1-2003

BIOC 486.01: Biochemistry

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Biochemistry 486

Putting 4 Years of Theory to Work!

Learn molecular biology and biochemical techniques!

Lab and lecture are integrated into a semester-long research project.

- Site-directed mutagenesis
- Recombinant protein expression in bacteria
- PCR techniques
- Protein purification
- Protein characterization
- SDS-PolyAcrylamide Gel Electrophoresis
- UV/Vis Spectroscopy
- Electrochemistry
- Electron Paramagnetic Resonance

Enrollment is limited, so sign up soon!

BIOC 486

CRN 33040
Currently 2 credits - might be 3 by 2003
McGuirl
TR
9:30A-12:30P
HS 406

The main goal is to understand how mutations in amino acid sequence may affect the biochemical properties of a protein. Each student will prepare a different mutant of azurin, a blue copper protein that is involved in electron transfer during bacterial respiration. The mutants will be purified and characterized by a variety of spectroscopic techniques. At the end of the course, students will compare notes and write a summary of the effects of the various mutations on the biochemical properties of the protein. Students will gain experience in gene cloning and recombinant protein expression in bacteria, site-directed mutagenesis, PCR techniques, protein purification, and protein characterization, including several types of spectroscopy. They will also be given at least one journal article that we will discuss in class.