



## **BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY**

### **Program Description**

Bachelor of Science in Medical Technology (BSMT) is a four-year program consisting of general education and professional courses. The fourth year level is the internship program of one-year in a CHED-accredited training laboratory with rotational duties in different sections such as Clinical Chemistry, Hematology, Microbiology, Immunohematology (Blood Banking), Immunology and Serology, Urinalysis and Other Body Fluids (Clinical Microscopy), Parasitology, Histopathologic/Cytologic Techniques, and other emergent technologies.

### **Program Outcomes**

1. The graduates have the ability to:
2. 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.
3. Demonstrate analytical and critical thinking skills in the workplace.
4. Engage in the collection, analysis, and projection of health information for improving the health care management system.
5. Demonstrate interpersonal skills, leadership qualities, and ethical practice and profession.
6. Apply research skills in relevant areas of Medical Technology/Medical Laboratory Science practice.
7. Participate in community – oriented activities.
8. Engage in life – long learning activities.
9. Demonstrate effective teaching and communication skills.



**BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY**

**FIRST YEAR**

**First Semester**

		No. of hrs.		RLE		Total Units	Pre-requisites	Co-requisites
		Lec	Lab	SL	C			
RCIREED01	Values and Leadership of Jesus Christ	2	0	0	0	2		
GEDCORE03	Purposive Communication	3	0	0	0	3		
PHYSEDUC1	Physical Education1	2	0	0	0	2		
GEDCORE06	Science, Technology, And Society	3	0	0	0	3		
RCICALL01	Computer Aided Language Learning Program 1	0	1	0	0	1		
MLSINOR01	Inorganic and Organic Chemistry	2	2	0	0	4		
MLSINFO02	Health Information System for Med Lab Science	2	1	0	0	3		
NSTPCWTS1	National Service Training Program	3	0	0	0	3		
MLSPRAC01	Principle of Medical Laboratory Science Practice 1	2	0	0	0	2		
<b>Total</b>		<b>20</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>24</b>		

**Second Semester**

		No. of hrs.		RLE		Total Units	Pre-requisites	Co-requisites
		Lec	Lab	SL	C			
RCIREED02	Lessons of Professionalism In the Bible	2	0	0	0	2		
GEDCORE01	Understanding the Self	3	0	0	0	3		
PHYSEDUC2	Physical Education	2	0	0	0	2	PHYSEDUC1	
MLSPRIN	Principles and Strategies of Teaching in Med Lab Science	2	0	0	0	2		
RCICALL02	Computer Aided Language Learning Program 2	0	1	0	0	1	RCICALL01	
MLSANLY11	Analytical Chemistry	2	2	0	0	4	MLSINOR01	
MLSAPHY01	Human Anatomy and Physiology with Pathophysiology	2	2	0	0	4		
NSTPCWTS2	National Service Training Program 2 (CWTS)	3	0	0	0	3	NSTPCWTS1	



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MLSAPHY01	Human Anatomy and Physiology with Pathophysiology	2	1	0	0	3	MLSPRAC01
<b>Total</b>		<b>24</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>25</b>	

## SECOND YEAR

### First Semester

		No. of hrs.		RLE		Total	Pre-	Co-
		Lec	Lab	SL	C	Units	requisites	requisites
GEDCORE05	The Contemporary	3	0	0	0	3		
MLSCOPU02	Community and Public Health for Med Lab Science	2	2	0	0	4		
RCICALL03	Computer Aided Language Learning Program 3	0	1	0	0	1		
PHYSEDUC3	Physical Education 3	2	0	0	0	2	PHYSEDUC1	
MLSbioc12	Biochemistry for Med Lab Science	3	2	0	0	5	MLSANLY11	
GEMANDATE	Life and Works of Rizal	3	0	0	0	3		
GEDCORE07	Ethics	3	0	0	0	3		
GEDCORE04	Mathematics in the Modern World	3	0	0	0	3		
MLSHIST12	Human Histology	1	1	0	0	2	MLSAPHY01	
<b>Total</b>		<b>20</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>26</b>		

### Second Semester

		No. of hrs.		RLE		Total	Pre-	Co-
		Lec	Lab	SL	C	Units	requisites	requisites
RCICALL04	Computer Aided Language Learning Program 4	0	1	0	0	1		
GEDCORE02	Readings in Philippines History	3	0	0	0	3		
MLSMNGT02	Laboratory Mangement	2	0	0	0	2		
MLSSTAT02	Biostatistics and Epidemiology	2	1	0	0	3		
PHYSEDUC4	Physical Education 4	2	0	0	0	2	PHYSEDUC1	
GEDCORE08	Art Appreciation	3	0	0	0	3		
MLSBACT12	Clinical Bacteriology	3	2	0	0	5	MLSAPHY01 MLSBIOC12	
MLSBACT12	Clinical Parasitology	2	1	0	0	3	MLSAPHY01 MLSBIOC12	
<b>Total</b>		<b>17</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>22</b>		



