



CMLS COURSE DESCRIPTION

SEMESTER AND YEAR LEVEL	COURSE TITLE	COURSE DESCRIPTION
1 ST YEAR 1 ST SEMESTER	UNDERSTANDING THE SELF	This course deals with the nature and identity factors and forces that affect the development and maintenance of personal identity.
	MATHEMATICS IN THE MODERN WORLD	This course deals with the nature of mathematics, appreciation of its practical, intellectual and aesthetic dimensions and application of mathematical tools in daily life.
	PHILIPPINE POPULAR CULTURE	The three-unit subject provides the students with critical perspectives in understanding and way of knowing popular culture in the Philippines. This course aims to explore new forms of in art, music, and literature arising from opportunities and demands of mass audiences, markets, and mass media, and their social, economic and political contexts. This subject locates popular culture as a historico- spatial condition and phenomenon of Philippine modernity. The subject aims to investigate how the term popular culture is operationalized, circulated, re- produced, consumed and instrumentalized by the recurring social order.
	INORGANIC AND ORGANIC CHEMISTRY LECTURE	This course deals with the study of the basic principles in inorganic and organic chemistry that will be used by the students in their advance chemistry subjects like analytical chemistry and biochemistry.
	INORGANIC AND ORGANIC CHEMISTRY LABORATORY	This course deals with the study of the basic principles in inorganic and organic chemistry laboratory that will be used by the students in their advance chemistry subjects like analytical chemistry and biochemistry.
	SCIENCE, TECHNOLOGY AND SOCIETY	This course deals with the interaction between science and technology and social, cultural, political and economic contexts which shape and are shaped by them.
	PRINCIPLES OF MEDICAL LABORATORY SCIENCE PRACTICE 1	PMLS-1 is a 3-unit lecture course offered in the first year BMLS program, with its maiden offering in SY 2018-2019 in the light of the new BMLS curriculum, by virtue of CHED Memo #13 s 2017.

		The course deals with history of medical technology practice including ethics, biosafety and biosecurity, biorisk management, nature of the clinical laboratory, continuing professional development, among others. It explores the essentials needed to grasp the medical technology, education and profession.
	PHYSICAL FITNESS & WELLNESS	This course is designed to measure and evaluate the physical condition and capabilities of the students. Activities are focused on the foundation of Physical fitness and Dance Aerobics as the development activity. Provides opportunities to discover their special skills for effective physical performances and competitiveness in the Inter-class.
	CIVIC WELFARE& TRAINING SERVICE1	This course is pursuant to Republic Act No. 9163, otherwise known as the National Service Training Act of 2001, which mandates tertiary educational institutions to incorporate in the collegiate curriculum a program aimed at “enhancing civic consciousness and defense preparedness in the youth by developing the ethics of service and patriotism.
	CHRISTIAN FOUNDATION AND VALUES EDUCATION 1	This course is an overview of the Basic Christian beliefs and values grounded in the Word of God which is the Bible and which is essential in the spiritual as well as the holistic development of every individual. This course further equips the students positive attitudes and values toward God, their country, their family, their community and fellowmen.
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
1 ST YEAR	PURPOSIVE COMMUNICATION	This course deals with writing, speaking and presenting for different audiences and for various purposes.
	ENVIRONMENTAL SCIENCE	The course is an interdisciplinary subject that deals with the knowledge and the skill drawn from several fields that impact the environment. It involves the study of ecology, human population, natural resources, agriculture, energy and environmental pollution.
	ETHICS	This course deals with the principles of ethical behavior in modern society at the level of the person, society and in interaction with the environment and other shared resources.

