BIOL691/BINF739: Molecular Modeling for Biologists

Course Time: Tuesday, 7:20 pm – 10:00 pm

Location: Bull Run Hall 249, Prince William Campus

Instructor: Dmitri Klimov
- Occoquan Building, Room 328B, Prince William Campus
- 703-993-8395
dklimov@gmu.edu
- Office hours: 2-3pm Monday or by appointment

Required textbook: class uses online notes and materials

Class website: www.binf.gmu.edu/dklimov

Course Description: This course is designed for the students with the background in biology and who are interested in using computer modeling for biomolecules. The course consists of two parts. The first includes four lectures, describing the usage of modeling and visualization software, such as NAMD, Autodock, and VMD. During the second students work on individual research projects, which include docking of ligands to proteins, the effect of mutations on protein native structure, or protein unfolding. The course does not require programming or prior knowledge of computational modeling.

Prerequisites: BIOL 213 Cell Structure and Function and BIOL 483 General Biochemistry or equivalent or permission of instructor. Working experience with Windows or Linux operating systems.

Grading Policy:
- Homework 40%
- Course project 60%

Academic Honesty Policy: Students are expected to follow the Honor Code. Academic dishonesty will not be tolerated in this class. Exams, projects, and homework must reflect individual work. If you have difficulty with the assignments, discuss it with the instructor.

*If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Resources at 703/993-2474. All academic accommodations must be arranged through that office.*