

# KNOWLEDGE AND SKILLS YOU WILL GAIN

## Graduates will:

1. Demonstrate technical competence in the performance of clinical laboratory tests in aid of diagnosis, treatment, and management of diseases vis-à-vis biosafety and waste management;
2. Demonstrate analytical and critical thinking skills in the workplace;
3. Engage in the collection, analysis, and projection of health information for improving the health care management system
4. Demonstrate inter-personal skills, leadership qualities, and ethical practice of the profession
5. Apply research skills in relevant areas of Medical Technology/Medical Laboratory Science practice
6. Participate in community-oriented activities
7. Engage in life-long learning activities
8. Demonstrate effective communication skills

## COURSES

### LANGUAGE AND HUMANITIES

#### Eng 1 COMMUNICATION SKILLS 1

(one Semester, 3 hours lecture per week, 3 units)

This course provides the student with an intensive review of basic grammar and composition focusing on the four communication skills namely; listening, speaking, and writing. It seeks to develop the students' skills in communicating ideas in both oral and written forms. It includes the introduction of the preparation of term paper writing.

#### Eng 2 COMMUNICATION SKILLS 2

(one Semester, 3 hours lecture per week, 3 units)

This course deals with reinforcement of the learners' communicative skills through a thorough functional approach to grammar with particular stress on the mystery of sentence effectiveness. To serve the students writing needs, provisions for practice in the theories and principles of organizing and developing skills in writing the narrative, expository, and descriptive paragraph and composition are given. Shaping the outline, the practice, the paraphrase, and the abstract are stressed.

#### Eng 3 SPEECH AND ORAL COMMUNICATION

(one Semester, 3 hours lecture per week, 3 units)

This course deals with principle and skills in oral communication. It is geared towards the use of voice as a basic approach to self-expression and communication. The emphasis is on the quality and effectiveness of the students oral communication and the development of their skills in creating effective messages.

#### PhilLit PHILIPPINE LITERATURE

(one semester, 3 hours lecture per week, 3 units)

This course deals with the literature of the Filipinos written during the Pre-Spanish period up to the present with emphasis on the contemporary writers (both Filipino and English) their works, and their contribution to the literary heritage, as well as to its dynamism. It also evaluates the place of Filipino writers in the International setting.

#### Filipino 1 SINING NG PAKIKIPAGTALASTASAN

(one semester, 3 hours lecture per week, 3 units)

Tinalakay sa kursong ito ang sining ng pakikipagtalastasan gaya ng paggamit ng wika sa makabuluhan, praktikal at malaganap na paraan sa araw-araw na pamumuhay. Bikod sa mapauunlad ang kasanayan sa pagsasalita, pagbasa, pagsulat, at pagunawa, malilinig din ang pagkamalikhain ng mga mag-aaral sa tunay na sitwasyong nangangailangan ng paggamit ng wika, ng mga kaalaman at kasanayan kaugnay ng mga ipinahihiwatig na Gawain sa pakikipagtalastasan. Lilinganin din ng mga kasanayan sa pagpapahayag, paglalahad, paglalarawan, pagsasalaysay, at pangangatwiran. Inaasahang lalo pangmapauunlad ang kaalamang pangbalarila at panretorika sa pamamagitan ng paggamit ng mga akdang pangpanitikang pagaangkapan ng araling pangwika.

#### Filipino 2 PAGBASA AT PAGSULAT TUNGO SA PANANALIKSIK

(one semester, 3 hours lecture per week, 3 units)

Ang Filipino 2 ay higit na pagpapalawak ng kaalaman at lalo pang pagpapataas ng antas ng kasanayan sa kritikal na pagbasa at lohikal na pagsulat tungo sa pagsasagawa ng pananaliksik.

#### Logic LOGIC

(one semester, 3 hours lecture per week, 3 units)

This course is a science of correct thinking, intends to equip the students with tools necessary for evaluation of situations and for decision making. It aims to deepen the student's understanding of what makes an argument valid or invalid, idea of a sound and valid argument, and the difference between truth and validity of inference. Knowledge of the subject will help facilitate in organizing concepts, expressing them with more accuracy and drawing from them legitimate conclusions.

