MASTER OF SCIENCE IN CHEMICAL ENGINEERING, PLAN A

In the M.S. program in Chemical Engineering, students will work side-by-side with world-renowned experts to conduct original research to address global challenges using chemical engineering principles. Our program equips students with a diverse skill set essential for the next generation of chemical engineering leaders in academia and industry. Our students are involved in a wide range of innovative research areas, including, advanced polymeric materials, bioanalytical devices, biomedical science and engineering, systems biology, synthetic biology, and biomanufacturing.

There are abundant opportunities for collaboration with various departments across the University, including departments in the Colleges of Engineering, Natural Sciences, Veterinary Medicine and Biomedical Sciences, and beyond.

The Plan A degree is completed with a thesis and satisfactory performance on a final comprehensive examination approved by the student's graduate committee.

Students interested in graduate work should refer to the Graduate and Professional Bulletin (https://catalog.colostate.edu/general-catalog/graduate-bulletin/).

Learning Objectives

Upon successful completion of this program, students will be able to:

1. Demonstrate technical mastery of the core chemical engineering disciplines of thermodynamics, transport phenomena, and chemical reaction engineering.
2. Conduct original research in chemical engineering and related fields by assembling a body of new knowledge that advances the field, to achieve significant research objectives.
3. Maintain high standards of scholarly excellence and responsible research conduct.
4. Competently and professionally communicate their research in both written and oral forms.
5. Effectively contribute to a broader research endeavor by directly collaborating with other scientists and engineers, or by conducting and communicating their work in such a way that their individual contributions are readily assimilated with the work of other researchers in their field and related fields.