2 ND SEMESTER	WORLD LITERATURE AND CIVILIZATION	This course provides survey of the greatest pieces of literature all over the world; with representative readings from various places and various time periods. This course focuses on literature from all parts of the world – Asia, Africa, America, Europe. The literary selections which serve as the vehicles for understanding the experiences of the human family are studied for appreciation of their artistic and cultural values that unite the different literary traditions. It is also dealing with the study of literary genres, exemplified by selected literary pieces from various countries, written at different period in history.
	ANALYTICAL CHEMISTRY (QUALITATIVE & QUANTITATIVE) LECTURE	This course deals with the study of general concepts in qualitative and quantitative branches of chemistry. It is designed to equip the students with the necessary skills and knowledge about the application of chemical concepts in analyzing quantitatively and qualitatively chemical compounds.
	ANALYTICAL CHEMISTRY (QUALITATIVE & QUANTITATIVE) LABORATORY	This course deals with the study of general laboratory concepts in qualitative and quantitative branches of chemistry. It is designed to equip the students with the necessary laboratory skills and knowledge about the application of chemical concepts in analyzing quantitatively and qualitatively chemical compounds.
	PRINCIPLES OF MEDICAL LABORATORY SCIENCE2 (CLINICAL LABORATORY ASSISTANCE AND PHLEBOTOMY) LECTURE	<p>PMLS-2 is a 3-unit lecture course offered in the first year BMLS program, with its maiden offering in SY 2018-2019 in the light of the new BMLS curriculum, by virtue of CHED Memo #13 s 2017.</p> <p>The course deals with the introduction and different methods of Phlebotomy, challenges in phlebotomy, sample consideration and special procedures performed in the laboratory. It explores the essentials needed to grasp the importance of phlebotomy and Clinical Laboratory Assistance.</p>
PRINCIPLES OF MEDICAL LABORATORY SCIENCE2 (CLINICAL LABORATORY ASSISTANCE AND PHLEBOTOMY) LABORATORY	<p>PMLS-2 is a 1-unit laboratory course offered in the first year BMLS program, with its maiden offering in SY 2018-2019 in the light of the new BMLS curriculum, by virtue of CHED Memo #13 s 2017. The course deals with the introduction and different methods of Phlebotomy, challenges in phlebotomy, sample consideration and special procedures performed in the laboratory. It explores the essentials needed to grasp the importance of phlebotomy and Clinical Laboratory Assistance.</p>	

	SELF DEFENSE	This course deals with the fundamental rhythm and basic movements, patterns in the varied dance forms. The students were given exercises on the basic steps and step variations in varied social dances that commensurate to their abilities, needs and interest lead them to respond properly to music. After which they will be encourages to utilize their individual skills for group creative combination.
	CIVIC WELFARE & TRAINING SERVICE2	This course is a sequel to NSTP 1 and is destined to immerse students in activities that it will arm them the capability to contribute in the upliftment of the general welfare and the quality of life of the community and the enhancement of its facilities especially those that are devoted to improving the health, environment, entrepreneurship, safety, recreation and morale of the citizen.
	CHRISTIAN FOUNDATION & VALUES EDUCATION 2	This course is designed to provide instructions toward righteous living in the sight of God .It includes topics on moral and ethical standards that a student can use in making wise decisions for life.
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
2 ND YEAR 1 ST SEMESTER	READINGS IN PHILIPPINE HISTORY	This course is all about Philippine History viewed from the lenses of selected primary sources in different periods, analysis and interpretation.
	THE ENTREPRENEURIAL MIND	This course deals with the meaning and attributes of entrepreneurship (e. g. innovativeness, risk-taking and self-reliance), the social role and impact of entrepreneurship.
	HUMAN ANATOMY & PHYSIOLOGY WITH PATHOPHYSIOLOGY LECTURE	Integrated Anatomy and Physiology is the study of cells, tissues and organ systems of the human body. Systems included are the integumentary, skeletal,muscular, nervous, endocrine, cardiovascular, respiratory, lymphatic, digestive, urinary, and reproductive. Focus is on structures and the integrated control mechanisms of physiology in these systems. This course is intended for students in health-related fields. Prerequisite for the course is general zoology. This is a three- credit unit course.
	HUMAN ANATOMY & PHYSIOLOGY WITH PATHOPHYSIOLOGY LABORATORY	The course deals with the study of cells, tissues and organ systems of the human body. Systems included are the integumentary, skeletal, muscular, nervous, endocrine,