#### Psych GENERAL PSYCHOLOGY

(one semester, 3 hours lecture per week, 3 units)

This course provides background knowledge of principles through which human behaviour may be understood. It includes the study of man as an organism, the development of his behaviour and how he reacts to forces and conditions in his environment. It covers the study of perceptions, imagination, attention, thinking, reasoning, emotions, motives, adjustment, mental health, and personality.

#### Philo2 PHILOSOPHY OF HUMAN PESON

(one semester, 3 hours lecture per week, 3 units)

This course is designed to give the student an introduction to the philosophy of the human person, covering important concepts related to man's existence and his relationship with others and with God. It also seeks to encourage the student to reflect on his/her experiences and relate them to lessons discussed in class in order to attain a deeper understanding of what a truly human person is.

## **MATHEMATICS, NATURAL SCIENCES AND INFORMATION TECHNOLOGY**

### **Math 1 COLLEGE ALGEBRA**

(one semester, 3 hours lecture per week, 3 units)

This course deals with the basic concepts of Algebra such as real number system, algebraic expressions, special products factoring, rational algebraic expressions, exponent and radicals, linear and quadratic equations, inequalities and determinant.

### **Math 2 BASIC STATISTICS WITH BIOSTATISTICS**

(one semester, 3 hours lecture per week, 3 units)

The course deals with the systematic collection, tabulation, presentation, calculation, analysis, and interpretation of quantitative data for information and decision; it includes discussion on two major types of statistics; descriptive and inferential.

### **Chem 1 GENERAL/INORGANIC CHEMISTRY WITH INSTRUMENTATION**

(one semester, 2 hours lecture and 3 hours laboratory per week, 3 units)

The course covers the fundamental concepts and the principle of general and inorganic chemistry, blending facts with theory in application, particularly to the various fields of students interest and generally to the physical world. Emphasis is given to the correlation of the present concepts of atomic composition and structure with the physical and chemical properties of elements and compounds.

### **Phys1 COLLEGE PHYSICS**

(one semester, 3 hours lecture and 6 hours laboratory per week, 5 units)

The course covers the basic knowledge in Physics. Topics include mechanics, kinetics, dynamics of translation, friction, work, power, energy and hydrostatic and calorimetric electricity and magnetism. All are suitable in everyday life and its suitability for an introductory Physics course.

### **Comp1 INFORMATION TECHNOLOGY AND LABORATORY INFORMATION SYSTEM**

(one semester, 3 hours lecture per week, 3 units)

The course deals with the basic character of the language and the coding sheet, flowcharting, simple input and output commands, and the arithmetic statements of simple program. This course is principally oriented works.

## **SOCIAL SCIENCES**

### **HealthEco HEALTH ECONOMICS WITH LRT**

(one semester, 3 hours per week, 3 units)

The course focuses on the appreciation and application of economic concepts, principles and techniques for the resource mobilization and utilization for the production of services in the health care delivery system. This integrative course is offered to sophomore students in the health sciences to allow students to gain cognitive knowledge and critical thinking skills to analyze and understand relevant economic issues related to the field of discipline they are pursuing. The course also tackles the relationship and implications of Economics to social development particularly on important health indicators and contributes to the responsiveness of the health profession in the country.

### **SocScie1 SOCIOLOGY WITH ANTHROPOLOGY**

(one semester, 3 hours lecture per week, 3 units)

The course deals with the fundamental concepts of sociology, group behaviour, social stratification and institutions and how these elements affect the lives of men. Focus is made on the Philippine society as the frame of reference for the study.

It also deals with the study of the rationale of Family Planning Program of the Philippines including policies and programs, thrusts, and the factors influencing the effectiveness and acceptance of Family Planning. Emphasis is on the application of effective communication skills, management principles and the function and values classification.

## **PHYSICAL EDUCATION**

### **PE1 GYMNASTICS AND SELF-TESTING ACTIVITIES**

(one semester, 2 hours lecture per week, 2 units)

This course is designed to guide students to discover for himself his abilities and skills in Gymnastics and self-testing activities. Through these experiences, the students may be able to go about his duties with greater effectiveness and efficiency. He is able to discover concepts that govern the moving, feeling, and thinking individual as he explores a variety of movement tasks.

### **PE2 RHYTHMIC ACTIVITIES**

(one semester, 2 hours lecture per week, 2 units)

This course covers the fundamentals in Philippine national dances, rhythmic activities, fundamental position of feet and arms, dance terminologies, dance steps, step combinations, simple folk dances and the theory and techniques of teaching of rhythmic activities and Philippine folk dances.

