

---

## Student Success Center

### LEAR 101 (0828) College Success Skills

Prerequisite: None

Credit Hours: 1

An introduction to the College, its personnel, its support systems, and its extracurricular activity opportunities for new students.

### LEAR 102 Research Skills

Prerequisite: None

Credit Hours: 1

This course is an introductory course to print and electronic research skills. The students will learn to access, evaluate, and use various research tools effectively.

### LEAR 103 (1601) Information Literacy

Prerequisite: None

Credit Hours: 2

An introduction to information and its effect on society. The students will learn to access information in various formats, evaluate information for various uses, and effectively and ethically use information for research and in everyday situations.

## Welding Technology

### WELD 120 Oxy Acetylene and Safety

None Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled

Credit Hours: 3

Skills to be obtained include, but are not limited to, oxyacetylene welding, cutting, and repair. Safety will be emphasized along with interpreting safety rules for using Oxy-Acetylene equipment. This class will include extensive studies in the technology of systems used in today's field of welding-manufacturing, construction, power/energy, transportation, fabrication, and piping processes. The format is lecture, demonstration, student application, and evaluation.

### WELD 130 Gas Tungsten Arc Welding

Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled

Credit Hours: 3

Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW); demonstrate the safe and correct set up of the GTAW workstation; relate GTAW electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the flat position; build pads of weld beads with selected electrodes and filler material in the horizontal position; perform basic GTAW welds on selected weld joints; and perform visual inspection of GTAW welds.

### WELD 140 Shielded Metal Arc Welding

Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled

Credit Hours: 3

Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds

**WELD 160 Gas Metal Arc Welding**

Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled

Credit Hours: 3

Through classroom and/or shop/lab learning and assessment activities, students in this course will: explain gas metal arc welding process (GMAW); demonstrate the safe and correct set up of the GMAW workstation.; correlate GMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the flat position; build pads of weld beads with selected electrodes in the horizontal position; produce basic GMAW welds on selected weld joints; and conduct visual inspection of GMAW welds.

**WELD 180 Pipe Layout and Blueprint Reading**

Prerequisite: INDU 155 OSHA 10 General Industry or concurrently enrolled

Credit Hours: 3

This course is a study of industrial production and fabrication of piping formations and processes. Emphasis is placed on terminology, symbols, and industry standard welding processes. Students will demonstrate the ability to interpret plans and drawings used in industry and the application of fabrication and layout skills.

**WELD 210 Advanced Gas Tungsten Arc Welding**

Prerequisite: Advisor Approval: Level I Certification or instructor permission

Credit Hours: 4

Through classroom and/or lab/shop learning and assessment activities, students in this course will: explain the gas tungsten arc welding process (GTAW or TIG); demonstrate the safe and correct set up of the TIG workstation; relate TIG electrode and filler metal classifications with base metals and joint criteria; build proper electrode and filler metal selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes and filler material in the vertical position; build pads of weld beads with selected electrodes and filler material in the overhead position; perform basic TIG welds on selected weld joints; and perform visual inspection of TIG welds.

**WELD 220 Advanced Gas Metal Arc Welding**

Prerequisite: Advisor Approval: Level I Certification or instructor permission

Credit Hours: 4

Through classroom and/or shop/lab learning assessment activities, students in this course will: explain gas metal arc welding process (GMAW or MIG); demonstrate the safe and correct set up of the MIG workstation.; correlate MIG electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thicknesses; build pads of weld beads with selected electrodes in the vertical position; build pads of weld beads with selected electrodes in the overhead position; produce basic MIG welds on selected weld joints; and conduct visual inspection of MIG welds.

**WELD 240 Advanced Shielded and Metal Arc Welding**

Prerequisite: Advisor Approval: Level I Certification or instructor permission

Credit Hours: 4

Through classroom and/or lab/shop learning and assessment activities, students in this course will: describe the Shielded Metal Arc Welding process (SMAW); demonstrate the safe and correct set up of the SMAW workstation; associate SMAW electrode classifications with base metals and joint criteria; demonstrate proper electrode selection and use based on metal types and thickness; build pads of weld beads with selected electrodes in the vertical position; build pads of weld beads with selected electrodes in the overhead position; perform basic SMAW welds on selected weld joints; and perform visual inspection of welds.

**WELD 260 Specialized Welding**

Prerequisite: Advisor Approval: WELD 210 Advanced Gas Tungsten Arc Welding, WELD 220 Advanced Gas Metal Arc Welding, and WELD 240 Advanced Shielded and Metal Arc Welding, or instructor permission

Credit Hours: 4

Through classroom and/or lab/shop learning assessment activities, students in this course will: demonstrate skill learned in the previous beginning and advanced classes by demonstrating knowledge of GTAW, BMAW, SMAW, oxy-acetylene, and weld symbols. Students will be able to take a blueprint and create a finished project using any or all welding processes and positions. The project will either be assigned by the instructor or proposed and permitted by the instructor.

\*Refer to the Placement Testing Procedure 3.22, page 22 \*\*Refer to Course Transfer, page 17