

GAIN TRAINING IN BIOINFORMATICS THROUGH HANDS-ON EXPERIENCE

Practical Bioinformatics (BIPG511/711) Summer I - 1 credit

Instructor: Robert J. Trumbly, Ph.D.

Format: Short lectures integrated with computer tasks in Bioinformatics Computer Lab (HEB 119). The bioinformatics resources will primarily be those freely available on the internet.

The course will meet twice a week for 2-hour sessions in the Bioinformatics Computer Lab. The course will last four weeks during the Summer semester. The following topics will be presented in the eight sessions: searching biological databases, pair-wise sequence alignments, BLAST searches, multiple sequence alignment, phylogenetic analysis, gene prediction, and transcription factor binding sites and other DNA motifs.

No prerequisites! Do not hesitate to contact the course director with any questions about the course: (Dr. Robert Trumbly, 419-383-4347, Robert.Trumbly@utoledo.edu).

Schedule: Tuesday and Thursdays, 2-4 PM, room HEB 119, on the UT Health Science Campus. First class session will be on May 13, 2008.

HARNESS THE POWER OF ADVANCED DATABASE TECHNOLOGY TO HELP TRACK AND ANALYZE YOUR BIOLOGICAL DATA. STUDENTS WILL LEARN HOW TO USE, UNDERSTAND AND EVEN DESIGN THEIR OWN CUSTOM DATABASES FOR MORE EFFECTIVE RESEARCH.

Introduction to Modern Biomedical Databases (BIPG540/740) Summer I – 1 credit

Director: Alexei Fedorov, Ph.D. Instructors: Peter Bazeley, Jason Bechtel and Samuel Shepard

Format: Each day will consist of a lecture followed by a computer lab session to reinforce the lecture's topic. Lectures and labs will be taught in the Bioinformatics Computer Lab (HEB 119). Students will use BPG's Linux Cluster to access a database system for lab assignments.

The course will meet twice each week for a 1-hour lecture followed by a 1.5-hour lab. 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.

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.

Schedule: Monday and Wednesday, 10-12:30 PM, room HEB 119, on the UT Health Science Campus. The first session will be held on May 12, 2008.