

College of Computer Studies and Engineering
Lorma Colleges
City of San Fernando

Bachelor of Science in Information Technology
Course Description
SY 2008-2009

FIRST YEAR
FIRST SEMESTER

COURSE NO: ALGEBRA
DESCRIPTIVE TITLE: College Algebra
PRE REQUISITE: NONE
UNITS: 3

Course Description: A course involving the study of the real number line, algebraic operations and processes of elementary algebraic terms, and also those that involves exponents and radicals, linear equations, quadratic equations, system equations, and its applications, the binomial theorem, factoring fractions, progressions, ratio proportions and variations, the fundamental theorem of algebra, theory of equations, determinants, partial fractions permutations and combinations and complex numbers.

COURSE NO: BIBLE01
DESCRIPTIVE TITLE: Christian Foundation
PREREQUISITE: NONE
UNITS: 3

Course Description: This course is an introduction of the story of the Bible, the nature and being of God and the power of God's word in one's life with emphasis of the life, person and ministry of the Lord Jesus Christ. It also embraces biblical and Christian values that will inspire the students to live uprightly and to achieve excellent and honorable aspirations.

COURSE NO: COMFUND
DESCRIPTIVE TITLE: Computer Fundamentals
PRE REQUISITE: NONE
UNITS: 3

Course Description: In this course the students is exposed to beginning instruction and practice in their skills in developing their skills in typing and learn the different DOS commands and equip them with the skills and knowledge to successfully use Microsoft Office such as MS Word, MS Excel, MS Power Point and simple database application.

COURSE NO: COMPRO1
DESCRIPTIVE TITLE: Computer Programming 1
PRE REQUISITE: NONE
UNITS: 2/1

Course Description: Computer system, problem-solving procedures, algorithms and controls structures, data types, vectors, array and record and string manipulation. C

programming concepts, variables, operators, and expressions statements, functions, array and pointer, structure, processor.

COURSE NO: FILIP1

DESCRIPTIVE TITLE: Sining ng Pakikipagtalastasan

PRE REQUISITE: NONE

UNITS: 3

Course Description: Nilalayon ng kursong ito na maipakilala sa estudyante ang pangkalahatang saklaw ng pagtuto sa wika at komunikasyon. Nakabatay ang pananaw at prinsipyo ng kurso sa paghubog at paglinangng isang mulat na kamalayan, mula sa pag-unawa sa kalikasan ng wika at komunikasyon, hanggang sa paggamit sa mga kaalamang ito upang makabuo siya ng isang epektibong ugnayan sa kanyang kapwa at mapalawak ang kanyang pagkilalasa sarili at daigdig. Sa pamamagitan ng kursong ito, mamumulat ang estudyante na ang susi niya sa isang epektibo at dinamikong pakikipagkapwa ay nakasalalay sa kanyang masining na paglinang sa kanyang pakikinig, pagsasalita, pagbabasa, at pagsusulat.

COURSE NO: KEYBOARD

DESCRIPTIVE TITLE: Keyboarding

PRE REQUISITE: NONE

UNITS: 2

Course Description: This course covers operation of the computer keyboard and developing basic keyboarding techniques required to develop speed and accuracy on straight copy. Instruction will include the alphabetic keys, numeric keys, and special symbol keys, as well as basic word processing features, including creating and printing a document.

COURSE NO: MODCOM1

DESCRIPTIVE TITLE: Modern Communication 1

PRE REQUISITE: NONE

UNITS: 3

Course Description: This course is designed to provide students with the necessary communicative skills in English. It is also focuses on the different parts of speech and sentence patterns. Furthermore, it includes reading selections as springboard for the teaching and development of grammatical concepts.

COURSE NO: NSTP001

DESCRIPTIVE TITLE: NSTP 1

PRE REQUISITE: NONE

UNITS: 3

Course Description: The Civic Welfare Training Service (CWTS) is a component of the National Service Training Program (NSTP) is a course for first year students both males and females designed to help them understand, appreciate and eventually live by the basic concepts of the Student's Transformation and Enrichment for Truth (STET) with the end in view of empowering them into becoming a potent resource for community development.

