

# WHAT CAN I DO WITH MY ENGINEERING DEGREE?



## Using the Major Sheet:

- Large headings indicate **industry** area and subheadings indicate **employers** within that area.
- Use the titles to search for careers and related careers in order to explore your options within different areas of industry. Note that some career titles have multiple names for similar positions.
- An asterisk (\*) notes that additional training (certification, graduate school, high level of experience) may be needed in order to obtain this career. Make sure to thoroughly research career pathways.

## CHEMICAL/BIOCHEMICAL ENGINEERING

### **Relevant Industries**

- Chemical Industry
- Agricultural Chemical
- Petroleum/Fuel
- Cosmetics
- Food Processors
- Plastics
- Pharmaceuticals
- Government
- Paper/Pulp

### **Research & Development (Universities, Research Institutes, Industry)**

- Development Engineer
- Chemical Engineer
- Asst. Research Engineer
- Consumer Product R&D Designer
- Petroleum Research Engineer

### **Design and Construction (Chemical Manufacturers)**

- Project Engineer
- Asst. Design Engineer
- Process Engineer
- Designer Draftsperson
- Field Engineer
- Process Design Engineer
- Product Designer
- CAD Technician
- Automation Engineer
- Chemical Engineer
- Test Technician

### **Operations / Production (Manufacturers)**

- Business Coordinator
- Project Engineer
- Field Technician
- Reliability Engineer
- Manufacturing Engineer
- Production Engineer
- Production Planner
- Quality Control Technician
- Materials Manager
- Supplier Quality Engineer
- Chemical Engineer
- Production Manager
- Quality Assurance Engineer
- First Line Supervisor

### **Environment and Waste Management (Chemical Companies, Government)**

- Environmental Specialist
- Environmental Control Engineer
- Environmental Protection Officer
- Environmental Engineer
- Chemical Engineer
- Environmental Risk Assessor
- Safety Officer
- Project Engineer
- Process Engineer

## MECHANICAL ENGINEERING

### **Relevant Industries**

- Automotive
- Chemical
- HVAC
- Machinery/Tool Manufacturers Utilities
- Mining
- Textile Manufacturers
- Engineering Design/Consulting
- Petroleum/Fuel
- Government

### **Transportation**

- Transportation Industry Consultant
- Highway Engineer
- Automotive Engineer
- Transportation Engineer

### **Energy**

- Thermal Engineer
- Applications Engineer
- Solar Engineer
- Energy Specialist

### **Manufacturing / Production Operations / Maintenance**

- Plant Engineer
- Applications Engineer
- Test Engineer
- Process Engineer

### **Machines/Mechanical Design**

- Mechanical Technologist
- Mechanical Engineering Technician
- Mechanical Engineer
- Mechanical Design Engineer
- Mechanical Technician
- Design Engineer

### **Health**

- Biomechanics Engineer
- Sanitary Engineer
- Public Health Engineer

## **OTHER ENGINEERING-RELATED**

### **Government**

- Project Engineer
- Peace Corps Volunteer
- Chemical Engineer
- Patent Reviewer
- Security Engineer
- Mechanical Engineer

### **Human Resources**

- Technical Recruiter
- High Tech Head Hunter

### **Sales / Marketing**

- Sales Engineer
- High Tech Marketing Specialist
- Applications Engineer
- Technical Sales Rep.
- Product Engineer
- Product Manager
- Trade Show Organizer
- Technical Representative
- Marketing Research Analyst

### **Publishing**

- Technical Writer
- Editorial Assistant
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## **OPERATIONS RESEARCH / MODELING**

### **Consulting Firms, Large Corporations, Government, Research Organizations**

- Research Assistant
- Analyst Assistant
- Market Forecaster

## **BANKING / REAL ESTATE / INSURANCE / FINANCE**

- Assistant Loan Officer
- Operations Manager
- Mortgage Banker/Officer
- Claims Adjudicator
- Claims Rep / Examiner
- Commodity Broker
- Mortgage Broker
- Systems Consultant
- Real Estate Analyst/Broker
- Insurance Broker
- Securities Analyst
- Credit Analyst
- Appraiser
- Underwriter
- Insurance Agent
- Financial Analyst

## **MANUFACTURING - PURCHASING & MATERIALS MANAGEMENT**

- Operations Research Analyst
- Inventory Manager
- Assistant Quality Assurance Manager
- Industrial/Wholesale Buyer
- Assistant Buyer
- Line Supervisor
- Purchasing Agent
- Purchasing Price Analyst
- Traffic Manager
- Production Manager
- Contract Agent/Manager
- Cost Estimator

### **Preparation for a Competitive Job Market:**

- **Focus on transferable skill sets** as you pursue a degree in Engineering.
- **Obtain relevant internship, co-op, or volunteer experiences.**
- **Supplement Engineering coursework** with **classes relevant** to your career.
- **Meet with a Career Specialist** to explore options, make decisions, and prepare for career choices.

### **Additional Career Center Resources:**

- **Major Sheets (HIST, MLL, POLI, EDUC, MCS):** <http://careers.umbc.edu/tools/major-sheets/>
- **Links by Major:** <http://careers2.umbc.edu/tools/links.php>
- **Vault:** <http://careers.umbc.edu/students/discover/explore-careers-majors/>

-Click on Vault Career Insider portal link and provide UMBC user ID and password

-Select "Guides" to view relevant guides such as:

"Vault Guide to Engineering Jobs"

"Vault Guide to Information Technology Jobs"

"Vault Guide to Chemicals Industry Jobs"

"Vault Guide to Machining and Machinery Jobs"

"Vault Guide to Manufacturing Jobs"

"Vault Guide to Defense Jobs"

### • **Professional Associations:**

American Institute of Chemical Engineers: [www.aiche.org](http://www.aiche.org)

American Society of Mechanical Engineers: [www.asme.org](http://www.asme.org)

National Society for Professional Engineers: [www.nspe.org](http://www.nspe.org)

National Society of Black Engineers: [www.nsbe.org](http://www.nsbe.org)