DEPARTMENT OF COMPUTER SCIENCE
The UNIVERSITY *of* WESTERN ONTARIO

CS 411A/538A

Data Mining and Its Applications

September 1999

COURSE SUMMARY

Data mining is playing an increasingly important role in e-commerce, financial industry, retail industry, and Internet services. It integrates techniques from machine learning, artificial intelligence, statistics, visualization, and database marketing to discover implicit and useful knowledge from vast datasets.

The course will provide a comprehensive introduction to data mining, various data mining techniques, and some successful applications. Advanced topics may be discussed later in the semester.

Some prior knowledge of database, artificial intelligence, machine learning, and statistics will be helpful in taking this course.

EVALUATIONS: Two small/medium-sized assignments (tentative due date: 10/15, 11/19), an in-class midterm (tentative due date: 10/29), and one moderate-sized (group) project (tentative due date: 12/6).

TEXTBOOK: Data Mining: Concepts and Techniques. By Jiawei Han and Micheline Kamber. Morgan Kaufmann. To be published in 2000. Students may purchase the pre-print copy of the book.

WEB: www.csd.uwo.ca/faculty/ling/cs411a

ROOM CHANGE: From Sept 13: Monday 1-2 pm UC 224; Friday 1-3 UC 30.

INSTRUCTOR
Charles Ling (Associate Professor); ling@csd.uwo.ca; 661-3341 (o)

INTRODUCTORY TOPICS WILL BE CHOSEN FROM:
Data Mining Case Studies
Data Mining Processes
Evaluation Criteria
Decision Tree Learning
Case-Based Reasoning
Statistical Methods
Market Basket Analysis
Clustering
Artificial Neural Networks
Bayesian Learning
Genetic Algorithms