WELDING (WELD)

Introduction To Welding
WELD 102  6 Credits/Units
4 hours of lecture / 4 hours of lab
Prerequisite: Concurrent enrollment in, or completion of HLTH 120 (grade of "C" or higher) and CAP 42 (grade of "C" or higher), or placement into Math level 10.
An introduction to the welding industry and the various career paths available within the industry. Practical application in general shop safety and department-required training on metal working equipment. [GE]

Welding Blueprint Reading
WELD 110  5 Credits/Units
5 hours of lecture
Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

Gas Metal Arc Welding
WELD 140  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 141 or consent of Instructional Unit.
Prerequisite: WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141
Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. [GE]

Gas Metal Arc Fabrication
WELD 141  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 140 or consent of Instructional Unit.
Prerequisite: WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141
Application of concepts of gas metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Flux Core Arc Welding
WELD 142  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 143 or consent of Instructional Unit.
Prerequisite: WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143
Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

Flux Core Arc Fabrication
WELD 143  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 142 or consent of Instructional Unit.
Prerequisite: WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143
Application of concepts of flux core arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Shielded Metal Arc Welding
WELD 144  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 145 or consent of Instructional Unit.
Prerequisite: WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145
Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. [GE]

Shielded Metal Arc Fabrication
WELD 145  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 144 or consent of Instructional Unit.
Prerequisite: WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145
Application of concepts of shielded metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Welding Certification
WELD 156  2 Credits/Units
4 hours of lab
Prerequisite: WELD 102 (grade of "C" or higher) and consent of Instructional Unit.
Students will review the requirements to earn program required AWS welding certifications. [GE] [PNP]

Cooperative Work Experience
WELD 199  1-5 Credits/Units
15 hours of clinical Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

Gas Tungsten Arc Welding
WELD 240  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 240 or consent of Instructional Unit.
Prerequisite: WELD 140 and WELD 141 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241
Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. [GE]

Gas Metal Arc Fabrication
WELD 241  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 240 or consent of Instructional Unit.
Prerequisite: WELD 144 and WELD 145 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241
Application of concepts of gas tungsten arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Advanced Wire Feed Welding
WELD 242  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 243 or consent of Instructional Unit.
Prerequisite: WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243
Advanced instructional theory and application of arc cutting processes/oxyfuel cutting, sub-arc welding and wire feed welding processes on ferrous and nonferrous metals. [GE]

Advanced Wire Feed Fabrication
WELD 243  6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 242 or consent of Instructional Unit.
Prerequisite: WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243
Application of concepts of wire feed welding processes on ferrous and nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]
Advanced Gas Tungsten Arc Welding
WELD 244 6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 245 or consent of Instructional Unit.
Prerequisite: WELD 242 and 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 & 245
Advanced instructional theory and application of arc cutting processes/oxyfuel cutting and gas tungsten arc welding processes on ferrous and nonferrous metals. [GE]

Advanced Gas Tungsten Arc Fabrication
WELD 245 6 Credits/Units
3 hours of lecture / 6 hours of lab
Concurrent enrollment in WELD 244 or consent of Instructional Unit.
Prerequisite: WELD 242 and 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 & 245
Application of concepts of advanced gas tungsten arc welding processes on nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

Selected Topics
WELD 280 1-6 Credits/Units
6 hours of lecture
Selected topics in Welding as listed in the term class schedule.
Repeatable for credit. [GE]

Special Projects
WELD 290 1-5 Credits/Units
5 hours of lecture
Projects assigned according to needs and abilities of the student. Hours arranged with instructor. Maximum of 15 credits allowed toward a certificate or degree. [GE]