Course Descriptions for all WELDING TECHNOLOGY courses
(in order by semester)

EMEC 118 Hand and Power Tools (Cr1) (1:0)
This course covers proper selection, safe use, care and maintenance of both hand and power tools.

ENGG 117 Technical Drawings and Specifications (Cr3) (3:0)
Interpreting and sketching engineering drawings and specifications; multiview projection, dimensioning, sectioning, geometric dimensioning and tolerancing; working drawings, pictorials; introduction to electrical, electronics, tooling, weld, and plastics drawing.

OSAH 100 Industry Outreach Safety Education (Cr1) (1:0)
This course is based upon the 10-hour Occupational Safety and Health Administration's General Industry and Construction Industry Outreach Training Program. The intention is to provide entry level general industry and construction industry workers a broad awareness as it relates to recognizing and preventing hazards within their respective workplaces. The discussion and information cover a variety of safety and health hazards which an employee may encounter in either workplace. This course is intended to be an orientation to the general safety practices along with introductory concepts of occupational safety and health.

WELD 105 Introduction to Welding Processes (Cr5) (2:6)
This course covers the technical concepts, various techniques, defect analysis, and safety practices in welding. Hands-on experience using shielded metal arc welding (SMAW) in all positions and cutting steel using oxy-fuel cutting apparatus. Technical concepts include code information pertinent to welder certification per ANSI/AWS D1.1 (Structural Welding-Steel).

WELD 135 Welding Fabrication and Symbols (Cr2) (1:2)
This course covers reading welding and structural drawings which includes interpreting weld symbols on welding details. Students will also develop fabrication skills including basic layout, measuring, and utilization of various welding processes. Pre- or coreq. - WELD105

EMEC 117 Industrial Rigging (Cr1) (1:1)
The course provides basic rigging skills required for installation, setting or moving of industrial equipment and the use of ladders and scaffolding. This introduction stresses safe application of rigging techniques, the use of various devices in equipment installation, alignment, lifting and the calculation of load, center of gravity and proper material handling.

WELD 110 Introduction to Pipe Welding Processes (Cr3) (1:5)
An introduction to the pipe welding process using Shielded Metal Arc Welding (SMAW) in the 2G, 5G, & 6G positions of grooved joints on pipe with and/or without the use of backup material on steel. The emphasis on defect prevention, weld analysis, techniques, problem solving, and code information pertinent to certification will be stressed throughout the course. Pre- or coreq.- WELD123

WELD 123 Advanced Plate Welding Processes (Cr5) (2:6)
Skill development in Shielded Metal Arc Welding (SMAW) using all position grooved joints on plate with and without the use of backup material on steel; emphasis on defect prevention, weld analysis
techniques, problem solving, skill development and code information pertinent to certification. Formerly WELD 823. Prereq. - WELD 105. Offered fall semester only.

**WELD 125 GTAW and Semiautomatic Welding Processes (Cr5) (2:6)**
This course covers the advanced technical information and experience in Gas Tungsten Arc Welding (GTAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) and cutting processes using standard and programmable equipment, along with Torch Brazing (TB), problem solving; defect analysis; trouble shooting equipment. Prereq. - WELD 105.