### **PE3 SWIMMING**

(one semester, 2 hours lecture per week, 2 units)

This course covers the study, training and practice of the particular aquatic activity. The course covers historical environments, terminologies, facilities and equipments, basic scientific skills, competitive events, and basic competition rules in race swimming. This course emphasizes practice of safety and sanitary measures while performing aquatic activities. Students are expected to learn how to swim using crawlstroke, backstroke, and breaststroke using scientific skills.

### **PE4 TEAM SPORTS**

(one semester, 2 hours lecture per week, 2 units)

The subject deals with the conduct and practice of group games and team sports. This course covers classifications of play activities like play games, sports and organized games. Emphasis is on sports like basketball, volleyball, baseball, football and others.

## **RELIGION**

### **FCL1 Filipino Christian Living 1 - IDENTITY AND DIGNITY OF THE PERPETUALITE**

(one semester, 2 hours lecture per week, 2 units)

FCL 1 is an introductory course in the UPHS Christian Living Program. It defines and explains the Catholic faith inspiration of the founders which became the pillars of the philosophy, vision, and mission of the institution. The discussions include the eight Perpetualite values, the Logo, the Perpetualite Hymn and the Perpetualite pledge. The first part covers the identity of the University and the second part covers the identity of the

Perpetualite. It also introduces the students to the initiation sacraments of baptism, confirmation and the Holy Eucharist. The experiential methodology is highlighted in the discussion on Filipino good manners and right conduct.

#### **FCL2 Filipino Christian Living 2 – THE PERPETUALITE: A MAN OF GO**

(one semester, 2 hours lecture per week, 2 units)

The course focuses on the nature of man's relationship with God and to his fellowmen. It deals with salvation history and the importance of love as the basic elements in being a man of God. It highlights the basic principles of morality and the celebration of the sacraments of healing such as the reconciliation, penance and anointing of the sick.

#### **FCL3 Filipino Christian Living 3 – THE PERPETUALITE: CALLED FOR PERFECTION**

(one semester, 2 hours lecture per week, 2 units)

The course is about the Perpetualite as an achiever. The highest quality of performance is developed in him as a way of life. Thus, his achievement starts here at school in his academic life to be continued later in his professional life, and in everything that he will do in life. It includes areas of perfection, love, marriage and family, communion sacraments and good manners and right conduct.

#### **FCL4 Filipino Christian Living 4 – THE PERPETUALITE: MAN FOR OTHERS**

(one semester, 2 hours lecture per week, 2 units)

This course works on the premise that the Perpetualite is basically a social being. He lives in a society of which he is very much a part. That society is basically here in his country. But this country is part of the greater whole, the community of nations. Thus, a Perpetualite should love his country, yet he should also be concerned of the realities outside of it. Furthermore, it highlights the nature of man's relationship to God through his fellowmen. It discusses man's role in the church especially in responding to the call of love and service for others. Includes social doctrine, solidarity, good governance, peace, good manners and right conduct.

#### **FCL5 Filipino Christian Living 5 – THE PERPETUALITE: A FILIPINO CHRISTIAN LEADER**

(one semester, 2 hours lecture per week, 2 units)

This course is a continuation of the discussion and commitment building to the UPHS Perpetualite values. Specifically, its focus is on how the value of Filipino Christian leadership could help develop the Perpetualite to become a Christian leader. Emphasis is also given on the "Leadership character" of the Perpetualite as it helps him in nation building.

#### **FCL6 Filipino Christian Living 6 – THE PERPETUALITE: A MINISTER OF LIFE**

(one semester, 2 hours lecture per week, 2 units)

A Perpetualite is basically a lover of life. He has to promote life realizing that it is a gift from God. Thus, a true and authentic Perpetualite is also a Minister of Life, hence he should possess the virtues of care, love and respect for all living things.

#### **FCL7 Filipino Christian Living 7 – THE PERPETUALITE: A CHARACTER AND NATION BUILDER**

(one semester, 2 hours lecture per week, 2 units)

This course leads to the realization that a Perpetualite is basically a character and nation builder. But before he becomes a nation builder, he should first build himself. Thus he should have a thorough understanding of himself and of his identity. Furthermore, he should possess and practice the values that are ingredients to nation building such as the values of peace and development, love, solidarity, and social justice.

