

CAREER JOB:
Chemical Engineer



REWARDING CAREERS IN BIOTECHNOLOGY

Chemical engineers will be in high demand over the next five years. Laboratories, hospitals, colleges and pharmaceutical companies are among the many employers looking for qualified candidates to fill open positions. Successful candidates will begin with a career- and college-ready high school diploma followed by a bachelor's degree in chemistry, chemical engineering, biochemical, material science or a related science field. A master's degree or Ph.D. is preferred but not required. Interested students should focus on STEM-related fields of study and seek internships throughout their educational careers.

THE JOB

THE BASICS:

- » Industry: R&D, health care, biotechnology
- » Salary Range: \$50,000 to \$240,000 per year
- » Companies Hiring: National laboratories, hospitals, high schools, colleges and pharmaceutical companies

A DAY IN THE LIFE:

- » "I've always been a tinkerer with a hands-on approach. I like working in teams to solve big problems in renewables, environment and now biofuels. We've made fuel from grape pumice, algae, paper waste and, surprisingly, human sewage. By turning waste into fuel, we're solving two problems at once. Being a chemist is about being patient and persistent." — Rich Hallen, Pacific Northwest National Laboratory

CANDIDATE PROFILE

EDUCATION REQUIREMENTS:

- » Bachelor's degree in chemistry, chemical engineering, biochemical, material science or a related science field

WORK EXPERIENCE:

- » Interns: 0-1 years experience; entry-level: 1-3 years experience; mid-level: 3-5 years experience; senior-level: 5-10 years experience

SKILLS REQUIREMENTS:

- » Presenting and testing a hypothesis, working knowledge of math concepts, working on a team, collaborating with other teams, keeping detailed records, thoroughness, communicating clearly, analytical thinking, analyzing complex data

PATHWAYS

K-12

- » Focus coursework on subjects in the STEM fields (science, technology, engineering and/or mathematics)
- » Participate in team-based extracurricular activities

POSTSECONDARY

- » Focus coursework on chemistry or a closely related field
- » Volunteer for projects and seek team-based extracurricular activities
- » Pursue an internship working in the field

CAREER

- » Join professional networks
- » Read about works and contributions of colleagues
- » Look for ways to collaborate on similar goals