

Welding

Welding Degrees and Certificates

- 1
- Welding and Fabrication
- Welding and Fabrication

Welding Classes

INDT 135: Metal Fabrication I

Designed to introduce commonly used metal fabrication techniques. Including but not limited to: measuring instrumentation, metal preparation, welding, machines (drills, saws, grinders, mills and lathes) and metal bending devices. Emphasis placed on the safe use of tooling, pre-planning and fabrication of structurally sound projects.

Credits 5

Weekly Contact Hours 7

Meets Degree Requirements For

Restricted Elective

Prerequisites

WELD 128 or WELD 131 or WELD 132 or concurrent enrollment in any of the three

INDT 136: Metal Fabrication II

Introduces the student to an intermediate level of fabrication techniques such as measurement instrumentation, metal preparation, welding, machines (drills, saws, grinders, mills and lathes), and metal benders. Emphasis is placed on the safe use of tooling, pre-planning, and fabrication of structurally sound projects.

Credits 5

Weekly Contact Hours 7

Meets Degree Requirements For

Restricted Elective

Prerequisites

[INDT 135](#) or industry experience with Instructor Permission

INDT 137: Metal Fabrication III

Designed to introduce commonly used sheet metal fabrication techniques, including but not limited to: measuring, shearing, bending, lay-out, metal preparation, welding, machines (drills, saws, grinders, brakes, shears) and hand-held specialized sheet-metal tooling. Emphasis placed on the safe use of tooling, pre-planning, proper fitment and the fabrication of structurally sound projects.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For

Restricted Elective

Prerequisites

WELD 128 or WELD 131 or WELD 132 or appropriate industry experience (Instructor Permission)

WELD 128: Basic Welding

Theory, application and practice of arc and oxyacetylene welding and cutting.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For
Restricted Elective

WELD 131: Gas Welding

Fundamentals and experience in the operation of oxyacetylene welders and cutters in flat, horizontal, vertical and overhead positions, and an introduction to aluminum and stainless steel welding and brazing using TIG welding machines.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For
Restricted Elective

WELD 132: Arc Welding

Fundamentals and experience in operation of AC and DC welders in flat, horizontal, vertical and overhead positions using a variety of welding electrodes, including low-hydrogen rods. Introduction to MIG (Metallic Inert Gas) or GMAW (Gas Metal Arc Welding) included.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For
Restricted Elective

WELD 134: Intermediate GTA Welding (TIG)

Introduces the experienced welder or student to GTAW techniques and machine set-up. The student will learn the proper way to adjust a machine for joining many types of metals ferrous and non-ferrous. Skill level will be improved and experience will be gained through several repetitive exercises.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For
Restricted Elective

Prerequisites

[WELD 128](#) or [WELD 131](#) or [WELD 132](#) or Professional Welding Experience (Instructor Permission)

WELD 220: Welding Certification Prep Course

Prepares experienced welders for welding examination and certification. Involves out of position welding with electric arc 6010 and 7018 electrodes, 'flux core' welding wire, and GMAW (MIG) Welders (required during welding certification).

Credits 2

Weekly Contact Hours 4

Meets Degree Requirements For
Restricted Elective

Prerequisites

[WELD 128](#) or Industry Experience (Instructor Permission)

WELD 223: Pipe Welding

Techniques for welding pipe and preparing for WABO certification. SMAW (Stick) and GMAC (MIG) methods are used. Students will weld in all positions, prep and fit at various angles.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For

Restricted Elective

Prerequisites

[WELD 128](#) or [WELD 131](#) or [WELD 132](#) or appropriate Industry Experience (Instructor Permission)

WELD 225: Welding Blueprint Reading

Provides basic knowledge and skill in reading typical blueprints used by welding professionals. Special attention devoted to the symbols used in this industry. Course includes drawing and drawing interpretation.

Credits 2

Weekly Contact Hours 2

Meets Degree Requirements For

Restricted Elective

WELD 227: Welding Exotic Metals

Course in welding styles such as GTAW, FCAW and GMAW used in joining exotic metals or metal alloys which may include but is not limited to titanium, tungsten, inconel, aluminum and stainless steel.

Credits 3

Weekly Contact Hours 5

Meets Degree Requirements For

Restricted Elective

Prerequisites

[WELD 128](#) or [WELD 131](#) or [WELD 132](#)

WELD 230: Welding Inspection and Code Interpretation

Overview of information needed to identify key welding inspection criteria, codes and procedures. Course will focus on the contents of the WABO Standard 27-13 booklet and how to quickly locate important information.

Credits 2

Weekly Contact Hours 2

Meets Degree Requirements For

Restricted Elective

WELD 231: Welding Inspector D1.1 Code Book

Prepares students for the American Welding Society D1.1 Certified Welding Inspector exam, known as Exam Part C. Course will focus on the contents of the book and how to quickly locate important information.

Credits 5

Weekly Contact Hours 5

Meets Degree Requirements For

Restricted Elective