	cardiovascular, respiratory, lymphatic, digestive, urinary, and reproductive. Focus is on structures and the integrated control mechanisms of physiology in these systems including their disordered physiological processes associated with disease or injury. This course is intended for students in health-related fields.
BIOCHEMISTRY FOR MED LAB SCIENCE LECTURE	<p>Chemistry 3 is a Biochemistry subject which is a three (3) unit subject, designed to provide students with a thorough foundation in chemistry and biology and an appreciation of how these sciences are integrated to explore the molecular mechanisms underlying biological processes. The plan of study prepares students for careers in the paramedical field of studies.</p> <p>Chemistry 3 or Biochemistry focuses on the understanding of biochemical processes in the context of chemical principles in relation to the appreciation and understanding of biological networks. Because the field of biochemistry is continually evolving and touches many areas of cell biology, this course also includes an elementary introduction to the study of molecular biology; basic metabolism of carbohydrates, fats, and proteins with emphasis on the biochemical fluctuations that occur in human health and disease; nucleic acid and the utilization of various nutrients including vitamins, and water and minerals hormones. Furthermore, it also includes the importance of research design and application to investigate questions in biochemistry through research activities.</p>
BIOCHEMISTRY FOR MED LAB SCIENCE LABORATORY	Biochemistry – Laboratory is a 2-unit experiment science, which deals with the application of laboratory techniques and procedures in order to determine the scope of biochemical present in particular sample. Aside from that, the laboratory proper will actually permit students to visualize the important characteristics of the bio molecules: those that are essential for the growth of the human being. It also stimulates and prepares students to enrich and develop their creativity, in dependence, critical analysis and scientific attitudes during actual performance of experiments contain series of questions designed to direct attention to the important features to be observed in the experiment
COMMUNITY AND PUBLIC HEALTH FOR MEDICAL LABORATORY SCIENCE LECTURE	Community and Public Health Lecture is a two (2) unit course that deals with the study of the foundations of community that includes human ecology, demography, and epidemiology. It emphasizes the promotion of community, public and environmental health.

	COMMUNITY AND PUBLIC HEALTH FOR MEDICAL LABORATORY SCIENCE LABORATORY	Community and Public Health Laboratory is a two (2) unit course that deals with the study of the foundations of community that includes human ecology, demography, and epidemiology. It emphasizes the promotion of community, public and environmental health.
	MED TECH LAWS AND BIOETHICS	The course deals with the study of various laws related to the practice of Medical Technology in the Philippines primarily RA 005527. It also includes the study of professional ethics and Bioethics. Bioethics deals with the study of Ethics in relation to health particularly and to human life generally. Its emphasis is on basic ethical principles, major bioethical principles and its application in health. It also includes the discussion of philosophical principles and virtues of health care providers.
	BIOSTATISTICS AND EPIDEMIOLOGY LECTURE	<p>Epidemiology and Biostatistics is a 3 unit subject in the Medical Laboratory Science new curriculum, consisting of lecture and laboratory classes.</p> <p>Epidemiology and Biostatistics is the science that is primarily concerned with making inferences about population parameters using sampled measurement, statistical methods provide the tools for epidemiological research. It studies the incidence and prevalence rates of disease in large populations and with detection of the source and cause of epidemics of infectious disease. It studies the different methods of collecting data, presenting data, analysis and interpretation of quantitative information.</p> <p>This course enables students to become competent and cyber Mathematicians in a high-technology world. It deals with descriptive statistics and inferential statistics. It discusses the importance and uses of statistics, concepts or terms used in this field of mathematics, measures of central tendency, measures of variability, testing of hypotheses, and other standard measurements, which can be applied in conducting simple study or research. This course will transform students from traditional to modern learners by the use of computer generated tests and varied learning activities such as role-playing, cooperative learning, games/puzzles, debate, dyadic activities. etc.</p>
	BIOSTATISTICS AND EPIDEMIOLOGY LABORATORY	Epidemiology and Biostatistics is a 3 unit subject in the Medical Laboratory Science new curriculum, consisting of lecture and laboratory classes.