COURSE NO: PHYSED1

DESCRIPTIVE TITLE: Physical Fitness

PRE REQUISITE: NONE

UNITS: 2

Course Description: This course include a wide variety of activities that can be used for physical fitness purposes, providing the students the fundamental understanding the basic body mechanics of gymnastics, stunts and physical fitness exercises.

COURSE NO: PRODSOF

COURSE TITLE: Productivity Software

PRE REQUISITE: NONE

UNIT: 1

Course Description: This course will train students in the use of popular productivity software tools such as word processors, spreadsheets, presentation/graphics, software, project management programs, accounting programs and the like.

**FIRST YEAR
SECOND SEMESTER**

COURSE NO: BIBLE02

DESCRIPTIVE TITLE: Christian Life and Ethics

PREREQUISITE: BIBLE01

UNITS: 3

Course Description: This course introduces the individual students in the development of dynamic Christian life and ethics that will gear to a potential and harmonious relationship with his God, his family, his community and his life.

COURSE NO: COMPRO2

DESCRIPTIVE TITLE: Computer Programming 2

PRE REQUISITE: COMPRO 1, COMFUND

UNITS: 2/1

Course Description: An introduction to the concepts of object oriented programming their semantics and implementation using C++. It also covers the programming methodology application development in C++.

COURSE NO: DATASTRU

COURSE TITLE: Data Structures

PRE REQUISITE: COMPRO1

UNITS: 3

Course Description: This workshop provides an in-depth use of the ANSI C programming language. Guidelines on structured programming methodology and tips on coding style will be enumerated throughout the workshop. Emphasis will be placed upon use of advanced I/O routines, functions, pointer operations, dynamic data structure and memory allocation techniques. In the lab sessions, participants work through several hands-on exercises and develop small projects that reinforce the topics discussed.

COURSE NO: HARDSOF

DESCRIPTIVE TITLE: Hardware and Software Fundamentals

PRE REQUISITE: COMFUND**UNITS: 2/1**

Course Description: This subject presents an in-depth exposure to computer hardware and operating systems. Students learn the functionality of hardware and software components as well as suggested best practices in maintenance, and safety issues. Through hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included.

COURSE NO: INTERNE**COURSE TITLE: Internet and Web Development (HTML)****PRE REQUISITE: COMFUND****UNITS: 2/1**

Course Description: Internet and Multimedia System is designed to study and use basic Internet technologies such as telnet, group communication tools, FTP, and the World Wide Web. And also utilizing other Internet applications such as email, newsgroups, and gopher for class projects and communication. Students will design and build their own web pages as part of a final project, incorporating basic HTML and multimedia types such as animation, audio and video. Students will also learn about the various types of multimedia applications and how to construct effective interactive multimedia messages.

COURSE NO: MODCOM2**DESCRIPTIVE TITLE: Modern Communication 2****PRE REQUISITE: MODCOM1****UNITS: 3**

Course Description: This course is designed to provide students with the necessary communicative skills in English. It is also focuses on the different parts of speech and sentence patterns. Furthermore, it includes reading selections as springboard for the teaching and development of grammatical concepts.

COURSE NO: NSTP002**DESCRIPTIVE TITLE: NSTP 2****PRE REQUISITE: NSTP01****UNITS: 3**

Course Description: The Civic Welfare Training Service (CWTS) 2 is a sequel to CWTS 2. It is designed to immerse students in activities that will arm them with the capability to contribute to the uplift of the general welfare and the quality of life for the members of the community and the enhancement of its facilities especially those that are devoted to improving the health, environment, entrepreneurship, safety, recreation and morals of the citizens.

COURSE NO: PHYSED2**DESCRIPTIVE TITLE: Rhythmic Activities****PRE REQUISITE: PHYSED1****UNITS: 2**

Course Description: The emphasis of this course is on learning on the fundamentals of the Philippine Folk Dances, Ballroom Dances and other types of dances.

COURSE NO: TRIGONO

DESCRIPTIVE TITLE: Trigonometry and Analytic Geometry

PRE REQUISITE: ALGEBRA

UNITS: 3

Course Description: This covers fundamental concepts of plane trigonometry and of plane analytic geometry. Trig functions, trig identities, solving triangles, analytic geometric proofs, conics, parametric equations.

