

SUMMARY OF COURSE DESCRIPTIONS

**CY 2007-2008
CMO 53 – S.2006
Enhanced 2008**

BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

Information Technology Fundamentals – (3 Units – 2 Units-Lec/1 Unit-Lab)

This course provides an introduction to the industry of Information Technology, an overview of the IT profession, and basic computer concepts.

Computer Programming 1 - (3 Units – 2 Units-Lec/1 Unit-Lab)

This course allows the student to learn and apply the art and style of procedural programming to solve computational problems adhering to the standards and guidelines of documentation. It includes discussion on I/O statements, loop and branching instructions, and creating functions and procedures.

Computer Programming 2 – (3 Units – 2 Units – Lec/1 Unit – Lab)

This course allows the student to apply advanced techniques in procedural programming to solve computational problems adhering to the standards and guidelines of documentation. It covers the creation, manipulation and application of user-defined data structures, recursion, and file-handling techniques.

Discrete Structures – (3 Units)

This course introduces the foundations of discrete mathematics as they apply to computer science. Topics include functions, relations and sets, basic logic, proof techniques, basics of counting and introduction to digital logic and digital systems.

Computer Organization – (3 Units – 2 Units – Lec/1 Unit – Lab)

The course presents the various hardware structures (down to transistor level) that compose a computer, their individual functions, how they interact with each other, how they can be organized and controlled to perform the task assigned to the computer. How data is represented, stored and manipulated is also covered.

Professional Ethics – (3 Units)

The course introduces ethics and ethical theories; provides discussions on the ethical dilemmas and issues facing IT practitioners. An appreciation and discussion of the Code of Ethics of I.T. Professionals; cyber crimes and appropriate Philippine Laws are also included.

Accounting Principles – (3 Units)

This course is an introduction to the fields of managerial and financial accounting, focusing more on the latter. It is designed to equip Information Management students with knowledge and skills on accounting processes, systems, concepts, principles, and applications in both a manual and computer-based environment.

Operating Systems Applications – (3 Units)

This course provides an introduction to the concepts, theories and components that serve as the bases for the design of classical and modern operating systems. Topics include process and memory management, process synchronization and deadlocks.

Network Management - (3 Units – 2 Units – Lec/1 Unit – Lab)

This course introduces the concept of data communication and computer networking. Detailed discussion is based on the 7-layers of the OSI reference models.

Systems Analysis and Design - (3 Units – 2 Units – Lec/1 Unit – Lab)

This course covers the different phases of systems development focusing on analysis and design. Students will learn the rudiments of systems development through a feasibility study.

Software Engineering - (3 Units – 2 Units – Lec/1 Unit – Lab)

This course introduces the software engineering processes; its principles, techniques and practices to produce quality software products.

Technopreneurship (Capstone Project) – (3 Units)

This course covers the principles and theories of technopreneurship. Students are expected to develop and implement a feasible IT business plan.

Object-Oriented programming - (3 Units – 2 Units – Lec/1 Unit – Lab)

This course allows the student to learn and apply the basic language syntax and principles of object-oriented programming to solve computational problems adhering to the standards and guidelines of documentation.

Database Management System 1 - (3 Units – 2 Units – Lec/1 Unit – Lab)

The course covers discussion of database systems, the nature of the data, data association, data semantics and data models. A specific DBMS will be used to implement data models for use in business application programs.

Web Development - (3 Units – 2 Units – Lec/1 Unit – Lab)

This course covers various web design concepts and techniques that will allow students to design, build and create effective, interactive and dynamic web applications.

Multimedia Systems - (3 Units – 2 Units – Lec/1 Unit – Lab)

This three (3) units course equips the IT student with the skills to develop interactive multimedia applications which combine audio, video, text, animation, and still images that can be delivered from CD-ROM to LAN, from Internet to the Intranet.