Textbook:
ISBN. 9781470076047

Course Prerequisite: Physical chemistry and transport phenomena, or permission of instructor.

Homework: Homework will be required on a nearly weekly basis. We anticipate 10 HW assignments. Homework will be collected but not graded. Solutions will be provided. We will record whether they were turned in or not (10% of grade). Late assignments not accepted.

Course Grade: Depending on the year, mix of exams, design projects, homework

Topics.
Chapter 1-10
Tentative Outline (Changes from year-to-year, especially towards the semester end).

Week #1: Chapters 1 and 2: Introduction, Background Concepts
Week #2: Chapters 2 and 3: Background Concepts, Electrode Kinetics
Week #3: Chapter 3: Electrode Kinetics
Week #4: Chapter 4: Thermodynamics
Week #5: Chapter 4: Thermodynamics
Week #6: Chapter 5: Transport Phenomena
Week #7: Chapter 5: Transport Phenomena
Week #8: Chapter 6: Current Distributions
Week #9: Chapter 6 and 7: Current Distributions and Rotating Electrodes
Week #10: Chapter 7: Rotating Electrodes
Week #11: Chapter 9: Porous Electrodes
Week #12: Chapter 9: Porous Electrodes
Week #13: Special Topics
Week #14: Special Topics