

Information Technology

Course Description

(Unless otherwise specified, all are 3-unit term courses of three hours of lecture and one hour of tutorial per week.)

ITM 1010

Computer and Communication Technologies

Introduction to digital logic. Combinational circuit. Storage devices. Organization of a modern computer. Fundamentals of telecommunications: analog and digital signals, bandwidth, multiplexing and compression. Telecommunication systems such as fixed link, optical, wireless, and satellite communication systems. (Not for Engineering Faculty Majors.)

ITM 1020

Introduction to Programming

Introduction to JAVA and object-oriented programming. Computing techniques for solving problems. Data structures and algorithms. Application examples. (Not for Engineering Faculty Majors.)

ITM 2010

Internet Technology

Transmission media. Physical and data link layer. LAN and WAN technologies. TCP/IP protocols. Client-server systems. Architecture and protocols of World Wide Web (WWW). Emerging technologies. (Not for Engineering Faculty Majors.)

ITM 3010

Database Management

Data and information. Data modelling. Data integrity. SQL. Database architectures and implementation. Data administration. Groupware. Internet and information services. (Not for Engineering Faculty Majors and students who have taken CSC 3170 or DSE 4070.)

ITM 3020

Information Systems Management Practices

Systems development practices: requirement analysis and specifications, design and implementation, project management, quality assurance, cost and effectiveness analysis, documentation. Systems management practices: information systems planning, information technology acquisition, budgeting, deployment, auditing, and performance evaluation; ethical and social issues. (Not for Engineering Faculty Majors and students who have taken DSE 4120.)

ITM 3030

Electronic Commerce Technology

Internet and World Wide Web. Network security and firewalls. Cryptography and digital signature. Electronic payment systems. Internet advertising and marketing. Interorganizational systems and electronic data interchange. Course project. (Not for Engineering Faculty Majors and students who have taken DSE 3050 or 4150.)

ITM 3040

Multimedia Technology and Applications

Hypertext. Representation of sound, image and video. Coding standards. Multimedia hardware. Applications examples such as multimedia presentation, multimedia database and digital library. Course project. (Not for Engineering Faculty Majors.)

Study Scheme

Students are required to complete a minimum of 15 units as follows:

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| (i) | Required Courses:
ITM 1010, 1020, 2010 | 9 units |
| (ii) | Elective Courses:
ITM 3010, 3020, 3030, 3040, CSC 3250, INE 2720,
SEG 3540 | 6 units |

Total: 15 units

- Notes: 1. This minor programme is offered to non-Engineering Faculty Majors only.
2. Students are advised to take ITM 1020 prior to taking other courses.
3. The units earned by taking CSC 3250 or INE 2720 which count towards the requirement of this Minor Programme in Information Technology **shall not** count towards the requirement of the Minor Programme in Computer Science and vice versa. Students are required to declare if CSC 3250 or INE 2720 which they enrol will count towards the requirement of the Minor programme in Information Technology at their final term of attendance.