

BACHELOR OF SCIENCE IN CYBERSECURITY (BSC)

Course Descriptions For 2020-2021 Curriculum

SCHOOL OF COMPUTING COMMON PROFESSIONAL COURSES

6CFUN: Computing Fundamentals

Units: Lec: 3 Lab: 0 Pre-requisite: None

This course provides an overview of the Computing Industry and Computing profession, including Research and Applications in different fields; an Appreciation of Computing in different fields such as Biology, Sociology, Environment and Gaming; an Understanding of ACM Requirements; an Appreciation of the history of computing and Knowledge of the Key Components of Computer Systems (Organization and Architecture), Malware, Computer Security, Internet and Internet protocols, HTML4/5 and CSS. The course will also provide an overview of the concepts and challenges of the transformational digital economy when people, process, data, and things connect.

6COMPRO1L: Computer Programming 1

Units: Lec: 2 Lab: 1 Pre-requisite: None

This is an introductory course in programming which aims to develop skills and concepts that are essential to good programming practice and problem solving. It covers fundamental programming concepts of primitive data types, simple input/output, conditional statements, iterative structures and functions. This course serves as preparation for intermediate programming.

6COMPRO2L: Computer Programming 2

Units: Lec: 3 Lab: 0 Pre-requisite: 6COMPRO1L

This course introduces students to problem solving using a general-purpose programming language. The emphasis is to train students to design, implement, test, and debug programs intended to solve computing problems using basic data structures and standard libraries.

6DMS: Discrete Mathematics and Structures

Units: Lec: 3 Lab: 0 Pre-requisite: 2MATHWORLD

This course introduces the foundations of discrete mathematics in the following areas: Mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, applications, and modelling to Computer Science. Learn and understand mathematical reasoning to read, comprehend and construct mathematical arguments in propositional and predicate logic.

6DSALGO: Data Structures and Algorithms

Units: Lec: 2 Lab: 1 Pre-requisite: 6COMPRO2L

This course covers all the basics of programming in the C++ programming language as well as the fundamental concepts and techniques used in object-oriented programming. The course

starts with some universal basics, without relying on object concepts, and gradually extends to the advanced issues the student will encounter when using the objective approach.

6HCI: Human Computer Interaction

Units: Lec: 0 Lab: 3

Pre-requisite: 6CFUN

The course intends to introduce students to the discipline concerned with the design, evaluation & implementation of various computing systems intended for human use. Emphasis will be placed on understanding human behavior with interactive objects, knowing how to develop and evaluate interactive software using a human-centered approach, and general knowledge of HCI design issues with multiple types of interactive applications.

6INFOMAN: Information Management

Units: Lec: 2 Lab: 1

Pre-requisite: 6DSALGO

The course will provide the student with an understanding of the principles of Database Management Systems (DBMSs) successfully, one has to understand the concepts on which they are based. The aims of this course are to familiarize you with the basic concepts underlying a DBMS, show how they are realized in specific systems such as the SQL DBMS, give you some hands-on experience in using a DBMS.

6OOPLANG: Object-Oriented Programming

Units: Lec: 0 Lab: 3

Pre-requisite: COMPRO2L

This course explores an in-depth and extensive object-oriented problem-solving approach applying in actual programs. It also focuses on object-oriented design used as a tool for building applications implemented in command-line and graphical user interface (GUI) environments. It will also incorporate logical classes, objects, methods, relationships, and other processes with the design of software and applications. The course also introduces the basic concept and practices in creating event-driven programming.

