REGULATIONS FOR THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION (INFORMATION SYSTEMS) (BBA[IS])

(See also General Regulations and Regulations for First Degree Curricula)

Admission to the degree

BBA(IS) 1 To be eligible for admission to the degree of Bachelor of Business Administration (Information Systems), candidates shall

(a) comply with the General Regulations;
(b) comply with the Regulations for First Degree Curricula; and
(c) satisfy all the requirements of the curriculum in accordance with the regulations that follow and the syllabuses of the degree.

Length of study

BBA(IS) 2 The curriculum shall extend over three academic years of full-time study.

Completion of the curriculum

BBA(IS) 3 To complete the curriculum, candidates

(a) shall satisfy the requirements prescribed in UG 3 of the Regulations for First Degree Curricula; and
(b) shall successfully complete not less than 198 credits of courses, in the manner as prescribed in the syllabuses.

Selection of courses

BBA(IS) 4 Candidates shall select courses in accordance with these regulations and the manner/order specified in the syllabuses before the beginning of each semester. Changes to the selection of courses may be made during the first two weeks of each semester, and such changes shall not be reflected in the transcript of the candidates. Requests for changes after the first two weeks of a semester shall not be considered, and candidates withdrawing from any course without permission after the first two weeks of a semester shall be given an F grade.

BBA(IS) 5 Candidates shall not be permitted to select a second- or third-year course for which the failed course forms a prerequisite unless permission is given by the department concerned to sit a qualifying examination in the failed course and satisfy the examiners in this.

Assessment

BBA(IS) 6 Candidates shall be assessed for each of the courses which they have registered for, and assessment may be conducted in any one or any combination of the following manners: written examinations or tests, continuous assessment of performance, laboratory work, field work, research or project reports, or in any other manner as specified in the syllabuses.

Grades

BBA(IS) 7 Grades shall be awarded in accordance with UG 5 of the Regulations for First Degree Curricula.

BBA(IS) 8 Candidates shall not be permitted to repeat courses for which they have received a pass grade for upgrading purposes.

Absence from examination

BBA(IS) 9 Failure to take the examination as scheduled will automatically result in course failure under normal circumstances. Candidates who are unable, because of illness or other acceptable reason, to be present at any examinations of a course, may apply for permission to present themselves for examination at some other time.

Failure in examination

BBA(IS) 10 Candidates who have failed a course will be required to retake the course again or to take another course as substitution in the case of failure in an elective course.

BBA(IS) 11 The maximum number of attempts for a particular course, including retakes and re-examinations, is three.

Unsatisfactory performance

BBA(IS) 12 Candidates shall be put on probation, in accordance with the arrangements of the Faculty, if their semester GPA is lower than 1.7 in any semester; and shall be recommended for discontinuation under the provisions of General Regulations G 12 if their semester GPA is lower than 1.7 for two consecutive semesters.

Award of degree

BBA(IS) 13 To be eligible for the award of the degree of BBA(IS), candidates shall have

(a) achieved a cumulative GPA of 1.7 or above;
(b) accumulated a minimum of 198 credits; and
(c) satisfied the requirements in UG 3 of the Regulations for First Degree Curricula.

Degree classification

BBA(IS) 14 The degree of Bachelor of Business Administration (Information Systems) shall be awarded in five divisions:

First Class Honours
Second Class Honours Division One
Second Class Honours Division Two
Third Class Honours
Pass

BBA(IS) 15 The classification of honours shall be determined by the Board of Examiners at its full discretion by taking into account the overall performance of the candidates and other relevant factors as appropriate.