**SECOND YEAR
FIRST SEMESTER**

COURSE NO: ACCPRIN

DESCRIPTIVE TITLE: Accounting Principles

PRE REQUISITE: ALGEBRA

UNITS: 3

Course Description: The course helps students learn how to prepare and analyze financial statements, and understand the role that accounting plays in business decisions. Topics include: stock and bond investments, cash flow reporting, financial statement analysis techniques, and manufacturing and cost accounting issues.

COURSE NO: COLPHYS1

DESCRIPTIVE TITLE: College Physics 1

PRE REQUISITE: ALGEBRA

UNITS: 2/1

Course Description: This course provides a conceptually based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied

COURSE NO: COMPRO 3

DESCRIPTIVE TITLE: Computer Programming 3

PRE REQUISITE: COMPRO 2

UNITS: 2/1

Course Description: This course covers introduction to graphical user interface (GUI), event driven programming and Windows onscreen objects such as command buttons, textboxes, option buttons, and graphics. Programming projects will require students to design interactive screens as well as code subroutines to implement programs.

COURSE NO: DISSTRU

DESCRIPTIVE TITLE: Discrete Structures

PRE REQUISITE: ALGEBRA

UNITS: 3

Course Description: This course covers logic, discrete probability, recurrence relations, Boolean algebra, sets, relations, counting, functions, maps, Big-O notation, proof techniques including induction, and proof by contradiction.

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

COURSE NO: FILIP2

DESCRIPTIVE TITLE: Pagbabasa't Pagsusulat ng iba't ibang isip

PRE REQUISITE: FILIP1

UNITS: 3

Course Description: Ang kursong Filipi2 ay nagbibigay-focus sa pagbabasa at pagsulat sa mga pangangailangang akademik at instrumento sa pagkatuto. Pag-aaralan ang mga estratehiya sa kritikal na pagbasa ng iba't ibang genre ng nakasulat (maging naririnig) na textong pang-agham pantao. Ang pagsulat ukol sa mga paksang akademik, gayundin para sa komunkasyong pampropesyonal ay malaking bahagi ng tasks.

COURSE NO: PHYSED3

DESCRIPTIVE TITLE: Individual / Dual Sports

PRE REQUISITE: PHYSED1

UNITS: 2

Course Description: This course is designed to offer undergraduate students an I-depth experience with various outdoor skills for individual and dual sports.

COURSE NO: QUALPRO

DESCRIPTIVE TITLE: Quality Process

PRE REQUISITE: NONE

UNITS: 3

Course Description: An in-depth study of the theoretical foundations of quality management along with applications of the quantitative and qualitative tools used in improving organizational quality and productivity. Coverage will include the principles promoted by major quality experts and a review of the requirements for corporate quality certification.

SECOND YEAR SECOND SEMESTER

COURSE NO: COLPHYS 2

DESCRIPTIVE TITLE: College Physics 2

PRE REQUISITE: COLPHYS1

UNITS: 2/1

Course Description: This course is designed to give non-majors in engineering an introduction to electric circuits, semiconductor devices, and microelectronic circuits. It covers the basic principles of circuit analysis, transient analysis, AC steady-state analysis, introduction to semiconductor devices and fabrication, digital logic circuits, op-amps, and A/D and D/A conversion.

COURSE NO: DBMSYS1

DESCRIPTIVE TITLE: Database Management System

PRE REQUISITE: COMPRO2

UNITS: 2/1

Course Description: This course covers the Standard Query Language, the SQL BASIC AND SQL ADVANCE. It includes the creation of tables using the Microsoft Access and the same time creation with the same time creation with the SQL Statements. It covers also the introduction to the E-R Model for the better understanding what are the different meta data that is included in the creation of database, together with the equivalent terminology between Microsoft Access and E-R model.

