

CHEM750T11: Bioelectronics

Course Summary:

This course covers many advanced topics in the principle, fabrication, and applications of bioelectronics involving nanotechnology. The students will be introduced to the fundamental building blocks of bioelectronics, strategies for fabrication/organization of micro/nanostructures, and design/characterization of the bio-interfaces. Frontier research in the field of bioelectronics and applications (e.g. biosensors, implantables, cell culture analog, biological computers), especially advancements enabled by nanotechnology, will be reviewed at the conclusion.

Grading:

Midterm exam – 40%, Final Report – 60%

Course Text:

No required books for the class, as it will range over a great deal of territory. References and suggested readings will be given as time comes.