SYLLABUSES FOR THE DEGREE OF BACHELOR OF BUSINESS ADMINISTRATION (INFORMATION SYSTEMS)

YEAR ONE

Course code	*Course title*	*Credits*
BUSI1002.	**Introduction to accounting**	6
BUSI1003.	**Introduction to management information systems***	6
BUSI1006.	**Introduction to modern business**	3
BUSI1007.	**Principles of management**	3
CBBA0001.	**Practical Chinese language course for business, economics and finance students***	3
CSIS1117.	**Computer programming**	6
CSIS1118.	**Foundations of computer science**	6
CSIS1119.	**Introduction to data structures and algorithms**	6
CSIS1120.	**Machine organization and assembly language programming**	6
CSIS1422.	**Object-oriented programming**	6
ECEN1906.	**English for academic communication for business students***	3
ECEN1907.	**Business communication***	3
ECON1001.	**Introduction to economics I**	6

YEAR TWO

Course code	*Course title*	*Credits*
BUSI0016.	**Introduction to finance *or***	6
FINA1002.	**Introduction to finance**	
BUSI0019.	**Intermediate accounting I**	6
BUSI1001.	**Business law**	6
BUSI1004.	**Marketing**	6
BUSI0052.	**Database development and management** *or*	6
CSIS0278.	**Introduction to database management systems**	
CSIS0230.	**Principles of operating systems**	6
CSIS1401.	**Software engineering process I: analysis and design**	6
CSIS0402.	**System architecture and distributed computing**	6
CSIS1421.	**Engineering mathematics**	6
ECEN1503.	**English for computer science***	3
STAT1008.	**Business statistics** *or*	6
STAT1003.	**Introductory statistics**	
xxxxx.	**Culture and value studies***	3

YEAR THREE

Course code	*Course title*	*Credits*
CSIS1411.	**Workshop training (summer)**	3
BUSI0008.	**Business cycles and strategy** *or*	6
ECON1002.	**Introduction to economics II** *or*	
ECON2114.	**Macroeconomic analysis**	
BUSI0024.	**Investments** *or*	6
FINA2802.	**Investments**	
BUSI0027.	**Management accounting I**	6
BUSI0060.	**Information systems development and project management I**	6
BUSI0061.	**Information systems development and project management II**	6
BUSI0073.	**Telecommunications and networking management** *or*	6
CSIS0234.	**Computer and communication networks**	
BUSIxxxx	**IS Electives**[1]	12
CSIS0259.	**Principles of programming languages**	6
CSIS0403.	**Software engineering process II: implementation, testing and maintenance**	6
CSISxxxx.	**SE Electives** [2]	6

Students who obtain BBA(IS) after three years of study may, if they so wish, undertake a fourth year of study, leading to the award of the degree of BEng(SE). (See also Regulations for the Degree of Bachelor of Engineering (Software Engineering) awarded in conjunction with the Degree of Bachelor of Business Administration (Information Systems), pp. xxx)

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* To fulfil the graduation requirement of this degree as specified by the Board of Studies in Business Administration (Information Systems) and Engineering (Software Engineering) in accordance with UG 3 of the Regulations for First Degree Curricula, candidates must satisfactorily complete the credits of courses with an asterisk (*) beside.

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1. Electives in Information Systems area offered by the School of Business.
2. Electives in Software Engineering area offered by the Department of Computer Science & Information Systems.

YEAR ONE

BUSI1002. Introduction to accounting (6 credits)

The course will cover the principles of double entry book-keeping, the interpretation of financial statements, the issues raised by corporate regulation, and the use of management information for decision making.

BUSI1003. Introduction to management information systems (6 credits)

The objectives of this course are to (i) examine the new opportunities and challenges brought about by technological developments, and (ii) outline effective ways information technology can be utilised in different functional areas of the business to sustain the firm’s strategic position in today’s interrelated global market.

BUSI1006. Introduction to modern business (3 credits)

This course is deliberately designed to make students aware of the mechanics and environments in which modern day business operate in global, regional and domestic markets. This course aims to help students to understand modern business operations and development in the knowledge economy. This orientation is organized around the new emerging paradigms of business configuration and the skills required of future business leaders.

