## Bachelor of Science Welding Engineering College of Engineering

Welding engineering employs science and engineering in joining components made of metals, ceramics, plastics, and other materials. Welding engineering includes design of the joints to be welded, development of the detailed joining procedures to be used, selection of the materials incorporated in the joint, joint inspection, and quality control for the final product. Welding engineering can also involve research in these areas, such as developing new welding processes or procedures for new materials. Welding engineers work with design engineers to develop efficient welding designs and fabrication procedures.<sup>i</sup>

## **Career Areas/Job Titles:**

Management and Industry

Consultant Entrepreneur Operations Manager Sales Representative Welding Engineer Weld Inspector Science and Technology Research and Design Specialist Non-Profit/Advocacy Peace Corps Volunteer Naturalist Government/Politics Lawyer Lobbyist Education K-12 Teacher Professor

\*Some careers may require licensure, certification, or further education. Talk to an advisor about specific requirements.

## **Transferable Skills:**

- Building and Construction Chemistry Focus Engineering Fundamentals Mathematic Skills Physics Foundation Persuasion Provide/Respond to Feedback Use Technology Effectively
- Conceptualization Defining Needs Developing Evaluation Strategies Forecasting/Predicting Identifying Problems Attention to Detail Judgment & Decision Making
- Implementing Decisions Organization Skills Strategic Planning/Visioning Creating Innovative Solutions Analytical/Critical Thinking Problem Solving

\*This is not an extensive list of transferable skills. See larger list of skills you might develop here: <u>http://ccss.osu.edu</u>

## **Professional Links:**

American Welding Society: <u>http://www.aws.org/w/a/</u> Materials Research Society: <u>http://www.mrs.org/home/</u> The Minerals, Metals and Materials Society: <u>http://www.tms.org/TMSHome.aspx</u> Institute of Materials, Minerals and Mining: <u>http://www.iom3.org/</u>