# COMP 7630 Web Intelligence and Its (3,3,0) (E) Applications

This course introduces the fundamental concepts as well as practical applications of Web Intelligence (WI) which combines contemporary Artificial Intelligence and advanced Information Technology in the context of Web-empowered systems, environments, and activities. Also, advanced topics related to Web Intelligence (WI) and their impact to different sectors of the society will be covered. After taking this course, students should be able to (1) identify the possible impact of Web Intelligence in the society, and (2) apply WI related techniques to advance existing Web-based systems and on-line business platforms.

## COMP 7640 Database Systems and (3,3,0) (E) Administration

This course is to provide an in-depth knowledge of relational database management systems (RDBMS). Topics include: conceptual modeling of a database, relational data model, relational algebra, database language SQL, relational database design, data storage, index structures, query evaluation, transaction processing, concurrency control, and crash recovery. In addition, advanced topics such as distributed databases and data warehouses will also be covered. The students will have a thorough understanding of RDBMS after taking this course.

## COMP 7650 Data Mining and Knowledge (3,2,1) (E) Discovery

Prerequisite: Basic knowledge in probability and statistics, basic database concepts

This course aims to introduce fundamental issues of knowledge discovery and the common data mining techniques including statistical methods and machine learning methods. Furthermore, their potential applications to a variety of areas such as business, finance, medicine, and so forth, are shown via some case studies.

# **COMP 7680** Internet and World Wide Web (3,3,0) (E) Students will learn the principles of the Internet and the World Wide Web and study some advanced/current topics. After completing this course, students will understand the principles of the Internet and the World Wide Web and be able to develop and manage Internet systems.

# COMP 7700 E-Technology Architectures, Tools (3,2,1) and Applications

This course will develop students' understanding of recent developments in e-technologies, including XML, Web services, service-oriented architecture, Web-enabled business processes, as well as related architectures, tools, and applications. It will also enable students to acquire the capability to design and develop software systems based on e-technologies and to apply them to some domain applications.

#### COMP 7730 MSc Project (3,\*,\*

Pre/co-requisite: Either COMP 7900 Project and Research Skills in IT Management or COMP 7920 Project Skills in IT Management or COMP 7950 IT Project Skills

Students work on the projects proposed by themselves. Each project is supervised by an academic staff, and it may be cosupervised by practicing professionals. After completing the projects, students will submit written reports and present their results (e.g. new methodologies, IT systems, or critical surveys). Each project will be assessed by the supervisor(s) and one additional academic staff on four aspects: (1) project management and progress, (2) methodologies and results, (3) report writing, and (4) oral presentation. Through these projects, students will develop (1) mastery of integrating concepts with practice in IT Management, (2) creative and systematic problem solving skills for designing, analysing, managing or developing IT systems, (3) self-learning capability for sustainable self-development in the rapidly changing IT field, and (4) report writing and presentation skills for effective communication in IT enterprises.

#### COMP 7740 Supplementary Programming (0,\*,\*) (E)

This course provides students with basic knowledge of computeroriented problem solving methodologies, algorithm development, structured programming concepts and design techniques, and implementation tools that facilitate debugging and testing. In particular, structured programming skills will be illustrated with a contemporary programming language. This course is open to MSc in Information Technology Management students with inadequate programming background.

# COMP 7750 Information and Knowledge (3,3,0) (E) Management

This course introduces the basic principles and technologies of information and knowledge management. Information storage and retrieval systems, knowledge management solutions, and knowledge management systems will be covered. Students will be able to understand the impacts of information and knowledge management in business and organization. They will be able to utilize information and knowledge management to maximize productivity.

### COMP 7760 Special Topics in Business Analytics (3,3,0) Prerequisite: The pre-requisite depends on the specific topics

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the chosen topics will be announced before the semester starts.

Students will learn state-of-the-art topics in business analytics. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand some current topics in and methodologies of business analytics.

#### COMP 7770 Special Topics in IT Management (3,3,0) (E)

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the chosen topics will be announced before the semester starts.

Students will learn state-of-the-art topics in IT management. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand some current topics in and methodologies of IT management.

## COMP 7780 Special Topics in Knowledge and (3,3,0) Information Management

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the chosen topics will be announced before the semester starts.

Students will learn state-of-the-art topics in knowledge and information management. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand some current topics in and methodologies of knowledge and information management.

## COMP 7790 Special Topics in Internet and Web (3,3,0) (E) Technologies

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the chosen topics will be announced before the semester starts.

Students will learn state-of-the-art topics in Internet and Web technologies. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand some current topics in and methodologies of Internet and Web systems.

#### COMP 7800 Analytic Models in Information (3,2,1) (E) Technology Management

This course aims to introduce different analytic models used in the management of information technology. These include practical applications of quantitative analysis techniques in business decision making, process modeling, planning and evaluation. The course focuses on the ability to recognize the appropriate models applicable to diverse information technology management situation, and to identify solutions to them. Emphasis will be placed on problem formulation and solution application rather than mathematical derivations.