BUSI1007. Principles of management (3 credits)

This introductory course traces back to how the study and practice of management evolved over this past century, with particular focus on the landmark discoveries and lessons learned. Students are also exposed to the essence of managerial work and the changing face of workplace management. The programme's pedagogical design combines the ingredients of the theoretical conceptualization and emphasizes interactive discussions, skill-building experiential exercises and it's own on-line course.

CBBA0001. Practical Chinese language course for business, economics and finance students (3 credits)

This course will cover the following topics: (1) practical Chinese writing skills (2) Chinese characters (3) letter-writing (4) office documents (5) Chinese for special purposes (6) presentation and communication techniques and (7) information technology in Chinese. Assessment: 50% coursework, 50% examination.

CSIS1117. Computer programming (6 credits)

The goal of this course is for students to learn the general principles of programming, including how to design, implement, document, test, and debug programmes.

CSIS1118. Foundations of computer science (6 credits)

Logic, sets, and functions; mathematical reasoning; counting techniques; relations; graphs; trees; modeling computation.

CSIS1119. Introduction to data structures and algorithms (6 credits)

Arrays, linked lists, trees and graphs; stacks and queues; symbol tables; priority queues, balanced trees; sorting algorithms; complexity analysis.
Prerequisite: CSIS1117 Computer programming

CSIS1120. Machine organization and assembly language programming (6 credits)

Fundamentals of computer organization and machine architecture; number, character and instruction representations; addressing modes; assembly language programming including stack manipulation and subroutine linkage; basic logic design and integrated devices; the central processing unit and its control; concepts of microprogramming, data flow and control flow; I/O devices and their controllers, interrupts and memory organization; computer arithmetic.

CSIS1422. Object-oriented programming (6 credits)

Abstract data types and classes; object-oriented programming; software reusability; error reporting; introduction to Java; programme development tools, version control; scripting languages. This course may not be taken with CSIS0396.
Prerequisite: CSIS1117 Computer programming

ECEN1906. English for academic communication for business students (3 credits)

This course looks at the communication skills in English required for successful academic life, and deals in particular with reading and writing skills. Extensive reading strategies such as skimming, scanning, browsing and web-searching will be practised to enable students to cope with the current needs to access information. In addition intensive reading activities such as vocabulary development will be included. Writing instruction will focus on accuracy at sentence and paragraph level, which will be monitored throughout the semester, while various genres such as summaries, essays and reports will be reviewed. The importance of attribution of source material will be stressed, and instruction will be given in the standard (APA) form of citations and references. Assessment: 100% coursework.

ECEN1907. Business communication (3 credits)

This course leads from ECEN1906, and this semester the main focus will be listening and speaking skills. A variety of listening activities will aim to enhance skills in this area, while some idiomatic language and extracts from a number of varieties of English will be studied to indicate some features relevant to international business communication. Speaking skills will focus on accurate and comprehensible pronunciation and presentation skills such as impromptu addresses, brief presentations and associated visual aids, and handling seminar and small group discussion. In addition, there will be a project based on investigating real business activity in Hong Kong, resulting in a written report and seminar presentation. Assessment: 100% coursework.

ECON1001. Introduction to economics I (6 credits)

(Compulsory and prerequisite for all second- and third-year courses in economics.)
An introduction to the basic concepts and principles of economics, with an emphasis on the theoretical framework of choice theory, the nature of constraints, the measure of value, the laws of demand and productivity, and the implications for resource use and employment.

YEAR TWO

BUSI0016. Introduction to finance (6 credits)

An introduction to finance with an emphasis on the decisions and issues faced by the firm. The course will also cover the interrelated topics of individuals choosing between different investment alternatives, and the functioning of capital markets in equating the supply and demand of capital. Specific areas covered include: the basics of valuation using discounted cash flows, valuation of stocks and bonds, valuation and choosing between competing projects, risk and return, the cost of capital, and financial planning and forecasting. Throughout the course, emphasis will be placed on the basic paradigms in finance including net present value, the capital asset pricing model and market efficiency. Remarks: It is advisable to take BUSI1002 Introduction to accounting prior to this course.