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	SWIMMING WITH BASIC LIFE SUPPORT	This course deals with the fundamentals of swimming and survival skills. The students are expected to learn the basic and ADVANCED strokes and skills associated with swimming and survival techniques.
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
2 ND YEAR	ART APPRECIATION	This course deals with the nature, function and appreciation of the arts in the contemporary society.
	THE CONTEMPORARY WORLD	This course deals with the globalization and its impact on individuals, communities and nations, challenges and responses.
	HEALTH INFORMATION SYSTEM FOR MEDICAL LABORATORY SCIENCE LECTURE	The course provides an overview of information management and technology. It presents the general situation of health care delivery system and how this system employs various types of health information systems for all its operational needs.

2 ND SEMESTER		It also deals with the core concepts, roles, functions, components, applications, workflow and quality control of health management, hospital, laboratory and material information system as applied in the practice of medical laboratory science. Ethics in health information system, the privacy, confidentiality and security measures are also given emphasis.
	HEALTH INFORMATION SYSTEM FOR MEDICAL LABORATORY SCIENCE LABORATORY	<p>The course provides an overview of information management and technology. It presents the general situation of health care delivery system and how this system employs various types of health information systems for all its operational needs.</p> <p>It also deals with the core concepts, roles, functions, components, applications, workflow and quality control of health management, hospital, laboratory and material information system as applied in the practice of medical laboratory science. Ethics in health information system, the privacy, confidentiality and security measures are also given emphasis.</p>
	LABORATORY MANAGEMENT	This course deals with the study of basic concepts of management as applied in administrative aspects of laboratory operations. Specifically, it deals with planning, organizing, leading/directing, controlling/evaluating the human, physical and financial resources of the clinical laboratory. Emphasis is also given on quality systems and safety.
	HUMAN HISTOLOGY LECTURE	This course subject deals with the study of the fundamentals of cells, tissues and organs with emphasis on microscopic structure, characteristics and function.
	HUMAN HISTOLOGY LABORATORY	The course deals with the study of the fundamentals of cells, tissues and organs with emphasis on microscopic structure, characteristics and functions.
	ANALYSIS OF URINE AND BODY FLUIDS LECTURE	The course deals with the study of the 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 principles of the analytical procedures, interpretation of results, and clinical significance of the physiologically important substances found in these body fluids. Quality Assurance and Laboratory Safety are also given emphasis.
	ANALYSIS OF URINE AND BODY FLUIDS LABORATORY	The course deals with the study of the gross, chemical, and microscopic analysis of the different body fluids other than blood. It includes the importance of these body fluids to body processes, the principles of the analytical procedures, interpretation of results and clinical significance of the physiologically important substances found in these body fluids.

	CYTOGENETICS	Cytogenetics deals with the study of the concepts related to the study of heredity and inheritance, genetic phenomena, sex determinations defect in relation to human inheritance. Nucleic acids and their application to medical science are given emphasis. This course prepares the students for the subject Histology and Histopathologic Techniques which is a professional board subjects in Medical Laboratory Science.
	LIFE AND WORKS OF RIZAL	This course is designed to orient the students about the life, works and writing of the greatest hero and martyr of our nation from the day of his birth until the day of his death.
	SPORTS	This course deals with various indoor and outdoor activities designed to arouse the student's interests and abilities to develop self-esteem, perseverance, courage and sense of creativity which will be utilized and carried on to their lifetime endeavors. Covers also activities in which the emphasis is placed upon the development of physical skills through recreational sports essential for stress management.
SEMESTER AND YEAR	COURSE/ SUBJECT	COURSE DESCRIPTION
3 RD YEAR 1 ST SEMESTER	INTRO TO MED LAB SCIENCE RESEARCH LECTURE	Introduction to Medical Laboratory Science Research is a 2 unit course which deals with ideas, concepts, principles, purpose, characteristics, types and methods of laboratory science research. Emphasis is on the identification, selection of researchable situations and problems, research hypothesis, the major research methods, preparation of the research instruments, review of related literature and studies, sampling, guidelines in the selection of statistical tools to be used and principles and elements of research ethics. It is also designed to provide with basic skills and knowledge in designing and writing a medical laboratory science research proposal based on current and institutional form and style.
	INTRO TO MED LAB SCIENCE RESEARCH LABORATORY	Introduction to Medical Laboratory Science Research is a 2 unit course which deals with ideas, concepts, principles, purpose, characteristics, types and methods of laboratory science research. Emphasis is on the identification, selection of researchable situations and problems, research hypothesis, the major research methods, preparation of the research instruments, review of related literature and studies, sampling, guidelines in the selection of statistical tools to be used and principles and elements of research ethics. It is also designed to provide with