#### **FCL8 Filipino Christian Living 8 – THE PERPETUALITE: A HELPER OF GOD**

(one semester, 2 hours lecture per week, 2 units)

This course is the fulfillment of all the FCL programs. It moves the Perpetualite to actualize the virtues/values to be acquired in loving and helping others. As a helper of God, he should be a living witness of total service to others. He should possess the characters of a true helper of God such as humility, obedience, love, and dedication to help others especially the lost and the least in the community

### **NATIONAL TRAINING SERVICE PROGRAMS**

#### **NSTP 1 NATIONAL TRAINING SERVICE PROGRAM 1**

(one semester, 3 hours lecture per week, 3 units)

This course deals with the program component or activities contributory to the general welfare and betterment of life for the members of the community or the enhancement of its facilities, especially those devoted to improving health, education, environment, entrepreneurship, safety recreation, morals of citizenry, and other social welfare services. It tackles environmental education, personal and social values, skills, human needs, rights, leadership and group development. This aims in promoting each individual participated by both teachers and students with concerns to alleviate their knowledge and enhance their skills in handling situations particularly environmental issues and community problems and the opportunity to come up with solutions that will provide them with good health and better environment for sustainable development.

#### **NSTP 2 NATIONAL TRAINING SERVICE PROGRAM 2**

(one semester, 3 hours lecture per week, 3 units)

This course tackles community organizing, assessment, program planning and implementation. This aims to promote each individual, participated by both teachers and students with the opportunity to come up with solutions that will provide them with good health and better community for sustainable development. The unit of cooperation and exposure among the organizers to the community will provide them with the actual management, planning, and implementation of the program.

### **MANDATED SUBJECTS**

#### **PHILGOCO PHILIPPINE HISTORY, GOVERNMENT, AND CONSTITUTION**

(one semester, 3 hours lecture per week, 3 units)

This course deals with the study of the history of the Filipino people, covering from pre-colonial Philippines-Spanish period, American period, Japanese period, Japanese occupation, more particularly the governments established in those periods and the different governments of the Philippines in transition up to present. It has special emphasis on 1935 up to the present.

#### **Rizal LIFE AND WORKS OF RIZAL**

(one semester, 3 hours lecture per week, 3 units)

Ang kursong ito ay sumasaklaw sa buhay, Gawain at kabayanihang nagawa ng pambansang bayanig si Dr. Jose Rizal. Higit na binibigyang diin sa pag-aaral nito ang Noli Me Tangere ta El Filibusterismo, bukod sa iba pang mahalagang isinulat na tula at liham.

## **CORE SUBJECTS**

### **BioSci1 GENERAL ZOOLOGY**

(one semester, 2 hours lecture and 3 hours laboratory per week, 3 units)

The course is a discussion of the fundamentals of the morphological and physiological aspects of cytology, histology, and organ system with the frog used as the representative vertebrate specimen. Sample is used on the perpetuation of life manifestation in simple exercises and investigations involved in genetics and embryology. A survey of the major phyla of the animal kingdom is also included. This course is also a study of the history of the struggle of vertebrate animals for compatibility with an ever changing environment, the extermination of the unfit and the invasion of new territory by those best equipped for survival. It is a study of history just as is the study of man's conquest, political fortunes, and social evolution

### **Chem 2 QUALITATIVE AND QUANTITATIVE CHEMISTRY**

(one semester, 3 hours lecture and 6 hours laboratory per week, 5 units)

The course deals with the theory and practice of chemical analysis, particularly on the determination of the kinds (qualitative) and amounts (quantitative) of constituent in a sample of material. Emphasis is given to the application of the basic principles of chemistry methods of analysis, and on the students acquisition of skills in laboratory techniques.

### **Chem 3 ORGANIC CHEMISTRY**

(one semester, 3 hours lecture and 6 hours laboratory per week, 5 units)

The course deals with the basic principle underlying the chemistry of carbon which includes bonding isomeric and functional groups in the alkanes, cycloalkenes, amines, alcohols, alkyl halides, and esters, aldehydes, ketones, carbocyclic acids and their derivatives and organic nitrogen compounds.

### **Chem 4 BIOCHEMISTRY**

(one semester, 3 hours lecture and 6 hours laboratory per week, 5 units)

The course includes discussion of the structure and characterization of carbohydrate, lipids and protein, nucleic acid, etc. their metabolism and used by the living organism.