OR

FINA1002. Introduction to finance (6 credits)

An introduction to finance with an emphasis on the decisions and issues faced by the firm. The course will also cover the interrelated topics of individuals choosing between different investment alternatives, and the functioning of capital markets in equating the supply and demand of capital. Specific areas covered include: the basics of valuation using discounted cash flows, valuation of stocks and bonds, valuation and choosing between competing projects, risk and return, the cost of capital, and financial planning and forecasting. Throughout the course, emphasis will be placed on the basic paradigms in finance including net present value, the capital asset pricing model and market efficiency. Remarks: It is advisable to take BUSI1002 Introduction to accounting prior to this course.

BUSI0019. Intermediate accounting I (6 credits)

The course provides an in-depth knowledge of the first part of financial accounting. It covers the environment of financial accounting and the development of accounting standards; conceptual framework underlying financial accounting; statement of income and retained earnings; balance sheet; accounting and the time value of money; cash and receivables; valuation of inventories; acquisition and disposition of property, plant and equipment; depreciation and depletion; intangible assets; current liabilities and contingencies; long-term liabilities; temporary investments and long-term investments; and revenue recognition.
Prerequisite: BUSI1002 Introduction to accounting

BUSI1001. Business law (6 credits)

An introduction to the Hong Kong legal system, the fundamentals and general principles of Hong Kong law, and other legal concepts which a manager may be expected to encounter in the business environment.

BUSI1004. Marketing (6 credits)

An introductory course on the basic concepts of marketing and their implications in management. The ingredients of the Marketing Plan will be analysed and the problems involved in formulating marketing strategy; interpreting marketing data and coping with the changing market environment will be examined.

BUSI0052. Database development and management (6 credits)

This course studies the principles, design, development and administration of database management systems for business applications. Emphasis will be placed on the user/developer/administrator points of view.
Prerequisite: BUSI0059 Information systems analysis and design *or* equivalent.

OR

CSIS0278. Introduction to database management systems (6 credits)

This course studies the principles, design, administration, and implementation of database management systems. Topics include: entity-relationship model, relational model, relational algebra and calculus, database design and normalization, database query languages, indexing schemes, security, integrity, concurrency control, and contemporary topics in database management systems. This course may not be taken with BUSI0052.
Prerequisites: CSIS1117 Computer programming and CSIS1119 Introduction to data structures and algorithms; *or* ELEC1501 Computer programming and data structures

CSIS0230. Principles of operating systems (6 credits)

Operating system structures, process and thread, CPU scheduling, process synchronization, deadlocks, memory management, file systems, I/O systems and device driver, mass-storage structure and disk scheduling, network structure, distributed systems, case studies.

Prerequisites: CSIS1117 Computer programming and CSIS1120 Machine organization and assembly language programming; *or* CSIS1117 Computer programming and ELEC1613 Assembly language programming and microprocessors

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CSIS1401. Software engineering process I: analysis and design (6 credits)

This course introduces the software engineering process, and elaborates on software analysis and design. Topics in software process include: conventional software development phases; and modern software process models. Topics in analysis include: feasibility analysis and the system proposal; requirements discovery; information modeling and analysis; process modeling; and object-oriented analysis. Topics in design include: process design, input and output design, user-interface design, and object-oriented design.

Prerequisite: CSIS1117 Computer programming

CSIS0402. System architecture and distributed computing (6 credits)

This course introduces the architecture of modern systems and the concepts and principles of distributed computing. Topics include: transaction processing, client-server computing, multi-tier architectures, middleware and messaging, component technology, and distributed object computing.