		basic skills and knowledge in designing and writing a medical laboratory science research proposal based on current and institutional form and style.
	CLINICAL CHEMISTRY 1 LECTURE	<p>The course deals with the introduction to the principles and procedures of various tests and quantitative measurements of the biochemical substances found in body fluids essentially blood. It involves the knowledge and understanding of their physiology, metabolism, relationship to the various functions of the human body organs and the development of diseases and derangement including concepts of the test, the principle and procedure, and the clinical significance of the test results, quality control and reference ranges.</p> <p>The course also deals with basic chemical laboratory technique, laboratory safety, instrumentation, quality assurance, evaluation of the accuracy and precision of the procedures using analytical techniques, patient preparation and sample collection of the biochemical substances such as amino acids, proteins, carbohydrates and lipids found in body fluids essentially blood. Concepts and principles of the liver function are also given due emphasis.</p>
	CLINICAL CHEMISTRY 1 LABORATORY	<p>The course deals with the principles and performance of procedures of various tests and quantitative measurements performed on Clinical Chemistry laboratory. This involves the knowledge, evaluation and demonstration of the physiological basis and concepts for the test, the principle and procedure, and the clinical significance of the test results, including the quality control and reference ranges.</p> <p>The course also deals with chemical chemistry laboratory technique, safety, instrumentation and evaluation of the accuracy and precision of the procedures using analytical techniques of the biochemical substances such as amino acids, proteins, carbohydrates and lipids found in body fluids essentially blood. Concepts and principles of the liver function are also given due emphasis.</p>
	CLINICAL BACTERIOLOGY LECTURE	This course deals with the morphology and physiology of prokaryotes, rickettsia, and atypical bacteria and their role in infection and immunity. Emphasis is made on the isolation and identification of the clinically significant bacteria as well as the susceptibility testing in aid of diagnosis and treatment. Infection control protocol and the molecular characterization of the etiologies of diseases are integrated into the discussion.

	CLINICAL BACTERIOLOGY LABORATORY	Bacteriology Laboratory is a course that covers the concepts of bacterial cell structure, physiology, metabolism, and their role in infection and immunity. Emphasis is made on bacterial isolation and identification as well as the susceptibility testing as an aid in laboratory diagnosis for treatment.
	HEMATOLOGY 1 LECTURE	The course deals with the study of blood as a tissue and pathophysiology of pathologic changes seen in the cellular elements of the blood. Emphasis is on laboratory diagnostic procedures.
	HEMATOLOGY 1 LABORATORY	The course deals with the study of the components and characteristics of blood as well as the different conditions associated with any abnormality of blood. Emphasis is on the different laboratory diagnostic procedures used in the diagnosis of certain diseases and disorders.
	IMMUNOLOGY AND SEROLOGY LECTURE	<p>Immunology-Serology is a four-unit course with 3 units lecture and 1 unit laboratory. The course is taken with simultaneous lecture and laboratory together.</p> <p>The course consists of three parts: Immunology, Serology, and Immunopathology. Immunology is the study of body defense mechanisms which mainly refer to the natural and adaptive immunity. This part deals with the cells, humoral factors and the development, regulations, and functions/ physiology of the immune system.. The second part is Serology, which is the study of various principles of antigen- antibody reactions and the applications of these principles in methods and procedures to diagnose infectious diseases caused by bacteria, viruses, mycoplasma, rickettsia, fungi and parasites. Immunopathology is about the disease conditions affecting the immune system particularly autoimmune diseases, immunodeficiency, and immunoproliferative states; it also deals with hypersensitivity reactions and graft rejection and tumor immunity.</p>
	IMMUNOLOGY AND SEROLOGY LABORATORY	<p>Immunology and Serology is (1) unit course. Serology deals with the study of blood (serum) antibodies and their reaction with antigens in vitro. Immunology deals with the process by which all organisms (including human beings) defend themselves against infection.</p> <p>The course deals with the study of different body processes involved in immunity. It also deals with the basic concepts of immunology and principles of serologic procedures, reading, interpretation of results and their clinical significance.</p>