### **Ana/Physio INTEGRATED HUMAN ANATOMY AND PHYSIOLOGY**

(One semester, 3 hours lecture and 6 hours laboratory per week, 5 units)

This course deals with the study of the different parts of the human body and their functions. It includes the definition of anatomical terms, correlation of biologic structure with normal physiologic functions, basic regulatory mechanisms that promotes homeostasis, and familiarization to some physiologic parameters that serve as indicators for the individual's state of health.

## **PROFESSIONAL COURSES**

### **INTMED1 INTRODUCTION TO MEDICAL TECHNOLOGY WITH STS AND GENERAL LABORATORY KNOWLEDGE WITH BASIC PHLEBOTOMY**

(one semester, 2 hours lecture per week, 3 hours laboratory 3 units)

Prerequisite: None

This course is designed to introduce students to the major disciplines (Hematology, Histopathology, Microbiology, Clinical Chemistry, Blood Banking, etc.) in the Medical Technology profession. In addition, students are introduced to the structure of the clinical laboratory and pathology services and an examination of the roles and functions of medical technologists. Students are acquainted with professional practice including ethical practices in laboratory science and laboratory-based research. Introduction to environmental and occupational health safety issues affecting laboratory practices are also touched. The course includes discussion on the historical foundations of the profession, its impact to society and its contribution to other medical sciences. An introduction to phlebotomy is also included within the course.

### **INTROTOEMP INTRODUCTION TO EMERGENCY MEDICAL PROCEDURES WITH MEDICAL TERMINOLOGY**

(one semester, 2 hours lecture per week, 6 hours laboratory; 4 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course will present the fundamentals of human anatomy and physiology with emphasis on anatomical terminology, to organ system, to planes and section topographical anatomy, anatomical directions/directional terms, body cavities and regions. Likewise, medical terminologies; medical acronyms/abbreviation and symbols will also be presented. Topics in this course also cover the emergency medical system protocols and guidelines as a citizen responder in emergency situations. It will also offer an insights on providing appropriate patients assessment (cephalo-caudal), vital signs monitoring skills and fitting management in certain life threatening emergencies such as respiratory and cardiac arrest. Technique on applying airway management and rescue breathing skills will also be highlighted. Finally these skills will be applied in performing cardio pulmonary resuscitation in basic life support. Lectures are supplemented with class demonstrations, case scenario analysis, student practice and graded return demonstration.

### **MEDORIEN MEDICAL ORIENTATION/INTRODUCTION TO EMERGENCY MEDICAL PROCEDURES 2**

(one semester, 2 hours lecture per week, 3 hours laboratory; 3 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course reviews the basics of emergency medical care. It also addresses patient assessment and airway management. Moreover, the course not only intent to produced students who can provide competent emergency medical care but also emotional support for the patient and the family members. Hence, this will discuss emergency medical services stress and stressors and how to manage them. Understanding of body cavity injuries, musculoskeletal injuries, and soft tissue trauma and burn will be tackled. Finally topics from emergency preparedness in the events of typhoon, floods and earthquakes will be recognized in the undertaking of this course. Lectures are supplemented with class demonstrations, case scenario analysis, student practice and graded return demonstration.

### **COMPUB1 COMMUNITY AND PUBLIC HEALTH 1**

(one semester, 2 hours lecture, 9 hours laboratory per week, 5 units)

The course deals with the study of the foundations of community health that includes human ecology, demography, and epidemiology. It emphasizes the promotion of community, public, and environmental health.

### **COMPUB2 COMMUNITY AND PUBLIC HEALTH 2**

(one semester, 2 hours lecture, 9 hours laboratory per week, 5 units)

The course deals with the study of the foundations of community health that includes human ecology, demography and epidemiology. It emphasizes the promotion of community, public and environmental health.

## **PHARMA PHARMACOLOGY**

(one semester, 2 hours lecture per week, 2 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course provides an in depth discussion regarding medical pharmacology as it relates to their use in disease diagnosis and treatment and in the practice of Laboratory Science. The course provides an introduction to pharmacology, including terminology, drug-receptor interactions, metabolism, and evaluation. Medications are discussed according to major drug classifications and body systems. Drug use, side effects, contraindications, and interaction will likewise be introduced. A general understanding of the actions and reasons for use of various groups of pharmacologic agents are established. A special topic on Herbal Medication is also included.

