**Introduction to Modern Biomedical Databases (BIPG540/740)**

**Summary:** The course will last 5 weeks during the Summer I session. Students will learn extensively about relational databases as an alternative to textual databases. Topics include design and implementation of custom databases, modification of pre-existing databases, and database management. Students will become well versed in SQL, including database construction, modification, and query design. Use of relational databases as an analytical tool will be emphasized.

**Instruction:** The course is taught by Alexei Fedorov.

**Course director:** Dr. Alexei Fedorov, Dept. of Medicine, Vice Director BPG Program, Director of Bioinformatics Lab, (419) 383-5270, alexei.fedorov@utoledo.edu.

**Format:** One credit hour course in a distance learning format (video lectures/labs) with the ability to meet lecturers every week. Each day will consist of a lecture followed by a computer lab session to reinforce the lecture’s topic.

**Office hours:** Every Tuesday and Thursday from 9 AM to 10 AM in the office of Dr. Fedorov (Room 0012 at Ruppert Center, HSC; tel: 419-383-5270). Also students may contact remotely via Skype (Afedorov_lab) every Tuesday from 8 PM to 9 PM.

**Homework time policy:** Each homework must be returned in ten days by noon. (For example, for a Tuesday class this homework must be returned via e-mail next Friday by 12 pm.) Absolutely NO excuse for a late homework return (automatic F). Each lecture/lab will be available on the web in advance for at least one week, thus, ≥17 days will be allocated for the homework.

**Grading principles:**

- Homework 40%
- LABs+ activity 10%
- Mid-term Exam 20%
- Final Project 30%

Course will be graded S/U. A satisfactory grade will require completion of all lab assignments and not more than one missed day (lecture+lab)

No prerequisites are required. Please contact course director with any further inquiries (Dr. Alexei Fedorov, 419-383-5270, Alexei.Fedorov@utoledo.edu).