



## Find your **bright spot** in heavy metal!

**W**elders work in the manufacture of fabricated metal products, transportation equipment, machinery, and architectural and structural metals. Welders can also be found in automotive restoration and in custom motorcycle work. Experienced welders can advance to positions as technicians, supervisors, inspectors and instructors, or may open their own repair shops. Others, especially those who obtain a bachelor's degree, may become welding engineers. Employment prospects are bright! Here's your opportunity to obtain the entry-level skills you need to begin a career in welding.

*Advanced college/trade school credit is available to qualifying students from the following institutions:*



## COURSE TITLE: **WELDING/METAL FABRICATION**

### COURSE DESCRIPTION

Entry level skills in electric ARC, TIG, MIG and Plasma ARC welding techniques are introduced. These techniques are developed in areas from heavy ferrous material to highly specialized light metals common to Long Island industry. Welding, according to specifications and blueprints, is emphasized.

### COURSE CONTENT

#### Aircraft and Industrial Welding

MIG and TIG (Heli-ARC) Theory and Practice  
Thin Gauge Metal, Aircraft and Sheet Metal Fabrication  
Brazing Light-Gauge Sheet Metal  
Sheet Metal Fabrication  
Blueprint Reading, Layout and Measurement  
Plasma Arc Cutting and Resistance Spot-Welding  
ARC Welding in Sheet and Plate Fabrication

#### Structural Steel and Construction Welding

Oxyacetylene Welding and Brazing (Maintenance Welding Techniques)  
Shielded Metal ARC Welding (Stick Electrode) using AC and DC Welding Machines (Construction Welding, Equipment Repair)  
Pipe Welding  
MIG and TIG Welding (Heavy-Gauge Steel Construction Application)  
Manual and Semi-Automatic Flame Cutting  
Layout Work and Welding to Measurement, Job Design  
Plasma Cutting Techniques

### EDUCATIONAL OPPORTUNITIES

Advanced College Standing  
Associate Degree  
Trade Schools

### CAREER OPPORTUNITIES

|                        |                                      |
|------------------------|--------------------------------------|
| Machine Building       | Railroad and Transportation          |
| Aircraft Welder        | Precision and Commercial Sheet Metal |
| Construction Welder    | Welding Technician                   |
| Pipeline Welder        | Welding Inspector                    |
| Ship Building          | Welding Proprietor                   |
| Heavy Equipment Repair |                                      |

### SUGGESTED SUPPORTIVE COURSES

Algebra, Mechanical Drawing, Metal Shop

### ADDITIONAL INFORMATION

COSTS ..... Approved footwear and clothing approximately \$300  
LENGTH OF COURSE..... 1 or 2 years  
LOCATION ..... Edward J. Milliken Technical Center  
CTE/ACADEMIC CREDIT ..... Please see chart on pages 4 and 5 for updated details  
INDUSTRY CERTIFICATION ..... OSHA-10, OSHA-30 (optional)

