Chemical Engineering combines chemistry, biology, physics, and mathematics. Chemical engineers design processes to create, purify and transport chemicals, advanced materials and biologics—starting with experimentation in laboratories through the commercial sale.

A degree in Chemical Engineering will prepare you for a wide variety of careers related to the environment, advanced and renewable materials, energy conservation, consumer products, health, and biotechnology.

Chemical and Biomolecular Engineering Program at Clemson is praised for their undergraduate research opportunities and small class sizes that provide greater opportunity for interaction between students and faculty. As a small department, faculty and staff strive to know their students by name in order to build strong and active relationships. This creates an open learning environment that invites students to ask questions and seek additional help outside of the classroom.

2020 UNDERGRADUATE ENROLLMENT: 215
APPROX. TOTAL CREDIT HOURS*: 132
*Dependent on emphasis

clemson.edu/chbe
Chemical engineering students are sought by employers from many industry sectors including chemicals, biotechnology, business consulting, food production and processing, manufacturing, and fossil, nuclear and renewable energy.

LABS AND FACILITIES FOR HANDS-ON TRAINING
Chemical Engineering occupies all of Earle Hall, enabling students and faculty to readily go from the classroom to the lab. Work in research and teaching labs enable students to reinforce coursework with hands-on observations. The Unit Operations teaching lab is outfitted with unique, pilot-scaled facilities that ensure all students develop practical experience with industrial type equipment and state-of-the-art process instrumentation.

During two unit operations lab courses, student groups are taught by experienced faculty as they execute open-ended experiments. Many students also work alongside faculty in research and computational labs studying a wide range of topics including: renewable materials, advanced carbon fibers and composites, heterogeneous catalysis, nucleation phenomena, bio-manufacturing, advanced cancer treatments, and membrane based chemical separations.

CLUBS AND ORGANIZATIONS
Active student chapters of professional organizations include:
- AIChE – African American Institute of Chemical Engineers
- NOBCChE – National Organization of Black Chemist & Chemical Engineers
- SHPE – Society of Hispanic Professional Engineers
- SWE – Society of Women Engineers

GLOBAL ENGAGEMENT
About 15% of students elect to take the senior level unit operations lab course at Denmark Technical University in Copenhagen. This 4-week course is taken in the summer before the student’s senior year. Other study abroad opportunities are coordinated through the College of Engineering, Computing and Applied Sciences office.

EMPLOYERS
Eighty percent of our seniors went directly into the workforce after graduating, and 20% continued academic preparation in the law, medicine and dental fields. Presently, starting annual salaries average $70,000 with a range of $55,000—$105,000.

UNDERGRADUATE RESEARCH
There are numerous opportunities for undergraduates to participate in departmental research or be a part of a Creative Inquiry team advised by a faculty member. About 58% of our students participate in research during the school year and summer. Many of these students get opportunities to present their findings at national meetings or in journal publications.

CO-OPS AND INTERNSHIPS
Many chemical engineering students take advantage of co-op (over 35%) and summer intern (49%) work opportunities with campus researchers as well as local and international companies including:
- BASF
- Michelin
- Dow Chemical
- Exxon
- Eastman Chemical

GRADUATE AND PROFESSIONAL SCHOOL OPPORTUNITIES
Some of the graduate schools recently attended are:
- MIT
- UC-Berkeley
- Georgia Tech
- Northwestern
- Clemson

More info at: clemson.edu/cecas/psu