6DSANALGO: Design and Analysis of Algorithms

Units: Lec: 3 Lab: 0

Pre-requisite: 6DSALGO

This course introduces the basic algorithmic analysis and strategies. It focuses on the principles of algorithms, its design and analysis. Fundamental ideas of algorithm analysis and design strategies will be covered. Throughout the course, different algorithm design strategies will be presented. Students are expected to know how to specify algorithm and apply design strategies to any computing problems

6CNA: Campus Network Architecture

Units: Lec: 2 Lab: 1

Pre-requisite: 6CFUN

The course presents an overview of the campus network architecture and includes descriptions of various design considerations, topologies, technologies relevant to the design of a full-service campus switching architecture. It introduces students to the key architectural components and services that are necessary to deploy a service-rich campus network. The principles and structure of addressing and the fundamentals of Ethernet concept, media, and operations are introduced to provide a foundation. By the end of this course, students will be able to build

simple campus LAN architecture, implement IP addressing and configure routers and switches to perform basic routing and switching services such as virtual LANs and inter-VLAN routing.

6OPSYFUN: Operating Systems Fundamentals

Units: Lec: 3 Lab: 0

Pre-requisite: 6CFUN

Through this course, students will be introduced to what operating systems are, what they do, how they do it, how their performance can be evaluated, and how they compare with each other. It describes the overall function of an operating system. The course will cover introduction to operating systems and the major components of most operating systems with emphasis on the four major OS subsystems: Memory Management, Processor Management, Device Management and File Management.

6ADVANRS: Advanced Routing and Switching

Units: Lec: 2 Lab: 1

Pre-requisite: 6CNA

The course focuses on the advance routing and switching services and operations of routers and switches. The students are expected to learn different approaches in the application of Static and Dynamic routing protocols, use advance security features of routers and switches in packet forwarding within and outside the network, and apply advanced IP addressing services.

6DWEBTOOLS: Dynamic Web Application and Development Tools

Units: Lec: 0 Lab: 3

Pre-requisite: 6WEBTECHL

This course will explore and utilize emerging tools and trends in Website Development and design and their applicability to employment. Students explore the prevailing tools and standards used in the field, learn how the various facets including Pre-processors tools like SASS, LESS, Stylus, Cloud Repository and WordPress Applications and will learn about web tools standard that is being used by the industry and why they are important.

6WEBTECHL: Web Technologies Laboratory

Units: Lec: 0 Lab: 3

Pre-requisite: 6COMPRO1L

This course is designed to provide a thorough working knowledge in defining content of web pages using Hypertext Markup Language 5 (HTML 5) integrated with creative layout using CSS3 (Cascading Style Sheet 3). Moreover, students are able to learn managing the behaviors of web pages through the use of client side which is JavaScript and PHP. Students will also learn the basic web frameworks such jQuery, Bootstrap and CMS. The course will also focus in recommended practices in utilizing and creating elements or widgets considering accessibility feature in terms of target audience. Generally, the subject will develop the practical skills in developing static and dynamic web pages for a specific target.

6WANTECH: Wide Area Network Technologies

Units: Lec: 2 Lab: 1

Pre-requisite: 6ADVANRS

This course discusses the WAN technologies and network services required by converged applications in a complex network. It enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to

configure and troubleshoot network devices and resolve common issues with data link protocols (WAN protocols).

6NSECURE: Network Security Implementation

Units: Lec: 0 Lab: 3

Pre-requisite: 6ADVANRS

This course is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop special skills to advance their careers. The course helps prepare students for entry-level security career opportunities. Provides a next step to enhance their networking skill set and help meet the growing demand for network security professionals. The curriculum provides an introduction security concepts and skills needed for the installation, troubleshooting and monitoring of network devices to maintain the integrity, confidentiality of data and devices.

CORE CYBERSECURITY COURSES:

6ICYBER: Introduction to Cyber Security & Emerging Technology & Threats to Cyber Security

Units: Lec:3 Lab:0

Pre-requisite: 6CFUN

This course helps the learner to have deeper understanding of modern information and system protection technology and methods. These includes An in-depth understanding of the different types of cyberattacks, threats and different technology to use to do the attack and how to mitigate those attacks focusing on the systems that are most at risk, and the importance of an organization-wide approach to cybersecurity.