	CLINICAL PARASITOLOGY LECTURE	The course deals with the study of human parasites, which are of medical importance, especially those that are commonly found in the Philippines. Emphasis is given in the morphology, epidemiology, pathogenicity, laboratory diagnosis of their specific diseases, distribution, life cycle, and control and preventive measures against infection. A review of human anatomy and physiology is also essential to the understanding of the course.
	CLINICAL PARASITOLOGY LABORATORY	The course deals with the study of human parasites which are of medical importance especially those that are commonly found in the Philippines. Emphasis is given in the morphology; epidemiology; pathogenicity; laboratory diagnosis of their specific diseases; distribution and life cycle as well as control and preventive measures against infection. Review on the human anatomy and physiology is also essential to the understanding of the course.
	PRINCIPLES AND STRATEGIES OF TEACHING IN MEDICAL LABORATORY SCIENCE	<p>This course is a 2-unit subject that deals with the principles and teaching and learning strategies in medical laboratory science/medical technology including adult learning and the roles of a medical laboratory scientist/medical technologist as a teacher in different settings. It also includes strategies that enhance critical thinking, clinical laboratory teaching, and assessing and evaluating learning.</p> <p>This course introduces prospective medical laboratory scientist with knowledge and understanding of the subject area which include foundation disciplines, structural components, and models of teaching and assessment strategies. These will provide the students with the theoretical underpinnings in teaching and develop concepts, skills, attitudes, values related to the subject area.</p>
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
3 RD YEAR	CLINICAL CHEMISTRY 2 LECTURE	Clinical Chemistry lecture is a 3-unit course that develops concepts and techniques that are applicable to Medical Laboratory Science. Its emphasis is on clinical enzymology, study and measurements of the electrolytes and acid-base balance, study of hormones and endocrinopathies, and monitoring of therapeutics. Tumor and nutriment markers, toxicology, analyses of substances of abuse and molecular biochemistry are all integrated into the discussion.

2 ND SEMESTER		The significance of the accurate assessment of the organ functions utilizing the various biochemical analytes is presented as the synopsis of the course.
	CLINICAL CHEMISTRY 2 LABORATORY	The course is a continuation of Clinical Chemistry 1 Laboratory that includes the study of the general concepts of clinical enzymology. It also deals with the application of laboratory techniques and procedures in the study of different electrolytes and water balance and acid-base physiology of blood gases.
	MED LAB SCIENCE RESEARCH PAPER WRITING AND PRESENTATION LECTURE	Research paper writing and presentation is a 2-unit course that deals with the completion of the research process started in introduction to research. Emphasis is on the presentation, analysis and interpretation of data and summary of findings and recommendations. The course deals also in the selection of the population, sampling techniques, the different tools for determining validity and reliability, the statistical tool for data analysis and interpretation. It includes also the format of a research report, writing a research report and preparing bibliography.
	MED LAB SCIENCE RESEARCH PAPER WRITING AND PRESENTATION LABORATORY	Research paper writing and presentation is a 2-unit course that deals with the completion of the research process started in introduction to research. Emphasis is on the presentation, analysis and interpretation of data and summary of findings and recommendations. The course deals also in the selection of the population, sampling techniques, the different tools for determining validity and reliability, the statistical tool for data analysis and interpretation. It includes also the format of a research report, writing a research report and preparing bibliography.
	MYCOLOGY AND VIROLOGY	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 and diagnostic method; modes of transmission, epidemiology; pathology; prevention and control of disease caused by viruses and fungi
	HEMATOLOGY 2 LECTURE	The course deals with the study of fundamentals of the pathophysiology and mechanism of coagulation, fibrinolysis and anti-coagulation of the blood. Emphasis is on the principles of complex laboratory tests of the hemostasis system.

