

**Dynamics and Control of Chemical Processes**  
**ChE 105**  
**Spring 2007**

**Instructor:**

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**Lectures:** 106 Spalding, TR 9-10:30 am.

**Office Hours:** TBD

**Textbook:** *Process Dynamics and Control*, 2nd edition by Seborg, Edgar and Mellichamp.

**Problem Sets:** Weekly, due on Thursdays

**Web:** <http://www.che.caltech.edu/groups/ara/courses/che105>

**Grading:**

Problem sets (20%)  
Midterm exam (40%)  
Final exam (40%)

Exams will be closed book.

**Catalog description:**

(3-0-6); Prerequisite: ChE 101 or equivalent, ACM 95/100 abc or concurrent registration. Analysis and design of dynamic chemical systems, spanning biomolecular networks to chemical processing. Topics include control strategies for regulating dynamic performance, formulation of mechanistic and empirical models, linear analysis of feedback systems, introduction to multivariate control.