6INFOR: Introduction to Network Forensics

Units: Lec:3 Lab:0

Pre-requisite: 6ICYBER

This class is an introduction to the concepts of forensic science of gathering digital evidence in network intrusion and information security. Based on current best practices, the course includes performance indicators and means that will help those who take it increase their operational skills of tackling cyber incidents. It focusses on the examination of techniques and tools used to investigate, search, collect, analyze, and report on network-based breaches and events.

6IOT: Internet of Things

Units: Lec:0 Lab:3

Pre-requisite: None

This specialized course is designed to clear your concepts in embedded systems & IoT using complete practical approach. You will develop various interesting & innovative projects, hardware and software components including design considerations, constraints and interfacing between the physical world and embedded devices.

6SERVERSEC1: Server Administration and Security 1

Units: Lec:0 Lab:3

Pre-requisite: 6ICYBER

This course explores the design and building of Windows Server system in an enterprise environment. It explores everything from Windows Server installation to configuring users, to hardening the server operating system itself, providing overview of how Windows operates in an enterprise environment and what it may look like in the real world. The course will teach student how Windows users interact with the system and demonstrate how Windows authentication works, differentiate between different authorization mechanisms and use different technologies to secure data within the environment. Test built-in security features of Windows and demonstrates how to use each technology effectively and in what circumstances you would use what technology for what purpose.

6CLOUDSEC Cloud Computing for Cybersecurity

Units: Lec:0 Lab:3

Pre-requisite: 6ICYBER

The course introduces students to cloud computing concepts of how and why cloud systems work, as well as the different cloud technologies and services. The course exposes students to different views of understanding cloud computing such as theoretical, technical and commercial aspects. The course utilizes AWS Academy curriculum designed to help students develop technical expertise in cloud computing and prepare them for the AWS Certified Solutions Architect Associate certification exam. The course covers technical essentials which are AWS foundational services and architecting on AWS which covers the fundamentals of building IT infrastructure.

6SHSEC: Software and Hardware Security

Units: Lec:0 Lab:3

Pre-requisite: 6IOT

In this course, students will study security and trust from the software and hardware perspective. students will understand the vulnerabilities in current digital system design flow and the physical attacks to these systems They will learn that security starts from hardware design and be familiar with the tools and skills to build secure and trusted hardware and consider important software vulnerabilities and attacks -- such as buffer overflows, SQL injection, and session hijacking -- and the defenses that prevent or mitigate these attacks, including advanced testing and program analysis techniques.

6SERVERSEC2: Server Administration and Security 2

Units: Lec:0 Lab:3

Pre-requisite: 6SERVERSEC1

This course is designed to provide students with the necessary skills and abilities to work with Linux Server. The course covers how to administer, configure and upgrade Linux systems, security hardening and classify different technologies to secure Linux and differentiate access control methods for Linux applications. Running one of the three major Linux distribution families: Red Hat, SUSE, Debian / Ubuntu, how to master the tools and concepts needed to efficiently build and manage an enterprise Linux infrastructure, covering the use state-of-the-art system administration techniques in real-life scenarios via practical labs.

6CYBERPOLICY: Cybersecurity and Privacy: Law, Policies, and Compliance

Units: Lec:3 Lab:0

Pre-requisite: None

This course covers the understanding of cybersecurity policies that offers a comprehensive view of information security policies applied in the business context and examine the law and policy of foreign and domestic Internet governance, computer crime, online privacy and personal data protection, private infrastructure and the law of emergencies, and emerging compliance frameworks for cybersecurity. Study the legal, policy and compliance challenges raised by efforts to protect the Internet and other forms of networked computer systems. Topics covered include threats to cybersecurity including mismanagement, crime, terrorism and war, the computer fraud and abuse act, international and local privacy law, and compliance frameworks for cybersecurity.