	HEMATOLOGY 2 LABORATORY	This course deals with the performance of laboratory procedures that are employed in the assessment of hemostasis and coagulation. Emphasis is on the principles of complex laboratory tests of the hemostasis system and its clinical correlation.
	IMMUNOHEMATOLOGY (BLOOD BANKING) LECTURE	<p>IMMUNOHEMATOLOGY/ BLOOD BANKING is a 4 credit unit course, 3 credit hours for lecture and 1 credit unit for laboratory/ practical.</p> <p>This course has two main fields of study: Immunohematology which deals with the study of blood group specific antigens and antibodies, their characteristics and clinical associations. Blood banking proper deals with application of Immunohematology on transfusion medicine which involves blood bank organization, blood donation, preparation of blood and blood components, preservation, and transfusion therapy. The adverse effects of transfusion and diseases transmissible by transfusion are also discussed to give relevance to the proper selection of donors and proper preparation and transfusion of blood. Quality management of the blank bank is discussed also.</p> <p>The practical part / laboratory deals with the principles and methods of blood typing, antihuman globulin (AHG) testing (DAT and IAT), crossmatching, screening and identification of clinically significant antibodies; it deals with blood donor screening, blood collection, preservation and storage of blood, preparation of blood components and blood products, and their issuance for proper use in transfusion. Quality control and laboratory safety are observed.</p>
	IMMUNOHEMATOLOGY (BLOOD BANKING) LABORATORY	The course deals with the study and performance of laboratory tests and procedures in Blood Bank laboratory such as blood grouping, compatibility testing, identification of irregular antibodies, screening of donors to ensure the proper selection of blood for the prospective recipient. It also includes the performance of blood banking procedures such as blood collection, processing, preservation and preparation of blood components.
	HISTOPATHOLOGIC AND CYTOLOGIC TECHNIQUES LECTURE	The course deals with the study of the basic disease process, correlating the etiology of disease with the course of development of anatomic and clinical changes brought by the disease. It also deals with the study and identification of cells in the diagnosis of diseases using cytological techniques including the study of the histologic techniques essential in the production of histologic slides for the diagnosis of diseases including special staining procedures and other related techniques.

	HISTOPATHOLOGIC AND CYTOLOGIC TECHNIQUES LABORATORY	The course is divided into three. The first part deals with the study of basic disease processes, correlating the etiology of disease with the course of development of anatomic and clinical changes brought about by the disease. The second part is a study of the histologic techniques essential in the production of histologic slides for the diagnosis of diseases including special staining procedures. The third part is the study and identification of cells in the diagnosis of diseases using cytologic techniques.
	MOLECULAR BIOLOGY AND DIAGNOSTICS LECTURE	This course deals with a comprehensive overview of the fundamental principles of molecular biology and diagnostics, and explores the use of molecular techniques in the diagnosis of disease. It introduces basic concepts of structure and functions of nucleic acids, DNA and RNA chemistry, proteins, gene expression, chromosomal structure, gene mutations in molecular diagnostic techniques. The course addresses many direct and amplified nucleic acid test methods, isolation, extraction, identification and amplification techniques. Principles of molecular diagnostics, specimen handling, and the clinical applications, advantages, and disadvantages of molecular diagnostics are also covered.
	MOLECULAR BIOLOGY AND DIAGNOSTICS LABORATORY	This course deals with a broad exposure to several important techniques in molecular biology. The course addresses the concepts of a molecular biology laboratory operations, safety aspects, design and equipment, guidelines and regulations in molecular laboratory as well as the quality management. It deals also with the different molecular techniques such as nucleic acid isolation, separation, detection, amplification techniques and other nucleic acid based techniques.
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
4 TH YEAR	CLINICAL INTERNSHIP 1	The Medical Technology/Medical Laboratory Science Internship Training Program, in accordance to the CHED Memorandum Order 13 series of 2017, is in the fourth year level of Bachelor of Science in Medical Technology/Medical Laboratory Science course. It is an intensive practical and theoretical training in the different sections in the clinical laboratory namely, Clinical Chemistry, Hematology, Immunohematology (Blood Banking), Immunology, Serology, Microbiology, Urinalysis and Other Body Fluids (Clinical Microscopy), Parasitology,