## **CYTO/HISTO HISTOLOGY, CYTOGENETICS AND MOLECULAR BIOLOGY**

(one semester, 3 hours lecture 3 hours laboratory per week, 4 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course covers the general overview of the notions related to the study of heredity and inheritance: genetic, phenomena, sex determinations and defects in relation to human inheritance. Nucleic acids (DNA and RNA) compositions as well as their application to medical science are given emphasis. Histology, which deals with the study of the fundamentals of cells, tissues and organ, highlights their microscopic structure characteristics and functions. Finally, theory will be applied to evaluate, classify, diagnose, and monitor abnormalities. This course will bring forth some of the components of the newest studies and activities. Lectures are supplemented with class demonstrations, student practice, study questions, group discussions, and case studies.

## **CC1 CLINICAL CHEMISTRY 1**

(one semester, 3 hours lecture 3 hours laboratory per week, 4 units)

Prerequisite: Biochemistry, Anatomy and Physiology

The course deals with the physiologically active soluble substances found in body fluids particularly blood. These involve the knowledge and the understanding of the basic concepts and principles of their metabolism, laboratory analyses and their diagnostic utility.

## **CC2 CLINICAL CHEMISTRY 2**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Clinical Chemistry 1

The course is a continuation of clinical chemistry 1. It deals with liver function tests, enzymes, electrolytes, blood gases and tumor markers. This involves the knowledge and understanding of the concepts and principles of their metabolism, laboratory analyses and their diagnostic value.

## **CC3 CLINICAL CHEMISTRY 3 (ENDOCRINOLOGY, TOXICOLOGY, AND DRUG TESTING)**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Pharmacology, Clinical Chemistry 1

This course deals with the study of the nature of endocrine glands with emphasis on its anatomy, hormonal properties, functions, and laboratory analyses. It also deals with the principles of drug disposition, specific drug groups and their classification, action, therapeutic drug monitoring and laboratory analyses of toxic substances of abuse.

## **MICRO1 BACTERIOLOGY**

(one semester, 3 hours lecture 6 hours laboratory per week, 5 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course deals with the study of the morphology and physiology of bacteria and their role to infection and immunity. Emphasis is made on their isolation, identification and susceptibility testing as an aid in laboratory diagnosis.

## **MICRO2 MYCOLOGY AND VIROLOGY**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Bacteriology

The course deals with the study of morphologic and biologic characteristics of fungal and viral agents of diseases. It also includes the study of laboratory diagnostic methods, modes of transmission, epidemiology, pathology, prevention and control of diseases caused by virus and fungi.

## **GENPATH HISTOPATHOLOGIC AND CYTOLOGIC TECHNIQUES**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Cytogenetics and Histology

This course covers the general overview of the study of the concepts related to the study of preparation, fixation, embedding, sectioning, mounting, and staining of tissues for the purpose of microscopic examination. Also includes evaluation of stained tissues preparations and identification of common cellular structures, laboratory safety and review of relevant regulations.

Histopathology refers to the microscopic examination of tissue in order to study the manifestations of disease. In clinical medicine, histopathology is an overview of general pathology as well as the different histopathological techniques which focuses on the examination of a biopsy or surgical specimen by a pathologist, after the specimen has been processed. Finally, in this course, theory will be applied to evaluate, classify, diagnose, and monitor abnormalities. Lectures are supplemented with class demonstrations, student practice, study questions and, group discussions,.

## **PARA PARASITOLOGY**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Anatomy and Physiology

This course provides an in depth discussion regarding the association of medically important parasites, vectors and their human hosts. The morphological characteristics of the parasitic stage, lifecycle, mode of transmission, pathogenesis, clinical manifestations of parasitic infections, epidemiology, prevention and control, and basic treatment will be discussed with special emphasis on the laboratory techniques employed to detect and identify parasites and assess the degree of their infection or invasion.

## **MTLBE MEDICAL TECHNOLOGY LAWS AND BIOETHICS**

(one semester, 3 hours lecture per week, 3 units)

Prerequisite: Introduction to Medical Technology

This course deals primarily with the study of Republic Act 5527, also known as the Philippine Medical technology Act of 1969. Included in this study are related laws to the practice of Medical technology in the Philippines, as well as the professional ethics and bioethical principles and standards that cope with the health of human individuals and their society.