6ACLOUD: Advance Cloud Computing for Cybersecurity

Units: Lec:0 Lab:3

Pre-requisite: 6CLOUDSEC

This course will introduce industry best practices for cloud security and learn how to architect and configure security-related features in a cloud platform. Students will gain the knowledge and skills necessary to identify potential security issues in the cloud environment and hands-on experience with tools and techniques that monitor the environment and aid in preventing security breaches, such as monitoring logs and implementing appropriate security policies, among other things. The learner will get knowledge of how to create access control and data encryption mechanisms. A deep dive into technical knowledge and the use of existing security services to address the enterprise cloud infrastructure's security demands.

6CRYPTOGRAPHY: Applied Cryptography

Units: Lec:3 Lab:0

Pre-requisite: None

This course covers fundamentals of protecting confidentiality, integrity and availability of information in computer systems through application of cryptographic concepts and methods. It provides a comprehensive survey of modern cryptography which includes techniques of enciphering and deciphering messages using cryptographic algorithms, block ciphers and block cipher modes, hash functions and message authentication codes, public key cryptography and digital signatures, and steganography.

6ETHACKING: Ethical Hacking and Countermeasures

Units: Lec:3 Lab:0

Pre-requisite: 6CLOUDSEC

This course develops problem solving skills of IT security professionals in detecting weaknesses of network infrastructures from a hacker's perspective. Students learn how perimeter defenses work; identify types of attacks and apply tools, techniques and methods to counter hacking and malicious activities. Major topics will include the different attack scenarios and countermeasures, including penetration, social engineering, session and physical attacks. Legal and policy considerations in ethical hacking will be introduced, and appropriate incident response will be covered for these attack scenarios.

6CYBERCAP1: Capstone for Cybersecurity 1

Units: Lec:3 Lab:0

Pre-requisite: 4th year standing

Capstone Project 1, it deals with principles of research as applied to information technology, types of researches, methodologies, research formats, technical writing styles and writing research proposals. Students begin in conceptualizing a problem to be developed as a proposal and must pass the oral defense.

6CYBERCAP2: Capstone for Cybersecurity 2

Units: Lec:3 Lab:0

Pre-requisite: 6CYBERCAP1

For Capstone Project 2, the approved and defended thesis proposal will be developed into a thesis and must pass the oral defense.

6OJT: On-the-Job Training

Course Credit: 6

Pre-requisite: 4thYear Standing, Permission of Dean or Program Chair

This course exposes students to a real workplace where they can explore and apply the theories and skills gained from school. This course also provides them additional knowledge, skills and experiences in preparation for a real-life job after graduation.

MATH AND SCIENCE COURSES:

2ANAGEOM: Analytic Geometry

Units: Lec: 3 Lab: 0

Pre-requisite: 2MATHMWORLD

The course offers the integration of geometric and algebra concepts. With a proper exposure to basic calculus concepts, teachers will gain more confidence in helping and guiding their students' development of competitive skill in today's highly technological society. The discipline of learning a calculus -based course allows students to acquire higher order thinking skills.

2LINALGEB: Linear Algebra

Units: Lec: 3 Lab: 0

Pre-requisite: 2MATMWORLD

The course determinants, linear spaces, systems of linear equations, linear functions of a vector argument, coordinate transformations, the canonical form of the matrix of a linear operator, bilinear and quadratic forms, Euclidean spaces, unitary spaces, quadratic form in Euclidean and 7PE1

2PROBSTAT: Probability and Statistics

Units: Lec: 3 Lab: 0

Pre-requisite: 2MATHMWORLD

The course covers the definition, history and uses of statistics, collection of data and presentation of the data gathered. It also covers measures of central location and variability, probability, and statistical inferences such as normal distribution hypothesis testing, simple regression, simple correlation, analysis of variance and chi-square distribution.

2CALCULUS: Calculus

Units: Lec: 3 Lab: 0

Pre-requisite: 2MATMWORLD

The course provides students with experiences on solving problem that require the interpretation of algebra and geometric concepts and the fundamental concepts of Differential and integral Calculus. Specifically, this course tackles the study of rectangular and polar coordinates, graphs of functions and equations of different degrees. It also deals with differentiation of algebraic function and anti-derivatives, techniques of integration and definite integrals. The course discusses the topics from graphical, numerical and analytical standpoint. Ergo, the students are expected to be self-regulated learners.

