

**Western Dakota Technical Institute  
800 Mickelson Drive  
Rapid City, SD 57703-4018**

**Master Syllabus**

**Course Number:** IEL 140  
**Course Name:** Welding & Fabrication for Light Commercial Applications  
**Credits:** 2  
**Contact Hours:** 1 Lecture, 2 Lab

**Course Description:** This course is designed to teach students skills to cut, fabricate, and weld brackets, hangers for conduits and panels, stands, and hanging platforms for transformers using oxyacetylene cutting and wire feed (GMAC) welding procedures.

**Prerequisites:** None

**Textbooks:** None

**Materials:** Safety glasses

**Student Learning Outcomes:**

- List safety precautions for arc and gas welding equipment
- Evaluate safety precautions for arc and gas welding equipment
- Analyze types of welds, weld joints, and four welding position prefixes
- Differentiate types of welds, weld joints, and four welding position prefixes
- Perform cutting and welding of metal using the cutting torch, plasma torch, and GMAW

**Assessment:** Life skills, analytical skills, technology skills, and employability will be assessed throughout this course.

**ADA Accommodations:** Students Rights to Assistance or Accommodations: Western Dakota Technical Institute (hereinafter WDT) does not discriminate on the basis of disability. If you have a disability as defined by federal or state law, including a temporary disability related to pregnancy and/or parenting as a result of a medical necessity due to childbirth, WDT will provide reasonable accommodations including but not limited to architectural access, aids and services necessary for effective communication, and modification of its policies and procedures. Students with a disability who are requesting an accommodation should contact your instructor and the Student Success Director who serves as the disability coordinator as early as possible in the semester.

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