Pre/Co-requisite: CSIS0396 Programming methodology and object-oriented programming *or* CSIS1422 Object-oriented programming

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CSIS1421. Engineering Mathematics (6 credits)

Linear algebra, probability and statistics, multi-variable calculus, and ordinary differential equations.

ECEN1503. English for computer science (3 credits)

The focus is on developing confidence in the use of English in written and oral forms. Topics include: questioning skills, negotiating meaning, making effective grammatical and lexical choices, producing coherent writing and making confident oral presentations. Students will engage in a substantial amount of project work.

STAT1008. Business statistics (6 credits)

The discipline of statistics is concerned with situations involving uncertainty and variability. Variability greatly affects the interpretation of data. Thus statistics form an important descriptive and analytical tool. This elementary course, which is taught without any technical mathematics, presents many standard situations of data interpretation with emphases on business examples. The statistical tests for these situations are presented. Microsoft Excel will be used to carry out some statistical analysis. Assessment: 25% coursework, 75% examination. Remarks: Only available to students in the School of Business.

OR

STAT1003. Introductory statistics (6 credits)

The discipline of statistics is concerned with situations involving uncertainty and variability. The interpretation of data is greatly affected when variability plays a role, as it usually does. Thus statistics forms an important descriptive and analytical tool of the social sciences. Candidates with a mathematical background will find this course suitable, because the language of mathematics allows the subject of statistics to be presented with economy and clarity. Assessment: 25% coursework, 75% examination.

Prerequisite: Either A-level Pure Mathematics *or* AS-level Mathematics & Statistics *or* MATH0801 *or* MATH0802 *or* MATH0901 *or* MATH0902. Students without these qualifications, but with grade C *or* better in A-level Physics, are deemed to have sufficient mathematical training to enrol in this course. Students who intend to major in either of the 3 themes "Risk Management", "Mathematical Statistics" and "Applied Statistics" should take STAT1000 *or* STAT1007 *or* STAT0601 instead of this course. Students taking *or* having taken STAT1000 *or* STAT1001 *or* STAT1006 *or* STAT1007 *or* STAT1008 *or* STAT1801 *or* STAT0601 *or* STAT0602 are not allowed to take this course.

YEAR THREE

CSIS1411. Workshop training (summer) (3 credits)

BUSI0008. Business cycles and strategy (6 credits)

A course on business cycles in a global economy and how firms devise business strategies. Topics include business expansion and contraction, hiring and layoff decisions, consumer spending, banking relationship and hedging strategies in a world of fluctuating exchange rates. Remarks: It is not available to Year I students.

OR

ECON1002. Introduction to economics II (6 credits)

Further discussion of demand and supply and multi-market equilibrium, especially in an aggregative context. An introduction to money, banking, financial markets, and open economies.

OR

ECON2114. Macroeconomic analysis (6 credits)

Economics of inflation; unemployment; income and output determination in the short run and the long run. Money, interest rates and exchange rates. Macroeconomic stabilization policies and open economy macroeconomic issues.

BUSI0024. Investments (6 credits)

A comprehensive analysis of various investment vehicles and portfolio management techniques. Topics covered: modern portfolio theory and asset pricing models, portfolio management, investment strategies, analysis of common stocks and bonds, and introduction to derivatives securities.

Prerequisite: BUSI0016 Introduction to finance *or* FINA1002 Introduction to finance

OR

FINA2802. Investments (6 credits)

A comprehensive analysis of various investment vehicles and portfolio management techniques. Topics covered: modern portfolio theory and asset pricing models, portfolio management, investment strategies, analysis of common stocks and bonds, and introduction to derivatives securities.
Prerequisite: BUSI0016 Introduction to finance *or* FINA1002 Introduction to finance

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BUSI0027. Management accounting I (6 credits)

The theory and techniques involved in serving the accounting needs of management in the decision making, control, evaluation and motivational aspects.
Prerequisite: BUSI1002 Introduction to accounting. Students who have taken BUSI0007 Budgetary planning and control are not allowed to take this course.