9CBPHYSICS: Calculus-Based Physics

Units: Lec: 3 Lab: 0

Pre-requisite: 2CALCULUS

The course covers the study of mechanics, waves, sound, and heat.

9CBPHYSICSL: Calculus-Based Physics Laboratory

Units: Lec: 1 Lab: 1

Pre-requisite: 2CALCULUS

Co-Requisite: 9CBPHYSICS

This course is designed for students in the College of Information and Communications Technology taking up the fundamental concepts of Physics. This course studies the conceptual foundations of Newtonian mechanics and their relevant consequences. A good facility in basic mathematics is needed to understand the discussions and to solve problems

GENERAL EDUCATION COURSES:

2MATHWORLD: Mathematics in the Modern World

Units: Lec: 3 Lab: 0

Pre-requisite: None

This course deals with nature of mathematics, appreciation of its practical, intellectual, and aesthetic dimensions, and application of mathematical tools in daily life. The course begins with an introduction to the nature of mathematics as an exploration of patterns (in nature and the environment) and as an application of inductive and deductive reasoning. By exploring these topics, students are encouraged to go beyond the typical understanding of mathematics as merely a set of formulas but as a source of aesthetics in patterns of nature, for example, and a rich language in itself (and of science) governed by logic and reasoning. The course then proceeds to survey ways in which mathematics provides a tool for understanding and dealing with various aspects of present-day living, such as managing personal finances, making social choices, appreciating geometric designs, understanding codes used in data transmission and security, and dividing limited resources fairly. These aspects will provide opportunities for actually doing mathematics in a broad range of exercises that bring out the various dimensions of mathematics as a way of knowing and test the students' understanding and capacity. (CMO No, 20, series of 2013).

4FYE1: Big History: Big Bang to the Future

Units: Lec: 3 Lab: 0

Pre-requisite: None

Big History is an interdisciplinary course that deals with the students' journey through time and space with the Catholic intellectual tradition as an integral component of the course. It describes Big History in the context of God's continuing work of creation. It discusses the first moments of the universe and the formation of stars and planets; the early life on earth and the development

of human civilization and consciousness. Included in the course is the rise of humankind until the peering over the threshold of the present and into future.

9STS: Science, Technology and Society

Units: Lec: 3 Lab: 0

Pre-requisite: None

The course deals with interactions between science and technology and social, cultural, political, and economic contexts that shape and are shaped by them. CMO No. 20, series of 2013). This interdisciplinary course engages students to confront the realities brought about by science and technology in society. Such realities pervade the personal, the public, and the global aspects of our living and are integral to human development. Scientific knowledge and technological development happen in the context of society with all its socio-political, cultural, economic, and philosophical underpinnings at play. This course seeks to instill reflective knowledge in the students that they are able to live the good life and display ethical decision making in the face of scientific and technological advancement. This course includes mandatory topics on climate change and environmental awareness.

THEOLOGY 101: Theological Foundations: Judeo-Christian Tradition and Sacred Scriptures

Units: Lec: 3 Lab: 0

Pre-requisite None

This foundational course in theology is designed to equip the students with the basic knowledge in the study of Judeo-Christian Tradition and Sacred Scriptures based on the Second Vatican Council, which are fundamental foundations in the Catholic Faith. The subject is geared towards a deeper understanding and appreciation of Catholic Faith that is socially and contemporarily relevant.

4FYE2 Big History: Through the Lens of Big History

Units: Lec: 3 Lab: 0

Pre-requisite: 4FYE1

This is an interdisciplinary course that explores the theories, concepts and approaches of various disciplines through the lens of Big History. Students grasp an appreciation of the disciplines utilizing Big History as a framework.

