

Introduction to Chemical Engineering

ENGIN 110

COURSE DESCRIPTION AND OBJECTIVES

This course is intended to provide beginning engineering students with a clear overview of the field of chemical engineering so they can confidently decide if they want to pursue chemical engineering as a profession. Throughout the semester, students will develop basic skills in problem solving, computation, process design, and communication that will help them in all future engineering courses.

At the end of this course students should:

1. Understand what chemical engineering is, and what careers are possible with a degree in chemical engineering;
2. Be able to use Microsoft Office (Word, Excel and Powerpoint) to write technical papers, create spreadsheets to perform calculations, and to design effective presentations;
3. Develop proficient oral presentation skills through group project presentations;
4. Understand the role of chemical engineers in process design;
5. Understand the importance of process economics in process design;
6. Be able to perform material balances on nonreactive systems;
7. Acquire an appreciation for the role of ethics and laboratory safety in the field of chemical engineering; and
8. Be prepared to use the principles and tools learned in this class to solve problems not covered in detail as part of this course and to continue learning related material as needed in the future.

INSTRUCTOR

The instructor for the course is Dr. Neil Forbes. Office hours will be scheduled for the purpose of discussing any concerns or questions that may arise, and we encourage you to take advantage of them. Questions on homework assignments are welcome assuming you can show an initial effort.

Dr. Neil Forbes
101 Goessmann Hall
forbes@ecs.umass.edu

Telephone: 577 - 0132
Office hours: Monday 4-5 PM

TEACHING ASSISTANTS

We are very fortunate to have four excellent chemical engineering graduate students as TAs for this course. They will be responsible for grading homework assignments/papers and for helping