BUSI0060. Information systems development and project management I (6 credits)

This course examines the concepts, techniques, activities and issues for information systems development projects. Student teams will carry out structured projects for project planning and scheduling, cost estimation, risk analysis, team organization, process management and quality assurance. Use of tools and managerial techniques in support of the above activities will be introduced. Remarks: This course is available to Year III students in BBA IS Major and BBA(IS) only.

BUSI0061. Information systems development and project management II (6 credits)

This is a continuation of the course BUSI0060 Information systems development and project management I.
Prerequisite: BUSI0060 Information systems development and project management I. This course is available to Year III students in BBA IS Major and BBA(IS) only.

BUSI0073. Telecommunications and networking management (6 credits)

This course introduces the concepts and terminology of telecommunications and computing network in support of business activities including data, voice, image and communication technologies, networking and communication architectures, protocols and standards. The development of Hong Kong telecommunication infrastructure will also be discussed.
Prerequisite: BUSI0059 Information systems analysis and design *or* equivalent

OR

CSIS0234. Computer and communication networks (6 credits)

Network structure and architecture; reference models; stop and wait protocol; sliding window protocols; character and bit oriented protocols; virtual circuits and datagrams; routing; flow control; congestion control; local area networks; issues and principles of network interconnection; transport protocols, and application layer; examples of network protocols.
Prerequisite: CSIS0230 Principles of operating systems

CSIS0259. Principles of programming languages (6 credits)

Syntax and semantics specification; data types; data control and memory management; expressions, precedence and associativity of operators; control structures; comparative study of existing programming languages; advanced topics such as polymorphism, programming paradigms, exception handling and concurrency.

Prerequisites: CSIS1118 Foundations of computer science *or* CSIS1121 Discrete mathematics, CSIS1119 Introduction to data structures and algorithms, and CSIS1120 Machine organization and assembly language programming *or* ELEC1613 Assembly language programming and microprocessors

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CSIS0403. Software engineering process II: implementation, testing and maintenance (6 credits)

This course examines the theory and practice of software implementation, testing and maintenance, and their place in modern software process. Topics in implementation include: detailed design issues and implementation strategies; coding style and standards; the review process; individual software process and metrics; code instrumentation; and reuse. Also examined are the implementation aspects of contemporary approaches such as generic programming, design patterns, and multi-paradigm development. Testing covers unit and component testing; integration testing; system, performance and acceptance testing; and test documentation. Testing techniques for OO software are examined in detail. Topics in maintenance include maintenance techniques, tools and metrics; software rejuvenation; and refactoring.

Pre/Co-requisite: CSIS0396 Programming methodology and object-oriented programming *or* CSIS1422 Object-oriented programming, and CSIS1401 Software engineering process I: analysis and design *or* CSIS0297 Introduction to software engineering

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Elective courses in Information Systems area offered by the School of Business

BUSI0014. Decision support systems (6 credits)

This course studies how computer systems can be used to assist managers in making effective decisions, both structured and semi-structured, through the integrated application of model base management, knowledge base management, data base management, dialogue management and problem processing systems.

Prerequisite: BUSI1003 Introduction to management information systems *or* equivalent

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BUSI0046. Advanced information systems development (6 credits)

This course studies how emerging information technologies affect both the information systems development process and the information systems. Topics include computer-aided software engineering tools, distributed systems, electronic data interchange, and web-based technologies. Students will carry out a field study of a new technology *or* new techniques.

Prerequisites: BUSI0048 Business applications development, and BUSI0052 Database development and management *or* equivalent

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BUSI0053. Decision support and expert systems (6 credits)

This course studies a range of modern decision technologies that can aid in decision making including decision support systems, group support systems, electronic meeting systems, artificial intelligence, expert systems, genetic algorithms and neural networks. Both technical and managerial issues related to the development and implementation of information systems using the above technologies will be discussed.