THEOLOGY 102: Special Issues in Catholic Theology

Units: Lec: 3 Lab: 0

Pre-requisite: THEOLOGY101

This course is designed to address special issues that confront college students today in relation to their faith as Christians in discerning the Signs of the Times. It explores variety of moral issues that impact the individual, the family, and the community. The course enables the students to clarify their values and eventually pursue objective moral values amidst the issues that they meet head-on.

1PURCOMM Purposive Communication

Units: Lec: 3 Lab: 0

Pre-requisite: None

The five skills of communication (listening, speaking, reading, writing and viewing) are studied and simulated in advanced academic settings. The purpose of these combined activities is to enable students to practice strategies of communication with a clear purpose and audience in mind, guided by the criteria of effective communication and the appropriate language. Further, the description highlights conversing intelligently, reporting on group work and/or assignments,

writing and delivering a formal speech, writing minutes of the meetings and similar documents, preparing a research or technical paper, and making audio-visual or web-based presentations. At the end of the course, students should be able to listen, comprehend, critique and respond to live or recorded conversations, speak in public with confidence, explain extended texts in their own words using examples and other aids to bolster their explanation, while texts ranging from a simple report to a full-length technical or research paper and prepare an audio visual or web-based presentation on an assigned topic.

4READPHILHIS: Readings in Philippine History

Units: Lec: 3 Lab: 0

Pre-requisite: None

The course analyses Philippine history from multiple perspectives through the lens of selected primary sources coming from various disciplines and of different genres. Students are given opportunities to analyse the author's background and main arguments, compare different points of view, identify biases and examine the evidences presented in the document. The discussions will tackle traditional topics in history and other interdisciplinary themes that will deepen and broaden their understanding of Philippine political, economic, cultural, social, scientific and religious history. Priority is given to primary materials that could help students develop their analytical and communication skills. The end goal is to develop the historical and critical consciousness of the students so that they will become versatile, articulate broad-minded, morally upright and responsible citizens.

THEOLOGY 103: Christian Spirituality in the Contemporary World

Units: Lec: 3 Lab: 0

Pre-requisite: THEOLOGY102

This course engages students to reflect on their personal and religious experiences to discern the call of transformation and integration vis-à-vis Christian tradition and world realities through the development of the basic skill of theological reflection. With Jesus Christ as model, the students are invited to explore the relevance of their personal spiritual journey and reflect deeply on the ways on how they can live a socially relevant Christian spiritual life.

4ETHICS: Ethics

Units: Lec: 3 Lab: 0

Pre-requisite: None

Ethics deals with principles of ethical behavior in modern society at the level of the person, society, and in interaction with the environment and other shared resources. (CMO 20 s 2013). Morality pertains to the standards of right and wrong that an individual originally picks up from the community. The course discusses the context and principles of ethical behavior in modern society at the level of individual, society, and in interaction with the environment and other shared resources. The course also teaches students to make moral decisions by using dominant moral frameworks and by applying a seven-step moral reasoning model to analyze and solve moral dilemmas. The course is organized according to the three (3) main elements of the moral experience: (a) agent, including context — cultural, communal, and environmental; (b) the act, and (c) reason or framework (for the act).

4ARTAPP: Art Appreciation

Units: Lec: 3 Lab: 0

Pre-requisite: None

Art Appreciation is a three-unit course that develops students' ability to appreciate, analyse, and critique works of art. Through interdisciplinary and multimodal approaches, this course equips students with a broad knowledge of the practical, historical, philosophical and social relevance

of the arts in order to hone students' ability to articulate their understanding of the arts. The course also develops students' competency in researching and curating art as well as conceptualizing, mounting and evaluating art productions. The course aims to develop students' genuine appreciation for Philippine arts by providing them opportunities to explore the diversity and richness and rootedness in Filipino culture.

