

# Extending Equity into the Digital Workforce

# Why IT - Welding

Combining Welding knowledge with IT skills can greatly enhance students' competitiveness and preparedness for the evolving demands of the industry.

#### 1 Emerging Technologies

IT courses expose students to emerging technologies that are increasingly integrated into welding processes, such as robotic welding systems and computer-aided design (CAD) software.

#### 2 Industry Demand

Many welding jobs now require knowledge of IT systems and software, making IT skills highly desirable for employment in the field.

#### 3 Increased Efficiency

IT skills can enhance efficiency in welding processes by enabling students to use software tools for planning, simulation, and analysis.

# 4 Quality Control

IT knowledge allows students to utilize software for quality control measures, ensuring that welded components meet industry standards and specifications..

#### 5 Safety

Understanding IT systems can contribute to safety in welding by enabling students to use monitoring and control software to identify and mitigate potential hazards.

#### 6 Remote Monitoring

IT skills allow students to learn about remote monitoring and control systems, which are increasingly used in modern welding operations for real-time supervision and troubleshooting.

#### 7 Adaptability

IT skills make students more adaptable to technological advancements in the welding industry, ensuring they can keep pace with evolving tools and techniques.

### 8 Environmental Impact

IT courses teach students about sustainable practices in welding, including the use of software for resource conservation and waste reduction.

# 9 Documentation

IT skills facilitate proper documentation of welding projects through digital record-keeping systems, ensuring traceability and compliance with regulatory requirements.

# 10 Future-Proofing

By investing in IT education, students future-proof their careers in welding by equipping themselves with skills that are increasingly essential in a technology-driven industry.