	

Total Credits

65

*Requires a prerequisite or a concurrent course



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Pre-program Requirements

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

English/Reading:

- Eligible for ENGL/READ 0955 – Read/Write College Prep: Advanced, or
- Completion of ENGL/READ 0950 or 0955 (or equivalent course or higher). ENGL/READ 0950 may be taken concurrently with Semester I coursework.

Mathematics:

- A score of 250 or higher on the Arithmetic portion of the Accuplacer.

There are other ways to qualify. Visit [Course Placement](https://lsc.edu/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 team at [professional advising team](mailto:advising@lsc.edu) (advising@lsc.edu) or 218-733-7601

For more information about the Welding Diploma including course descriptions, course prerequisites, the program report, and potential career opportunities, see [program website](https://www.lsc.edu/degrees/welding-diploma/) (https://www.lsc.edu/degrees/welding-diploma/)

or

Contact Faculty Advisor [Matthew Farchmin](mailto:matthew.farchmin@lsc.edu) (matthew.farchmin@lsc.edu) at 218-733-6907



MINNESOTA STATE

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