## **HEMA1 HEMATOLOGY 1 (BASIC HEMATOLOGY AND BENIGN CONDITIONS)**

(one semester, 3 hours lecture 3 hours laboratory per week, 4 units)

Prerequisite: Anatomy and Physiology, Biochemistry, Cytogenetics and Histology

This course covers the general overview of the study of blood cells starting with the principles of hematopoiesis (blood cell formation), the anatomy, kinetics and physiology of the erythrocytes and leukocytes, biochemistry of hemoglobin, and normal and abnormal RBC and WBC morphology. Routine and specialized hematology tests applied to erythrocytes and leukocytes will also be discussed, with an emphasis on performing and

interpreting test results. Laboratory automation and its associated principles are also discussed. Finally, theory will be applied to evaluate, classify, diagnose, and monitor non-malignant red and white blood cell abnormalities. Lectures are supplemented with class demonstrations, student practice, study questions, group discussions, and case studies.

#### **HEMA2 HEMATOLOGY 2 (MALIGNANT HEMATOLOGIC DISORDERS AND HEMOSTASIS)**

(one semester, 3 hours lecture per week, 3 units)

Prerequisite: Hematology 1

This course covers the role of the Hematology department in the diagnosis and management of blood cell disorders. This deals with the general overview the principles of hematologic malignancies, classification, pathogenesis, clinical and laboratory presentation, and a general idea of its treatment and general prognosis. Routine and specialized hematology tests applied to neoplastic disorders will also be discussed, with an emphasis on performing and interpreting test results. Finally, the principles governing coagulation and fibrinolysis, blood vessel and thrombocyte anatomy and physiology, biochemistry of the coagulation factors, manual and automated routine and special hemostasis tests, and benign hemostatic disorders are likewise discussed. Lectures are supplemented with class demonstrations, student practice, study questions, group discussions, and case studies.

#### **CLINCORR INTRODUCTCLINICAL CORRELATIONS OF LABORATORY EXAMINATIONS**

(one semester, 3 hours lecture per week, 3 units)

Prerequisite: None

This course covers the most common medical diseases where laboratory values play a crucial role in the diagnosis. The cases are distributed equally into the five (5) major licensure subjects of the profession, namely: Hematology and Coagulation, Clinical Chemistry, Immunology and Serology, Urinalysis and Other Body Fluids, and Histopathology, and Microbiology/Parasitology. These cases deal with the demographics, pathogenesis, clinical presentation, laboratory tests and their interpretation and how treatment affects the laboratory values. Cases are further reinforced by major ethical ideas that will guide the fledgling student in becoming a well rounded professional.

#### **LABMGT LABORATORY MANAGEMENT & HEALTH CARE LEADERSHIP**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: None

This course deals with the study of the basic concepts of management, planning, organizing, leading, staffing, controlling as applied to the clinical laboratory set-up with emphasis on development of key skills including: staff selection, leadership and delegation, effective problem solving and communication. Quality assurance/Quality control, policy, procedure manuals, and resource management will also be discussed.

#### **I/S IMMUNOLOGY AND SEROLOGY**

(one semester, 3 hours lecture 3 hours laboratory per week, 4 units)

Prerequisite: Biochemistry, Anatomy and Physiology

This course deals with the basic concepts of immunology and principles of serological procedures, reading, interpretation of results and their clinical significance

#### **AUBF ANALYSIS OF URINE AND OTHER BODY FLUIDS**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Anatomy and Physiology, Biochemistry

This course deals with the study of gross, chemical, and microscopic analyses of the different body fluids other than blood. It includes the importance of these body fluids to body processes, the principle of the analytical procedures, interpretation of results and clinical significance of the physiologically important substances found in these body fluids.

#### **IH IMMUNOHEMATOLOGY (BLOOD BANKING)**

(one semester, 2 hours lecture 3 hours laboratory per week, 3 units)

Prerequisite: Immunology/Serology, Cytogenetics and Histology

The course deals with the concepts and principles of different red cell antigen systems and the application of the specific blood group antigens and antibodies to compatibility testing. This also deals with the entire blood donation process, transfusion practice and the reactions associated with incompatibility

#### **PSTHE PRINCIPLES AND STRATEGIES OF TEACHING HEALTH EDUCATION**

(one semester, 3 hours lecture per week, 3 units)

Prerequisite: None

This course deals with the principles or teaching and learning strategies in health education including adult learning, the roles of a teacher/medical technologist in different settings. It also includes strategies that enhance critical thinking, clinical laboratory testing, assessing, and evaluating learning.