COURSE NO: HUMANIT

DESCRIPTIVE TITLE: Intro to Music and Art Appreciation

PRE REQUISITE: NONE

UNITS: 3

Course Description: This course aims to help students understand ways in which literature and the fine arts can deepen their sense of what it means to be human. The course gives students practice-appreciating masterpieces of painting, sculpture, architecture, music, poetry, prose narrative, theater, dance, and film.

COURSE NO: NETMGMT

DESCRIPTIVE TITLE: Network Management

PRE REQUISITE: COMPORG

UNITS: 3

Course Description: Provides students with the fundamental knowledge to install, configure, troubleshoot, and manage a network operating system, such as Microsoft Windows 2000 Advance Server and Professional, both in a peer-to-peer and client-server environment. Students implement and gain a deeper understanding of the client and server environments and reinforce their understandings of basic network protocols, technology, and terminology.

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

COURSE NO: OPERSYS

DESCRIPTIVE TITLE: Operating Systems

PRE REQUISITE: COMPORG

UNITS: 2/1

Course Description: This course is devoted to the study of the concepts that underlie Operating Systems – a field that is undergoing a change at breathtakingly rapid rate. The fundamental concepts and algorithm covered in this course are based on those used in existing commercial operating system.

COURSE NO: PHYSED4

DESCRIPTIVE TITLE: Group / Team Sports

PRE REQUISITE: PHYSED1

UNITS: 2

Course Description: This course introduces the students to the background, skills needed to play, officiating, rules and regulations and others, pertaining to Volleyball and Basketball.

COURSE NO: PROBSTA

DESCRIPTIVE TITLE: Probability and Statistics

PRE REQUISITE: ALGEBRA

UNITS: 3

Course Description: Fundamentals of probability; discrete and continuous random variables; expected value; variance; joint, marginal, and conditional distributions; conditional expectations; applications, simulations; central limit theorem, order statistics.

COURSE NO: SYSTDES

DESCRIPTIVE TITLE: System Analysis and Design

PRE REQUISITE: COMPRO2

UNITS: 3

Course Description: This course aims to clearly define the roles and purposes of a systems analyst in the growing field of data processing and thus shape students to becoming qualified entrants to the field of system analysis. To achieve major objective, this course is defined to clearly explain system design tools, system development life cycles and problems, analysis, detailed database design, and cost- benefit analysis.

**THIRD YEAR
FIRST SEMESTER**

COURSE NO: DBMSYS2

DESCRIPTIVE TITLE: Database Management System II

PRE REQUISITE: DBMSYS1

UNITS: 2/1

Course Description: This course covers the Standard Query Language, the SQL BASIC AND SQL ADVANCE. It includes the creation of tables using the Microsoft Access and the same time creation with the same time creation with the SQL Statements. It covers also the introduction to the E-R Model for the better understanding what are the different meta data that is included in the creation of database, together with the equivalent terminology between Microsoft Access and E-R model.

COURSE NO: ECONTAR

DESCRIPTIVE TITLE: Economics with TAR

PRE REQUISITE: NONE

UNITS: 3

Course Description: Analysis of the effects of taxation on economic behavior; taxation and public choice; the effects of taxation on the distribution of income; theory and empirical analysis of welfare effects of taxes; optimal tax theory; issues in tax policy and tax reform.

COURSE NO: ITELEC1

DESCRIPTIVE TITLE: ITE Elective 1

PRE REQUISITE: 3RD YEAR STANDING

UNITS: 2/1

Course Description: Provides a current and futuristic view of decision support data repositories, with several examples where data warehousing has made a significant difference. Each phase of the data warehousing process will be discussed, from understanding the business (government or industry) requirement, through design, implementation, and sustainment. Special topics will be discussed, such as the use of

data mining and multimedia data warehousing. Very basic understanding of file and database terms/concepts would be useful, but not required.

COURSE NO: JPRIZAL

DESCRIPTIVE TITLE: Life, Works and Writings of Dr. Jose Rizal

PRE REQUISITE: NONE

UNITS: 3

Course Description: The course deals with the life, works and writings of Dr. Jose Protacio Mercado Rizal. It aims to present to the students the different attribute that made him acclaimed, " Great Malayan". It presents the richness of Rizal's thought and teaching which are his living legacies to the human race. The course further aims to let the students see themselves in Rizal's life they may realize the essence of their being a Filipino and that their national consciousness be awakened and help the Philippine attain greater heights. It is within the aim of this course that these young citizens develop in themselves a perspective and horizons patterned with that of Rizal which is worth emulating.

