

CHMD79H3F
TOPICS IN BIOLOGICAL CHEMISTRY
FALL 2021 SYLLABUS

Course Instructor

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Sept. 16 Electrodes and Voltammetry-1

Learning objectives: Solid electrodes (Glassy carbon, carbon paste, metal electrodes), mercury electrodes, microelectrodes, screen-printed electrodes, reference electrodes, cyclic voltammetry-1

Sept. 23 Voltammetry-2

Learning objectives: Cyclic voltammetry-2, differential pulse voltammetry, square wave voltammetry, stripping voltammetry, amperometry

Sept. 30 Electrochemical Impedance Spectroscopy

Learning objectives: AC voltammetry, Nyquist plot, Bode plot, Equivalent circuits.

Printable nonenzymatic glucose biosensors using carbon nanotube-PtNP nanocomposites modified with AuRu for improved selectivity

Nov. 25 Oral presentations-1

Dec. 2 Oral presentations-2

Evaluation:

The deadline for the online exam is

Take-home Mid-term	30%	<u>From October 20th, Wednesday 9 am to October 22nd, Friday 5 pm (EST)</u> Mid-term exam will be conducted online from October 20 th , Wednesday 9 am to October 22 nd , Friday 5 pm (EST). The exam will be open for 72 hours. The exam will be conducted on the Blackboard system. The exam will be open for 72 hours. The exam will be conducted on the Blackboard system. The exam will be open for 72 hours. The exam will be conducted on the Blackboard system.
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From December 13th, Monday 9 am to December 17th, Friday 5 pm (EST)

**Take-home
Final Exam** **40%**

The final exam will be conducted online from December 13th, Monday 9 am to December 17th, Friday 5 pm (EST). The exam will be open for 120 hours. The exam will be conducted on the Blackboard system. The exam will be open for 120 hours. The exam will be conducted on the Blackboard system.

Course Policies and General Information:

