BIOL 6810, CSCE 6810, MATH 6710
Advanced Topics in Computational Life Sciences
Topic: Modeling Epidemics – From Gene to Population

Course Information & Syllabus (Fall 2016)

Instructors: Rajeev K. Azad and Armin R. Mikler
Lectures/Seminar: Monday 5:30 – 8:20 pm
Office Hours: (Mikler) Tu 9:30 – 11:00 am or by appointment
(Azad) W & F 8:30 – 10:00 am at GAB 434 or by appointment
Office: A316 LSC and GAB 434 (Azad), NTDP F245 (Mikler)
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Required Textbook: There will be no required textbook. The course will be based on published journal and conference articles.

Course Objective: This course focuses on the new topic of modeling and simulating the effects of genetic modifications in pathogens on the dynamics of resulting disease outbreaks in the population. The goal in this course is to explore the literature on the topics of modeling and simulation as related to this field in Life Sciences, encompassing Bioinformatics, Public Health, Computational Biology, and Health Informatics. Students will read published research, prepare in-class presentations, and will lead a discussion of articles during class.

Assessment: Assessment is primarily based on paper presentations (45%), project work and written reports (30%), and class participation—attendance and discussions (25%).

Attendance: Attendance is essential and thus is expected.

Americans with Disabilities Act: We cooperate with the Office of Disability Accommodation to make reasonable accommodations for qualified students (cf. Americans with Disabilities Act and Section 504, Rehabilitation Act) with disabilities. If you have not registered with ODA, we encourage you to do so. If you have a disability for which you require accommodation please discuss your needs with the instructor or submit a written Accommodation Request on or before the fourth class day.