#### **RESEARCH 1 INTRODUCTION TO RESEARCH**

(one semester, 1 hour lecture 6 hours laboratory per week, 3 units)

Prerequisite: None

This course deals with the basic concepts, principles and procedures of methods of research, form and style in thesis writing.

#### **RESEARCH 2 RESEARCH AND THESIS WRITING**

(one semester, 1 hour lecture 6 hours laboratory per week, 3 units)

Prerequisite: Research 1

The course deals with the completion of the research process started in Research 1. Emphasis is given on the presentation, analysis, and interpretation of data and summary of findings and recommendations.

#### **SEM1 SEMINAR/COMPETENCY APPRAISAL 1**

(one semester, 3 hour lecture per week, 3 units)

Prerequisite: All professional subjects

The strategic coverage of this program is to provide medical technology students with a comprehensive preparatory course focused on successfully passing the Philippine Medical Technology Licensure Exam. The subject of Special topics is divided into two and one is not the prerequisite of the other. Special topics I involve the subjects of Microbiology/Parasitology, Urinalysis and other Body Fluids, and Histopathology/Medical Technology Laws and Bioethics with special attention to significant themes involving newer technologies in the laboratory or any reinforcements to basic concepts previously learned.

#### **SEM2 SEMINAR/COMPETENCY APPRAISAL 1**

(one semester, 3 hour lecture per week, 3 units)

Prerequisite: All professional subjects

The strategic coverage of this program is to provide medical technology students with a comprehensive preparatory course focused on successfully passing the Philippine Medical Technology Licensure Exam. The subject of Special topics is divided into two and one is not the prerequisite of the

other. Special topics I involve the subjects of Hematology, Clinical Chemistry, and Immunology and Serology with special attention to significant themes involving newer technologies in the laboratory or any reinforcements to basic concepts previously learned.

### **CE1 and CE2 CLINICAL EDUCATION**

(12 months clinical internship, 30 units)

Prerequisite: All professional and general education subjects

Clinical education 1 and 2 is an intensive practical and theoretical training in the different sections of the clinical laboratory namely Hematology, Clinical Chemistry, Hematology, Blood Banking, Immunology, Serology, Clinical Microscopy, Parasitology, Microbiology, Histocytology and other emergent technologies for twelve months. IT also emphasizes on the development of proper values system.

### **COMPREHENSIVE EXAMINATION AND RATIONALIZATION**

(one semester, 5 units)

Prerequisite: All professional subjects

This course provides the students the opportunity to identify their strengths and weaknesses. This cover a series of examination on the different areas of medical technology professional education to determine how much has been achieved after a certain period of learning, identify students learning difficulties and guide both faculty and student in identifying areas that needs to be focused on, and finally serve as a basis for promotion or retention for students who are candidates for graduation.

## **FURTHER STUDY OPTIONS**

- Masters of Science in Medical Technology/Medical Laboratory Science
- Masters of Science in Microbiology
- Masters of Science in Clinical Programs Development
- Masters of Science in Public Health
- Doctor of Medicine

## **CAREER OPPORTUNITIES**

**Specific Professions/Careers/Occupations for Graduates:** Licensed Medical Technologists/Medical Laboratory Scientists, Diagnostic Molecular Scientists, Research Scientists, Educators, Diagnostic Product Specialists, Public Health Practitioners, Healthcare Leaders

**Allied Medical Fields:** Public Health/Epidemiology, Veterinary Laboratory Science, Molecular Biology/Biology, Nuclear Science, Forensic Science, Health Administration/Management, Food and Industrial Microbiology:

## **ENTRY CRITERIA**

Admission to the college is a privilege granted to students who meet the criteria set by the school. Unless otherwise changed, these requirements are as follows:

### **ADMISSION REQUIREMENTS**

- High School Card
- Certificate of Good Moral Character
- Birth Certificate
- 2 pcs. 2x2 photo
- 3 long brown envelopes
- 3 long plastic envelopes

### **FOR TRANSFEREES**

- Certification of grades with numbers of units and course description or copy of class cards for evaluation
- Certificate of good moral character
- Honorable dismissal
- Transcript of Records (original and photocopy)

## **CONTACT DETAILS**

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