

Overview

The course provides a comprehensive review of reactor design, and progressively specializes on transport phenomena in catalytic reactors, synthesis and characterization of catalysts, numerical simulations and industrial applications.

Instructor

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Office hours: By appointment

Class hours

Tuesdays & Thursdays, 9:30 am - 11 am, Neville Scarfe Building 202

Grade breakdown

Assignments (5 in total) - 25%
Term project - 15%
Final examination (take-home) - 60%

Suggested references

1. H. S. Fogler, *Elements of Chemical Reaction Engineering*, 5th Edition
2. O. Levenspiel, *Chemical Reaction Engineering*, 3rd Edition
3. J. M. Smith, *Chemical Engineering Kinetics*
4. C. G. Hill, Jr., *An Introduction to Chemical Engineering Kinetics & Reactor Design*
5. R. B. Bird, W. E. Stewart & E. N. Lightfoot, *Transport Phenomena*, 2nd Edition
6. D. A. McQuarrie & J. D. Simon, *Physical Chemistry: A Molecular Approach*