

Career

Paths

INDUSTRIAL & SYSTEMS ENGINEERING

The engineering discipline is diverse and features great opportunity.

A bachelor's degree in engineering will provide the opportunity to work in many areas including industry, business, and government. It is critical to gain practical experience in the field while in college through internships, part-time or summer jobs, or volunteer experience. This will allow you to apply academic knowledge and skill to a professional setting, plus you will build your professional network.

A working knowledge of technical skills relevant to your specific engineering discipline is critical, as engineering has scientific and mathematical applications and involves analyzing facts, solving problems, and thinking logically. Due to emerging technologies and rapid changes in the engineering field, it's important to follow trends and stay abreast of new developments.

In addition to technical skills, it's important to develop transferable skills such as verbal and written communication, presenting, collaboration, teamwork, report writing, and leadership. Helpful traits include intellectual curiosity, creativity, technical aptitude, perseverance, and an understanding of the economic and environmental context in which engineering is practiced.

To learn more about the field students should connect with professionals, engage in additional training opportunities, and join professional associations and organizations related to engineering.

Industrial & Systems Engineering

Example Career Paths: Project, program, or operations management | Manufacturing systems | Supply chain management and logistics | Productivity, methods and process engineering | Quality measurement and improvement | Human factors | Strategic planning | Management of change | Financial engineering | Engineering management | Six sigma | Lean

Potential Employers: State and federal government including armed forces | Small businesses, start-ups, entrepreneurship | Hospitals and healthcare organizations | Education and public service agencies | Utility companies | Retail companies | Consulting companies | Banks and financial institutions | Not-for-profit organizations

Industries: Manufacturing | Aerospace | Transportation | Construction | Communications | Electrical and electronics machinery

Professional Associations: [Association for Women in Science](#) | [Engineers Without Borders](#) | [Institute of Industrial and Systems Engineers](#) | [National Academy of Engineering](#) | [National Society of Black Engineers](#) | [National Society of Professional Engineers](#) | [Society of Women Engineers](#) | [Theta Tau Professional Engineering Fraternity](#)

Related Occupations: [Industrial and Systems Engineer](#) | [Manufacturing Engineer](#) | [Mechatronics Engineer](#) | [Validation Engineer](#) | [Quality Control Systems Manager](#) | [Industrial Production Manager](#) | [Operations Analyst](#) | [Manufacturing Engineer](#) | [Quality Control Engineer or Manager](#) | Process Engineer | Healthcare Systems Engineer | Safety Engineer

Preparing for your Career

- Obtain relevant experience through internships, part-time work, and projects.
- Acquire necessary technical skills relevant to your desired discipline.
- Develop effective analytical, problem solving, and strong interpersonal skills.
- Develop leadership and teamwork skills.
- Anticipate specializing in technologies and products related to your target discipline.
- Explore resources such as LinkedIn to connect with engineering professionals and learn about companies, industries, job duties, and skills needed to succeed in the field.
- Join student and professional organizations to build relationships, skills, and your resume.
- Create a resume that highlights your skills and experience related to engineering, technical competencies, project work, and unique qualifications.

This resource was adapted from What Can I Do With My Major.

For more, visit <https://web.uri.edu/career/wcidwmm/>

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What Can I Do With This Major? features 100 major profiles with information on common career paths, types of employers that hire in the field, and strategies to maximize opportunities. Scroll to the...

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