

**COMP 7530 IT Forum (1,1,0)**

Students are exposed to the current IT practices through seminars given by IT professionals and academic staff, interacting in small groups with IT practitioners, and/or company visits. After completing this course, students will understand the current IT practice.

**COMP 7540 IT Management: Principles and Practice (3,2,1)**

This course deals with the management of information systems and technology as it is being practised in organizations today to produce value for businesses and consumers.

**COMP 7550 IT Project Management (3,3,0)**

This course deals with project management and addresses issues in information technology project development. On completion of the course, students should (1) have acquired basic skills for project managers, (2) be able to develop and prepare project plans for effective resource utilization, and (3) be able to manage IT development projects.

**COMP 7560 Information Systems Auditing (3,3,0)**

This course is to give students a thorough grounding in the theory, techniques and practical issues involved in computer-based information systems auditing. The students will have an in-depth understanding of auditing concepts and methods after taking this course.

**COMP 7570 IT Laws and Ethics (3,3,0)**

This course examines legal and ethical issues in the use of information technology. On completion of the course, students should (1) understand intellectual property rights issues, (2) understand the legal obligations of a computer professional, (3) understand the importance of professional codes of conduct, and (4) be able to derive and justify a personal position on moral and ethical matters related to computers in society.

**COMP 7580 Electronic Transformation in Business (3,3,0)**

This course covers the use of technology in many aspects of a business, with particular emphasis on concepts and practices for modeling, specifying and integrating within-enterprise and B2B business processes. How the business process related to customer relationship management, enterprise resource planning, supply chain management, etc. could be transformed in the Internet era will be covered. Some case studies related to e-transformation in Business will also be discussed. Students after taking this course should be able to (1) understand how e-technologies can facilitate process/application integration with and across enterprise, and (2) evaluate the cost and benefit that e-transformation can bring to different business processes of an enterprise.

**COMP 7590 Information Management Systems Development (3,2,1)**

To extend the student's knowledge of information management systems and development methodology through the study of advanced theories and methodologies, and to examine the critical issues of current information systems (IS) research, so as to provide a student an integrative perspective of information management systems and development.

**COMP 7630 Web Intelligence and Its Applications (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.

This course introduces the fundamental concepts as well as practical applications of Web Intelligence (WI) which combines contemporary Artificial Intelligence and advanced Information Technology (e.g. wireless networks, ubiquitous devices) 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 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,\*,\*)**

Prerequisite: COMP 7900 Project and Research Skills in IT Management

Students work on the projects proposed by themselves in COMP 7900 Project and Research Skills in IT Management. 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)**

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)**

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)**

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)**

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 business operations and decision making.

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

To provide a study of business decision making processes and the types of information systems that provide support to such processes, including the characteristics and architectures of such systems. Students will learn the challenges and techniques of managerial decision making in an environment of imperfect and changing information. Both the qualitative and the quantitative aspects of decision making will be covered.

**COMP 7830 Health Informatics (3,3,0)**

In this course, students will learn the following: (1) structures, operations and workflow in healthcare organizations, (2) data and data standards in the healthcare industry, (3) information technology in healthcare, and (4) health information systems.

**COMP 7840 Management of Medical Visual Data (3,2,1)**

In this course, students will learn (1) some fundamental image processing techniques, (2) the characteristics of different types of medical images, (3) the structure and components of visual information management systems, and (4) the architecture and application of picture archiving and communication systems.

**COMP 7850 Information Security Management (3,2,1)**

This course studies the principles of information security management. The course content is compatible with current industrial standard in information security (e.g. CISSP certification). The students will also learn the current topics and issues in information security management. On completion of the course, students should be able to (1) understand the principles of information security management, (2) acquire the knowledge equivalent to current industrial standard in information security (e.g. CISSP certification), and (3) identify practical information security principles and guidelines with the consideration of legal and privacy issues.

**COMP 7870 IT Innovation Management and Entrepreneurship (3,3,0)**

The development of information technology and innovations plays an increasingly important role in enhancing the competitiveness of countries, organizations, and individuals. Using a combination of lectures, case studies and discussions, term project, and guest lectures, this course prepares students for the technology and information economy by providing the knowledge and skills necessary for innovation management and entrepreneurship. With particular emphasis on information technology-related activities, this course aims to (1) introduce students to the fundamental concepts, practices, opportunities, and challenges related to innovation management and entrepreneurship, (2) provide students with frameworks and tools for the successful management of innovation from idea generation to market exploitation, and (3) stimulate students' interest in entrepreneurship and thus cultivating an entrepreneurial spirit.

**COMP 7880 E-Business Strategies (3,3,0)**

E-business offers real and abundant opportunities for small, medium and large companies throughout the world. However, success in e-business rarely happens without strategy. This course exposes students to contemporary management thinking, methods, and strategies necessary to effectively build and manage e-business systems. Using a combination of lectures, case studies and discussions, in-class assignments, and term project, this course aims to; (1) introduce students to the fundamental concepts and approaches of strategic management, (2) provide students with a comprehensive framework for understanding the business models and strategies for e-business, and (3) prepare students to be active participants in formulating and implementing e-business strategies for organizations.

**COMP 7890 Dynamic Web Programming (3,2,1)**

Prerequisite: Basic knowledge on database and computer programming

This course aims to cover key concepts, technologies and skills on server-side and client-side Web programming, including HTML, CSS, JavaScript, basic server-side programming, database connectivity via Web, session management, as well as more advanced topics like AJAX, JavaScript API, Web services, and Web APIs.

**COMP 7900 Project and Research Skills in IT Management (3,\*,\*)**

The course provides students with basic knowledge of and develops their skills in conducting projects and research in the field of IT management. It also develops students' skills in critical reading, thinking, and writing.