COURSE NO: PHILLIT

DESCRIPTIVE TITLE: Philippine Literature

PRE REQUISITE: NONE

UNITS: 3

Course Description: Study of literary forms or genres as exemplified by selected literary texts from various regions of the Philippines written at different periods in Philippine literary history.

COURSE NO: SOCIETY

DESCRIPTIVE TITLE: Society and Culture with Family Planning

PRE REQUISITE: NONE

UNITS: 3

Course Description: The family as a structural and functional unit in social life and organization, as a unit of social control; its status, change, and associated problems.

COURSE NO: TECHWRI

DESCRIPTIVE TITLE: Technical Writing

PRE REQUISITE: MODCOM2

UNITS: 3

Course Description: This course covers principles and procedure of technical writing; attention to analyzing audience and purpose, organizing information, designing graphic aids, and writing such specialized forms as abstracts, instructions, and proposals.

COURSE NO: WEBDEV

DESCRIPTIVE TITLE: Web Development

PRE REQUISITE: INTERNE

UNITS: 2/1

Course Description: Web Development is a hands-on course that takes students through the development of complete web sites. Students build web sites using HTML, Dreamweaver and Flash incorporating planning, layout, design, and testing skills. Sites are published to the Internet during the course. Students also learn how to use Adobe

Photoshop and ImageReady to create, edit, and optimize images for the World Wide Web.

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

THIRD YEAR SECOND SEMESTER

COURSE NO: FRELEC1

DESCRIPTIVE TITLE: Free Elective1 (E-Commerce)

PRE REQUISITE: 3RD YEAR STANDING

UNITS: 2/1

Course Description: The E-Commerce Strategy and Practices course teaches students how to conduct business on-line and how to manage the technological issues associated with constructing an electronic-commerce Web site. Students will implement a genuine transaction-enabled business-to-consumer Web site, examine strategies and products available for building electronic-commerce sites, examine how such sites are managed, and explore how they can complement an existing business infrastructure. Students get hands-on experience implementing the technology to engage cardholders, merchants, issuers, payment gateways and other parties in electronic transactions.

COURSE NO: FRELEC2

DESCRIPTIVE TITLE: Free Elective 2 (Business Processes)

PRE REQUISITE: 3RD YEAR STANDING

UNITS: 3

Course Description: The course helps students learn how to prepare and analyze financial statements, and understand the role that accounting plays in business decisions. Topics include: stock and bond investments, cash flow reporting, financial statement analysis techniques, and manufacturing and cost accounting issues.

COURSE NO: GENPSYCH

DESCRIPTIVE TITLE: General Psychology

PRE REQUISITE: NONE

UNITS: 3

Course Description: This is an introduction to psychology course. This course is designed to provide an overview of the field of psychology and human behavior. Topics include: philosophical perspectives, history, biology, learning, personality, behavioral biology, development, motivation, emotion, abnormal behavior, theories, and therapies.

COURSE NO: ITELEC2

DESCRIPTIVE TITLE: IT Elective 2

PRE REQUISITE: 3RD YEAR STANDING

UNITS: 2/1

COURSE NO: LITWRLD

DESCRIPTIVE TITLE: Literatures of the world

PRE REQUISITE: NONE

UNITS: 3

Course Description: The continued study of literary forms or genres, exemplified this time by selected literary texts from various countries, written during different historical periods.

COURSE NO: POLIGOV

DESCRIPTIVE TITLE: Politics and Governance with New Const.

PRE REQUISITE: NONE

UNITS: 3

Course Description: POLIGOV is an introductory course in political science that aims to provide students with systematic overview of the political world, with particular attention on the Philippine experience. It introduces students to the fundamental concepts, theories and methods in the study of politics, and their proper application in the process of political analysis. The course examines the structures, processes and environment that shape contemporary power relations and have a significant bearing on the practice of politics and governance. Through the course, students learn to use analytic frameworks in understanding contemporary issues in politics and governance.

