

BIS 1140 Microcomputer Applications

0 Credit

This course aims at training how to use various software packages for personal and business applications. Word Processing, Electronic Spreadsheet, Internet Applications, Presentation Tools are emphasized.

BIS 2180 Information Technology

3 Credits

This course is to introduce various types of information technology including system unit, I/O devices, storage devices, communications devices, software, data and information processing. Functions and their applications in businesses are discussed.

BIS 3315 Programming and Algorithms

3 Credits

Prerequisite: BIS 1140 Microcomputer Applications

This course is designed to introduce the concepts in programming based on selected programming languages. It includes essential programming tools, logics and algorithms, as well as program coding and debugging.

BIS 3340 **Computer Tools in Research** **0 credits**

Prerequisite: BIS 1140 Microcomputer Applications

This course aims at training how to use statistical software tools to conduct research including data collection, processing and presentation. Software analytical features are also examined.

BIS 3348 **Principles of Multimedia** **3 credits**

Prerequisite: BIS 1140 Microcomputer Applications

The course provides the theories and concepts of various multimedia types: still-image, sound, 2-D and 3-D animation, motion pictures. Several data compression techniques are also discussed.

BIS 3349 **Fundamentals of Computer Graphics** **3 credits**

Prerequisite: BIS 1140 Microcomputer Applications

The course provides theories and practices of computer graphics. The skills and techniques in the implementation of the design are to be developed by the use of various graphic software and programs.

BIS 3515 **Object-Oriented Concepts and Programming** **3 credits**

Prerequisites: BIS 1140 Microcomputer Applications
BIS 2180 Information Technology

This course is aimed to build the object-oriented analytical and programming skills based on object-oriented concepts, tools and programming languages. It integrates how to create the information systems modeling, and how to develop stand-alone or networked applications.

BIS 3567 **Human-Computer Interaction** **3 credits**

Prerequisites: BIS 1140 Microcomputer Applications
BIS 2180 Information Technology

This course introduces techniques and tools for the analysis, design, implementation and testing of human-computer interfaces. Special topics such as user-centered approaches to software requirements analysis, rapid prototyping and usability testing will be covered.

BIS 3587 **Principles of Electronic Commerce** **3 Credits**

Prerequisites: BIS 1140 Microcomputer Applications and
BIS 2180 Information Technology

This course introduces principles of Electronic Commerce. Emphasis is placed on how to establish electronic commerce together with its necessary mechanism. HyperText Markup Language (HTML), web-developing tools, and multimedia will be covered. The skills and techniques in the implementation of the e-commerce and multimedia concepts are imparted by hypermedia simulation project.

BIS 3588 **Digital Business Enterprise** **3 Credits**

Prerequisite: BIS 2180 Information Technology

This course provides the knowledge of information systems in both technical and managerial point of view. It describes how Information Technology creates a new infrastructure for the digital integration of a business enterprise. It also focuses on the management challenges and opportunities derived from information systems.

BIS 3589 Analysis Tools in Finance and Accounting 3 Credits

Prerequisite: BIS 1140 Microcomputer Applications

This course is designed to introduce spreadsheet software for various finance and accounting applications. Specific applications of financial statements, financial planning and analysis, capital budgeting, stock and bond valuation are also discussed.

BIS 3617 Web Design and Programming 3 Credits

Prerequisite: BIS 1140 Microcomputer Applications

This course examines the design and management of web sites for electronic business applications. Topics include aligning electronic business models with web site designs, planning a web site, programming for web site, using web development and design tools, and evaluating web site effectiveness.

BIS 3618 Selected Programming Language 3 Credits

Prerequisite: BIS 1140 Microcomputer Applications

This course is designed to introduce a programming language of particular interest. It emphasizes on the features and application of that specific language to create information systems. Program debugging is also discussed.

BIS 3625 Computer Organization and Architecture 3 credits

Prerequisite: BIS 2180 Information Technology

This course focuses on the overview of computer organization and architecture including central processing unit, system interconnection, internal and external memory, cache memory, input/output, digital logic, computer arithmetic, instruction format, instruction set, and operating system.

BIS 3635 Database Systems 3 Credits

Prerequisites: BIS 1140 Microcomputer Applications and
BIS 2180 Information Technology

The course covers various data models with the focus on relational database systems. Database design with entity-relationship diagram and normalization, database management system, query, integrity and security of database are included.

BIS 3647 Digital VDO Editing 3 credits

Prerequisite: BIS 3348 Principles of Multimedia

This course is designed to provide advanced usage of VDO editing software package as a tool to develop motion picture presentation. The knowledge of digital video, storyboard, motion effect, and audio effect are delivered.

BIS 3655 Data Communications and Networking 3 credits

Prerequisite: BIS 2180 Information Technology

This course introduces data communications and computer networks. Topics include communication devices, transmission media, various network protocols, network design, security, and management.