4CONWORLD: The Contemporary World

Units: Lec: 3 Lab: 0 Pre-requisite: None

This course introduces students to the contemporary world by examining the multifaceted phenomenon of globalization. Using the various disciplines of the social sciences, it examines the economic, social, political, technological and other transformations that have created an increasing awareness of the interconnectedness of peoples and places around the globe. To this end, the course provides an overview of various debates in global governance, development and sustainability. Beyond exposing the student to the world outside the Philippines, it seeks to inculcate a sense of global citizenship and global ethical responsibility. This course includes mandatory topics on population education in the context of population and demography.

4UNDERSELF: Understanding the Self

Units: Lec: 3 Lab: 0 Pre-requisite: None

This course is intended to facilitate the exploration of the issues and concerns regarding self and identity to arrive at a better understanding of one's self. It strives to meet this goal by stressing the integration of the personal with the academic— contextualizing matters discussed in the classroom and in the everyday experiences of students—making for better learning, generating a new appreciation for the learning process, and developing a more critical and reflective attitude while enabling them to manage and improve their selves to attain a better quality of life.

4RIZAL: Life and Works of Rizal

Units: Lec: 3 Lab: 0 Pre-requisite: None

As mandated by Republic Act 1425, this course covers the life and works of the country's national hero, Jose Rizal. Among the topics covered are Rizal's biography and his writing, particularly the novels *Noli Me Tangere* and *El Filibusterismo*, some of his essays, and various correspondences

1LIT12: Great Books

Units: Lec: 3 Lab: 0 Pre-requisite: None

The course explores and studies the great ideas contained in the original works by the greatest literary writers, chronologically, beginning with the works of the Ancient Greeks, which are seminal to classical and Western civilization. It also equips students with the timeless insights of contemporary writers, insights that are at the heart of liberal education. The students will enhance their communication skills by reading, appreciating, and critiquing literary works. Moreover, they will understand deeper human behavior by delving into the psyche of writers and characters.

NSTP1: (Literacy Training Service 1/Civic Welfare Training Service1/ROTC1)

Units: Lec: 3 Lab: 0 Pre-requisite: None

The Literacy Training Service I (LTS1), Civic Welfare Training Service (CWTS1) and Reserved Officer Training Course (ROTC1) are components of the university NSTP1 Program that aim to prepare students for NSTP2 or application phase by providing them the basic concepts and theories needed for doing community work. This involves introduction on concepts on self in relation to community and basics of community development theories, practices and processes. For LTS1, same concepts are taught, additional inputs are given on the learning continuum, how to prepare lesson plan and conduct tutorials.

NSTP2: (Literacy Training Service 2/Civic Welfare Training Service2/ROTC2)

Units: Lec: 3 Lab: 0

Pre-requisite: NSTP1

The program involves the implementation of identified project based on community diagnosis such as mural painting, set up library, advocacy/seminar on health, child rights, waste management, disaster management and other issues, facility improvement, sport among others.

7PE 1: Self Testing Activities

Units: Lec: 2 Lab: 0

Pre-requisite: None

The course deals with the concept of Physical Education with emphasis on the components of Physical fitness and phases of gymnastics. It also includes the level of aerobic exercise and forms of movement education.

7PE 2: Fitness Exercises

Units: Lec: 2 Lab: 0

Pre-requisite: 7PE1

This course provides experiences in core stability, strength, and mobility training. It includes goal setting exercise progression and regression and periodic assessments for the development of various fitness components.

7PE 3: Physical Activities towards Health and Fitness 1

Units: Lec: 2 Lab: 0

Pre-requisite: 7PE2

This course will provide physical activities for the purpose of optimizing health and fitness. Students will choose from a menu of course offerings in Dance, Sports and Outdoor and Adventure Activities

7PE 4: Physical Activities towards Health and Fitness 2

Units: Lec: 2 Lab: 0

Pre-requisite: 7PE3

This course will provide physical activities for the purpose of optimizing health and fitness. Students will choose from a menu of course offerings in Dance, Sports and Outdoor and Adventure Activities.