

CHEN 5253-001 Spring 2018

Welcome to the landing page for Process Design I. Below are useful links for the course.

- [Course Webpage](#)
- [Course Syllabus](#)
- [Course Schedule with links to HW, Lecture Slides and Screen Casts](#)
- [Perry's Chemical Engineers' Handbook](#), (8th edition) online
- [Student Companion Site](#), for Seider's Product and Process Design Principles book
 - [Equipment Costing](#) (Excel)
 - [Profitability Analysis 4.0](#) (Excel)
- [YouTube Aspen Plus v9 Tutorial Series](#), by Lafayette University

Course content is divided into ten weekly subject areas after a review of process economics. Each subject area involves (1) weekly reading material and (2) a weekly homework assignment – **most are memo reports**. The subject areas are listed below. Links to the reading assignments and homework assignments, can be found in the Course Schedule. In addition the course will consist of the AIChE contest problem that will be performed during the last month of class and turned in on the last day of classes.

- Review of Process Economics
- Process Creation and Process Simulation Heuristics
- Reactors
- Separation Systems
- Reactor, Separation and Recycle
- Effects of Impurities in Processes
- Heat and Power Integration
- Flow Sheet Optimization
- Plant-wide Control
- Sequential Batch Processing
- Project Management