BIS 3666	Information Systems Analysis and Design	3 credits
Prerequisite:	BIS 3635 Database Systems	

This course provides a methodical approach by emphasizing on the strategies, tools and techniques of systems analysis and design. Topics range from studying the existing systems with DFD and conducting feasibility study to designing interfaces, databases, processes, management reports, as well as planning in deployment and maintenance.

BIS 3687	Electronic Banking and Payment Systems	3 credits
Prerequisite:	BIS 2180 Information Technology	

This course provides the understanding of financial challenges, risk, and opportunities of building electronic banking and its related businesses. Topics include evaluation of the sources of financing available for electronic business ventures, the deal structures defining financing transactions of new electronic payment system, and emerging electronic banking and payment models.

BIS 4675	Information Systems Project Management	3 credits
Prerequisite:	Senior standing (106 credits and above)	

This course introduces basic concepts of information-system project management. The understanding of how to oversee or take parts in all project activities is systematized. Project planning and modeling, budgeting, Information Technology management, and business objective realization are also covered.

BIS 4697	Current Topic in Business Information Systems	3 credits
Prerequisite:	By Consent of Instructor	

This course discusses a current topic in the field of Business Information Systems.

BIS 4698	Selected Topic in Business Information Systems	3 credits
Prerequisite:	By Consent of Instructor	

This course discusses a selected topic in the field of Business Information Systems.

BIS 4699	Advanced Topic in Business Information Systems	3 credits
Prerequisite:	By Consent of Instructor	

This course discusses a topic of advanced level in the field of Business Information Systems

BIS 4718	Web Applications Development	3 credits
Prerequisites:	BIS 3617 Web Design and Programming BIS 3635 Database Systems	

This course examines the development of web applications sites for database-driven Web Sites up and running in an organized and efficient way. Topics include database management with Web based DBMS, Application Server, using web development and design tools in developing simple and complex web applications.

BIS 4747	Graphics and Animation	3 credits
Prerequisites: BIS 3348 Principles of Multimedia BIS 3349 Fundamentals of Computer Graphics		

This course aims to introduce concepts and theories of 2-D and 3-D animation, storyboard writing. The use of sophisticated computer animation tools to create the graphics artwork is demonstrated.

BIS 4757	Local Area Network Concepts	3 credits
Prerequisite: BIS 3655 Data Communication and Networking		

This course is a comprehensive introduction to Local Area Networks including theory, concepts and installation. Significant updating in LAN Technology is discussed. This course also provides in depth knowledge on Client/Server technology, its protocol and standards.

BIS 4766	Business Process Reengineering	3 credits
Prerequisite: BIS 3666 Information Systems Analysis and Design		

This course examines the design of an organization's structure and business processes. The course primarily focuses on the application of information technologies to transform organizations and improve their performance. Methods of introducing and implementing information technologies to enable organizational change are examined.

BIS 4848	Integrated Multimedia Applications	3 credits
Prerequisites: BIS 3647 Digital VDO Editing and BIS 4747 Graphics and Animation		

This course introduces concepts, strategies and techniques of interactive multimedia, which combines various forms of multimedia items. The study is based on practical project to allow hands-on experience in integrating multimedia work pieces as "hypermedia".

BIS 4857	Internet Security	3 credits
Prerequisite: BIS 3655 Data Communications and Networking		

This course focuses on the overview of Internet security technologies including conventional encryption, public-key encryption, key exchange, message authentication, digital signature, authentication applications, electronic mail security, web security, and firewalls. The concepts of protection from intruder and malicious program are covered.

BIS 4875	Strategic Technology Management	3 credits
Prerequisite: Senior standing (106 credits and above)		

This course reveals technical foundations and the significance of information systems to management. It examines the important roles of information, people, management, and organization. Information Policies, Network-Oriented Computing, and organizational change management as well as Strategic Information System, Enterprise Resource Planning are also included to support management action and decision-making.

BIS 4878	Software Risk Management	3 credits
Prerequisite: BIS 3666 Information Systems Analysis and Design		

26 coursedescription

This course focuses on the practical techniques, concepts and methodologies of software development process. An actual development project is required to effectively impart skills including analysis and design, efficient coding, testability, modular decomposition verification, debugging, and performance analysis.

BIS 4897	Seminar in Business Information Systems	3 credits
Prerequisite:	Senior standing (106 credits and above)	

Each student will be given the responsibility of presenting papers to the class and participating in discussion of papers presented by others or guest speakers.

BIS 4898	Directed Study I	3 credits
Prerequisite:	By Consent of Instructor	

A student may carry out a research topic directed by an appointed advisor.

BIS 4899	Directed Study II	3 credits
Prerequisite:	By Consent of Instructor	

A student may continue the research topic from Directed Study I or carry out a new research topic, directed by an appointed advisor.

BIS 4996	BIS Senior Project	3 credits
Prerequisites:	BIS 3666 Information Systems Analysis and Design BIS 4675 Information Systems Project Management BIS Graduating Status	

Each student is required to design his/her own internship program to apply all the acquired knowledge in an information system development project based to a real business setting. Students must produce professional and system documentation, and defend their projects with the appointed committee.