

CHEMICAL ENGINEERING, PHD

The Department of Chemical and Biological Engineering (CBE) (<https://engineering.wisc.edu/departments/chemical-biological-engineering/>) at UW-Madison was established in 1905. It has a tradition of excellence dating back to its founding and consistently ranks among the best programs in the world (<https://engineering.wisc.edu/facts-and-stats/>). The department has 21 core faculty and 7 affiliate faculty (<https://directory.engr.wisc.edu/che/faculty/>) who conduct experimental and theoretical research to address pressing societal, economic, and environmental challenges. Research in CBE (<https://engineering.wisc.edu/departments/chemical-biological-engineering/research/>) is highly collaborative and often involves diverse teams from within the department, across campus, at other campuses, and in industry. CBE researchers address the most pressing challenges facing society including developing approaches to sustainably produce new fuels and chemicals, combat the plastic pollution crisis, create new therapeutic molecules and materials, optimize energy infrastructure, computationally design new materials and chemical processes, understand transport in complex environments, engineer bacteria to produce biofuels, and more.

Research on campus is highly interdisciplinary, benefiting from prominent centers such as the Center for the Chemical Upcycling of Waste Plastics (CUWP) (<https://cuwp.org/>), Center for Cell Manufacturing Technologies (CMT) (<https://cellmanufacturingusa.org/>), Materials Research Science and Engineering Center (MRSEC) (<https://mrsec.wisc.edu/>), Great Lakes Bioenergy Research Center (GLBRC) (<https://www.glbrc.org/>), Wisconsin Institute for Discovery (WID) (<https://wid.wisc.edu/>), and the Stem Cell and Regenerative Medicine Center (<https://stemcells.wisc.edu/>).

CBE is strategically located in Engineering Hall (<https://map.wisc.edu/s/p82kgyxu/>) at the heart of the science and engineering areas of campus, facilitating interactions with students and researchers in other leading departments.

Graduate students in the department are encouraged to participate in international research experiences, industry internships, and entrepreneurial activities. For research interests and activities of faculty members, please see the department's research website (<https://engineering.wisc.edu/departments/chemical-biological-engineering/research/>) and faculty directory (<http://directory.engr.wisc.edu/che/faculty/>).