

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

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 Discovery (3,2,1)

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)

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 and Applications (3,2,1)

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: 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 co-supervised 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,*,*)

This course provides students with basic knowledge of computer-oriented 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 Management (3,3,0)

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 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)

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 Information Management (3,3,0)

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 Technologies (3,3,0)

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 Technology Management (3,2,1)

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.

COMP 7810 Business Intelligence (3,2,1)

Students will learn the methodologies and concepts of business intelligence, including the characteristics, architectures, and development of data warehouses and data marts. After completing the course, the students will understand the features and applications of Online Analytic Processing (OLAP), and identify the different types of OLAP. Emphasis will be placed on the understanding of enabling technologies and their applications to improve operations and decision making in business and healthcare contexts.

COMP 7820 Decision Analysis and Support (3,2,1)

To provide a study of decision analysis and support processes and relevant tools that provide support to such processes. Students will learn the challenges and techniques of decision making in an environment of imperfect and changing information. Both the qualitative and the quantitative aspects of decision analysis and support will be covered.