



Fuel Cells and Catalysis

CBE 5713

Credit Hours:

3.00 - 3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

Course Components:

Lecture

Course Description:

An introduction to fuel cells and related concepts with an emphasis on the catalytic phenomena involved in fuel cells.

Prerequisites and Co-requisites:

Prereq: ChBE 3508, 3610 (610), 509, Chem 4310, or 531, or Grad standing, or permission of instructor

Course Goals / Objectives:

- Mastery of basic principles associated with fuel cells
 - Familiarity with fuel cell operation
 - Familiarity with fuel cell characterization
 - Exposure to catalytic phenomena involved in fuel cells
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Course Topics:

- Introduction to fuel cells
 - Overview of fuel cell types
 - Fuel cell thermodynamics
 - Fuel cell kinetics
 - Fuel cell charge and mass transport
 - Fuel cell catalysts and related phenomena
 - Fuel cell characterization
 - Fuel cell systems
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Designation:

Elective