COURSE NO: PROFETH

DESCRIPTIVE TITLE: Professional Ethics

PRE REQUISITE: 3RD YEAR STANDING

UNITS: 3

Course Description: This course focuses on issues of professionalism that affect information professionals in their everyday work environment. Broad topical areas, which will be covered include professional ethics, standards of practice and professional competencies. The course will look at social trends to consider how they have an impact on "generally accepted practices" among professionals. We will also consider demographic indicators, business climate, and legal and regulatory proscription.

COURSE NO: SOFTENG

DESCRIPTIVE TITLE: Software Engineering

PRE REQUISITE: COMPRO3

UNITS: 2/1

Course Description: This course covers the various software engineering techniques, methods and tools, which can be used in the implementation of strategic systems development. It also covers project planning, software requirements, design concepts and principles, implementation, testing, delivery and maintenance.

SUMMER

COURSE NO: FRELEC3

DESCRIPTIVE TITLE: Free Elective 3

PRE REQUISITE: 4RD YEAR STANDING

UNITS: 2/1

Course Description: This course introduces a new programming environment to the students. It covers OOP concepts and implementation, language basics and common Java Applets. It also covers GUI programming and Applets.

COURSE NO: FRELEC4
DESCRIPTIVE TITLE: Free Elective 4
PRE REQUISITE: 3RD YEAR STANDING
UNITS: 3

**FOURTH YEAR
FIRST SEMESTER**

COURSE NO: CAPSPRO
DESCRIPTIVE TITLE: Capstone Project (Technopreneurship)
PRE REQUISITE: 4TH YEAR STANDING
UNITS: 2/1

Course Description: The capstone project/research course allows students to apply the knowledge and skills acquired in their courses to their school or district environment. This project is completely individualized; students are encouraged to select projects that are of particular interest to them and that will result in professional growth and benefit their school or district.

Capstone course which focuses on the analysis of marketing opportunities, development of marketing strategies, shaping of marketing offerings, and the management and delivery of marketing programs.

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

COURSE NO: ITELEC3
DESCRIPTIVE TITLE: ITE ELECTIVE 3
PRE REQUISITE: 4TH YEAR STANDING
UNITS: 2/1

Course Description: Provides a current and futuristic view of decision support data repositories, with several examples where data warehousing has made a significant difference. Each phase of the data warehousing process will be discussed, from understanding the business (government or industry) requirement, through design, implementation, and sustainment. Special topics will be discussed, such as the use of data mining and multimedia data warehousing. Very basic understanding of file and database terms/concepts would be useful, but not required.

COURSE NO: ITELEC4
DESCRIPTIVE TITLE: IT Elective 4
PRE REQUISITE: 4TH YEAR STANDING
UNITS: 2/1

Course Description: This course equips the students with fundamental concepts and techniques of expert systems. Skills in utilizing expert system shells to design expert systems for business related application are also practiced. This course covers topics of expert systems methodology including knowledge engineering, knowledge representation, inference, conflict, resolution, languages, and tools.

COURSE NO: FLDTRIP

DESCRIPTIVE TITLE: Field Trips and Seminars

PRE REQUISITE: 4TH YEAR STANDING

UNITS: 1

Course Description: Topics offered at the graduate level, which are not covered in regular courses. Students participate in preparing and presenting discussion material.

**FOURTH YEAR
SECOND SEMESTER**

COURSE NO: PRACTICUM

DESCRIPTIVE TITLE: Practicum (720 hrs)

PREREQUISITE: 4TH YEAR STANDING

UNITS: 12

Course Description: The field practicum is a central learning experience in the Bachelor of Science in Information Management. Students have the opportunity to apply knowledge gain from the previous academic years in the actual field under the supervision of an experienced professional and the practicum coordinator.

Practicum in the curriculum is "Industry Immersion" where a student will have to fit into a real office scenario and what he could contribute to the work place as Junior IT professional.

The student works in an office/agency/institution at the best with its information systems for 320 to gain practical training in one of the varied aspects of information and computer technology.