Prerequisites: BUSI0048 Business applications development, and BUSI0052 Database development and management *or* equivalent

BUSI0055. Electronic commerce and virtual businesses (6 credits)

This course examines the progress of electronic commerce and focuses on the business opportunities and current technologies relevant to this emerging area of information technology. Students will learn how to set up a business on the Internet.
Prerequisites: BUSI1003 Introduction to management information systems, or CSIS1127 Introduction to information systems

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BUSI0062. Information systems management and strategy (6 credits)

This course examines issues related to managing information systems in an organization including role of the chief information officer, information planning and business strategy, and various frameworks for understanding the function of information systems in an organization.
Prerequisite: BUSI1003 Introduction to management information systems *or* equivalent

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BUSI0063. Internet applications development (6 credits)

This course studies how to develop an Internet-based business application. Resources, tools and services available on the Internet will be introduced. The JAVA programming language will be covered.
Prerequisites: BUSI0048 Business applications development, and BUSI0052 Database development and management *or* equivalent

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BUSI0065. Management and security issues on the commercial internet (6 credits)

This course studies two key issues in developing business applications on the commercial Internet: management of the web site and security of the information stored on and obtained from the site. Issues including updating, encryption and authentication will be discussed.
Prerequisite: BUSI1003 Introduction to management information systems *or* equivalent

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BUSI0066. Marketing on the commercial internet (6 credits)

This course studies the progress of the Internet, World Wide Web and related technologies for the marketing, selling and distribution of goods and services. Both technology and business marketing issues will be discussed.
Prerequisites: BUSI1004 Marketing, and BUSI1003 Introduction to management information systems *or* equivalent

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BUSI0068. Multimedia applications development (6 credits)

This course introduces the various multimedia applications and the technologies based on which these applications are developed. Technologies that enable the achieving and retrieval of text, graphics, sound and video via optional storage devices will be examined.
Prerequisites: BUSI0048 Business applications development, and BUSI0052 Database development and management *or* equivalent

BUSI0074. Telecommunications policy and business (6 credits)

This course provides an overview of recent developments of the telecommunications industries in Hong Kong and around the Asia-Pacific Region. Telecommunications infrastructure policies introduced by respective governments in the Region and the impacts of these policies on business operations will be examined.
Prerequisite: BUSI1003 Introduction to management information systems *or* equivalent

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BUSI0076. Current topics in information systems (6 credits)

Study of selected areas of information systems and information technology. Topics vary with recent developments and current interest.

Elective courses in Software Engineering area offered by the Department of Computer Science & Information Systems

CSIS0201. Fundamentals of system performance modelling (6 credits)

Concepts of system modelling; review of basic probability; probability models, forecasting models, decision analysis, probabilistic inventory models; queuing systems, simulation modelling; Markovian decision process.
Prerequisite: CSIS1118 Foundations of computer science

CSIS0319. Object-oriented and formal development methods (6 credits)

To study the theory and practices in object-oriented methods and formal methods in software engineering. Topics include object-oriented analysis and design, formal specification and design, formal approaches to software testing, verification and reliability, integration of formal and informal methods.
Pre/Co-requisite: CSIS0297 Introduction to software engineering *or* CSIS1401 Software engineering process I: analysis and design

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CSIS0406. Real-time and embedded systems (6 credits)

Topics include: specification of real-time software requirements; design, implementation, and evaluation of real-time software; analysis and verification of real-time computing system performance.
Prerequisite: CSIS0230 Principles of operating systems

CSIS0407. Scientific computing (6 credits)

This course provides an overview and covers the fundamentals of scientific and numerical computing. Topics include numerical analysis and computation, symbolic computation, scientific visualization, architectures for scientific computing, and applications of scientific computing.
Prerequisites: CSIS1117 Computer programming, and CSIS1118 Foundations of computer science

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CSIS0408. Topics in software engineering (6 credits)

Advanced topics in software engineering that are of current interests.