## CS 611: Research in Computer Science, Spring 2012

#### **Course Description**

Credits: 3-9 Doctoral research under the supervision of a graduate faculty member.

By the end of the course, the successful student is expected to be able to:

\_ broaden the knowledge in the area of data mining and bioinformatics;

\_ develop new tools for large scale data analysis;

\_ write comprehensive documentation and to communicate effectively results to a range of audiences;

Jinze Liu	Meeting Time:	TR	11:00AM-12:00PM
liuj@cs.uky.edu	Meeting Place:	Com	puter Labs.
http://www.cs.uky.edu/~liuj	<b>Office Hours</b> :	By a	ppointment
(859) 257 – 3101	Office: 235 James F. Hardymon Building		

### **Prerequisite:**

36 credit hours of graduate course work in computer science and approval of the Departmental Committee on Higher Degrees

### **References: (No required textbook)**

1). Data Mining --- Concepts and techniques, by Han and Kamber, Morgan Kaufmann, 2006. (ISBN:1-55860-901-6)

2). Principles of Data Mining, by Hand, Mannila, and Smyth, MIT Press, 2001. (ISBN:0-262-08290-X)

3). Introduction to Data Mining, by Tan, Steinbach, and Kumar, Addison Wesley, 2006. (ISBN:0-321-32136-7)

4). The Elements of Statistical Learning --- Data Mining, Inference, and Prediction, by Hastie, Tibshirani, and Friedman, Springer, 2001. (ISBN:0-387-95284-5)

5). Pattern Recognition and Machine Learning, by Christopher M. Bishop, 2006.

# Grading

This is a three credit-hour course; the student should expect to spend, on average, six to nine hours per week in addition to meetings on study and development. The meetings will focus on discussing difficult elements of the project and discussing the student's progress. The final write-up and presentation at the end of the semester will summarize the project outcomes and student's accomplishments. The final presentation is in the form of a formal seminar presentation.

Meeting and	50%
Discussion	

Presentation	20%
Project Report	30%

#### **Academic Conduct Expectations**

Students are expected to complete all assignments independently. Honest and ethical behaviors are always expected. There will be no tolerance for plagiarism or other academic misconduct. The minimum punishment is an E grade that cannot be removed by the repeat option. You may read U.K. Student Rights and Responsibilities at http://www.uky.edu/StudentAffairs/Code for a detailed description.