1 ST SEMESTER		Histopathology/Cytology and other emergent technologies. It also emphasizes the development of proper value system.
	MEDICAL TECHNOLOGY ASSESSMENT PROGRAM 1	This is a 2-unit course which deals with the assessment in all the areas of Medical Laboratory Science, such as Clinical Chemistry, Immuno-Serology, Blood Banking/Immunoematology, Microbiology including Mycology and Virology, Hematology, Clinical Microscopy/ Analysis of Urine and Other Body Fluids, Parasitology and Histopathology, MT Laws and Lab management. Examinations are given in an hour followed by rationalization of the answers. This is conducted through team teaching with respect to the specialization of the faculty members assigned. This course is co-requisite with Clinical Internship-1 and Seminar 1.
	SEMINAR 1	Seminar 1 deals with the different professional courses in Medical Technology namely: Bacteriology, Mycology, Virology, Histopathologic Techniques, Med. Tech Laws & Ethics, Parasitology, CC 1, 2 and 3, Blood Banking, Hematology, Clinical Microscopy, Serology and Immunology. This course provides the students the opportunity to enhance their knowledge on special topics and review recent developments in the various fields of Medical Technology
SEMESTER AND YEAR LEVEL	COURSE/ SUBJECT	COURSE DESCRIPTION
4 TH YEAR 2 ND SEMESTER	CLINICAL INTERNSHIP 2	The Medical Technology/Medical Laboratory Science Internship Training Program, in accordance to the CHED Memorandum Order 13 series of 2017, is in the fourth year level of Bachelor of Science in Medical Technology/Medical Laboratory Science course. It is an intensive practical and theoretical training in the different sections in the clinical laboratory namely, Clinical Chemistry, Hematology, Immunoematology (Blood Banking), Immunology, Serology, Microbiology, Urinalysis and Other Body Fluids (Clinical Microscopy), Parasitology, Histopathology/Cytology and other emergent technologies. It also emphasizes the development of proper value system. The pre-requisite of this course is Clinical Internship 1.
	MEDICAL TECHNOLOGY ASSESSMENT PROGRAM 2	This 2-unit course is a continuation of MTAP-1, which deals with the assessment in all the areas of Medical Laboratory Science, such as Clinical Chemistry, Immuno-Serology, Blood Banking/Immunoematology, Microbiology including Mycology and Virology, Hematology,

		<p>Clinical Microscopy/ Analysis of Urine and Other Body Fluids, Parasitology and Histopathology, MT Laws and Lab management. Examinations are given in an hour followed by rationalization of the answers. This is conducted through team teaching with respect to the specialization of the faculty members assigned.</p> <p>The students are trained on testmanship with the aim of improving their analytical skills in answering case studies, and multiple choice questions bordering on higher order of learning.</p> <p>This course is co-requisite with Clinical Internship-2 and Seminar 2.</p>
	SEMINAR 2	<p>Seminar-2 is a 2-unit course which deals with more updated topics in the practice of medical technology. Seminars on various fields of specialization are conducted, whether the speakers are invited by the CMLS, or interns are encouraged to attend seminars conducted by the PASMETH and PAMET.</p>

PREPARED BY:

JOSEPHINE C. MILAN, MSMT, RMT
DEAN, CMLS

WYNDEL KAYE A. CATLI, RMT
ACADEMIC COORDINATOR, CMLS