

# chemical & biomolecular engineering

## Because invention



is just  
the beginning.

Chemical and Biomolecular Engineering impacts much in our daily lives. Chemical and biomolecular engineers are experts in controlling chemical and biochemical reactions for the large-scale creation of products. The invention of a new product in a laboratory is just the first step.

TECHNOLOGY SERVING HUMANITY

Products like the clothes you wear, the foods you eat, the cell phone you use and the prescription or over-the-counter drugs you take all require chemical and biomolecular engineering to reach the market place.

#### Chemical & Biomolecular Engineering Products

- ◆ Therapeutic proteins
- ◆ Personal care products — sunscreens, shampoos, soaps
- ◆ Processed foods — breakfast cereals, sugar substitutes, potato chips
- ◆ Computer chips
- ◆ Fuels

#### Why Clarkson?

Clarkson's Chemical and Biomolecular Engineering graduates are widely known for their strong technical skills and practical orientation, as well as their abilities in teamwork, management, communications and creative problem solving. Many of these skills were obtained by tackling

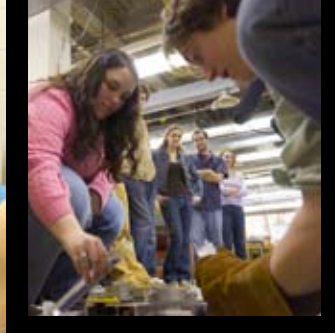
real-world problems in project-based learning environments. Through our award-winning Career Center, you can arrange a co-op or internship, earn money, gain valuable experience, and still graduate in four years. Our graduates are also accepted in the best advanced degree programs in the country, such as Caltech, MIT, Princeton, Georgia Tech, and the University of Rochester Medical School.

#### Professional Concentrations

- ◆ Biomolecular Engineering
- ◆ Biomedical and Rehabilitation Engineering
- ◆ Materials Engineering
- ◆ Environmental Engineering

[clarkson.edu/chemeng](http://clarkson.edu/chemeng)

Clarkson  
UNIVERSITY  
defy convention®



*“friendly professors, tight-knit community and an opportunity to work on real-world problems are what make clarkson a good fit for me.”*

*— katelyn parker '07, chemical engineering*

*“In addition to learning the fundamentals and interpersonal skills, I also learned how to think in a way that has given me a great ability to solve problems — a necessary skill to be successful in business today.”*

*— Jean Spence '87  
executive vice president  
global technology & quality,  
kraft foods*

### **Versatility is the Key**

Chemical & Biomolecular Engineering are very versatile disciplines, with graduates highly sought after by companies representing a wide variety of fields. Many graduates have continued their education by attending graduate school or going on to study law, medicine or business. Due to the strong technical education provided by Clarkson's Chemical & Biomolecular curriculum, graduates are among the highest paid nationally with starting salaries averaging over \$50,000.

### **Career Choices**

The Chemical & Biomolecular Engineering program provides a variety of career opportunities for our graduates.

Foods ♦ Pharmaceuticals ♦ Biomedical technology ♦ Environmental protection ♦ Advanced materials ♦ Electronics ♦ Energy ♦ Plastics ♦ Specialty Chemicals

### **Faculty Research**

Clarkson combines two distinctive strengths that benefit students: Personalized teaching and high-powered research. Our professors get to know students as individuals and teaching is a priority. Faculty members are also committed scholar-researchers with established reputations in their fields. They conduct world-class research in areas of vital importance — and involve undergraduates as well as graduate students in the process. A few examples:

- ♦ **Biosensors:** Biosensors are analytical devices that enable one to selectively identify a target molecule in environmental or biological samples.
- ♦ **Fuel cells:** Fuel cells are a promising alternative energy source that can provide electrical power with a low level of environmental pollution. Fuel cells convert chemical energy into electrical energy through electrochemical reactions.

- ♦ **Chemical Mechanical Planarization (CMP):** CMP involves chemical etching of copper surfaces on silicon wafers. This process is instrumental in producing CPU and DRAM chips for computers; communications devices, such as cellular telephones and cable modems; and consumer electronics.
- ♦ **Process Intensification (PI):** PI is a revolutionary approach to process and plant design, which results in better products, and processes which are safer, smarter, smaller and sustainable.

Interested students can also find research opportunities with the Center for Advanced Materials Processing (CAMP), the Center for Rehabilitation Engineering, Science & Technology (CREST) or with the Center for Air Resources Engineering & Science (CARES).

### **Campus Visits**

Visit our campus and find out why Clarkson has an edge over other major universities. Experience the down-to-earth, friendly atmosphere; talk to teachers/scholars who truly know their students; and explore the wide range of student activities — both on campus and off. To schedule a visit, contact the Office of Admission at 800-527-6577 or [www.clarkson.edu/visit](http://www.clarkson.edu/visit).

### **Apply for Admission!**

Can't wait to get started?  
Go to [www.clarkson.edu/apply](http://www.clarkson.edu/apply).

**For more information** about Chemical and Biomolecular Engineering, contact our staff at 315-268-6650  
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[www.clarkson.edu/chemeng](http://www.clarkson.edu/chemeng)

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