## THIRD YEAR

### First Semester

		No. of hrs.		RLE		Total Units	Pre-requisites	Co-requisites
		Lec	Lab	SL	C			
MLSCYTO13	Cytogenetics	2	0	0	0	2	MLSAPHY01 MLSBIOC12	
MLSCLIN13	Clinical Chemistry 1	3	2	0	0	5	MLSAPHY01 MLSBIOC12	
MLSHEMA13	Hematology 1	3	1	0	0	4	MLSAPHY01 MLSBIOC12	
MLSHIST23	Histopathologic and Cytologic Techniques	2	1	0	0	3	MLSHIST12	
MLSIMSE23	Immunology and Serology	3	1	0	0	4	MLBACT12	
MLSAUBF13	Analysis of Urine and Body Fluids	2	1	0	0	3	MLSAPHY01 MLSBIOC12	
GEDELEC01	Great Books	3	0	0	0	3		
<b>Total</b>		<b>18</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>24</b>		

### Second Semester

		No. of hrs.		RLE		Total Units	Pre-requisites	Co-requisite
		Lec	Lab	SL	C			
MLSCLIN23	Clinical Chemistry 2	3	2	0	0	5	MLSCLIN13	
MLSMOLB23	Molecular Biology and Diagnostics	1	2	0	0	3	MLSBACT12 MLSCYTO13	
MLSHEMA23	Hematology 2	2	1	0	0	3	MLSHEMA13	
MLSIMHE23	Immunoematology	3	1	0	0	4	MLSIMSER23	
MLSLAW03	Med Tech Laws and Bioethics	3	0	0	0	3		
MLSMYCO23	Mycology and Virology	2	0	0	0	2	MLSBACT12	
GEDELEC06	Living in the IT Era	3	0	0	0	3		
<b>Total</b>		<b>17</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>23</b>		

## FOURTH YEAR

### First Semester

		No. of hrs.		RLE		Total Units	Pre-requisites	Co-requisites
		Lec	Lab	SL	C			
MLSRSCH34	Intro to Med Tech Science Research	1	1	0	0	2	All Course	
GEDELEC08	The Entrepreneurial Mind	3	0	0	0	3		
MLSNTRN34	Clinical Internship 1	0	12	0	0	12	All Course	
MLSASSE34	Medical Technology Assessment Program 1	2	0	0	0	2	All Course	



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MLSSEM34	Seminar 1	2	0	0	0	2	All Course
<b>Total</b>		<b>8</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>21</b>	

## Second Semester

		No. of hrs.		RLE		Total	Pre-	Co-
		Lec	Lab	SL	C	Units	requisites	requisite
MLSRSCH44	Research Paper Writing and Presentation	1	2	0	0	3	MLSRSCH34	
MLSNTR44	Clinical Internship 2	0	12	0	0	12	MLSNTR34	
MLSASSE44	Medical Technology Assessment Program 2	2	0	0	0	2		
MLSSEMI44	Seminar 2	2	0	0	0	2	MLSSEMI34	
<b>Total</b>		<b>5</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>19</b>		



## SUMMARY OF REQUIRED COURSES Bachelor of Science In Medical Technology

	Number of	RLE/ Courses Required	Lec	Lab	Total Subtotal	Units
<b>Core Courses</b>						24
Understanding the Self	1		3	0	3	
Readings in Philippine History	1		3	0	3	
The Contemporary World	1		3	0	3	
Mathematics in the Modern World	1		3	0	3	
Purposive Communication	1		3	0	3	
Art Appreciation	1		3	0	3	
Science, Technology and Society	1		3	0	3	
Ethics	1		3	0	3	
<b>Elective Courses</b>						9
Great Books	1		3	0	3	
Living in the IT Era	1		3	0	3	
Entrepreneurial Mind	1		3	0	3	
<b>The Life and Works of Rizal</b>						3
The Life and Works of Rizal	1		3	0	5	
<b>Other Courses</b>						14
Physical Education	4		2	0	8	
National Service Training Program (NSTP 1 and 2)	2		3	0	6	
<b>Major Courses</b>						25
Inorganic and Organic Chemistry	1		2	2	4	
Analytical Chemistry	1		2	2	4	
Biochemistry for Med Lab Science	1		3	2	5	
Human Anatomy & Physiology with Pathophysiology	1		2	2	4	
Principles and Strategies of Teaching In Med Lab Science	1		2	0	2	
Biostatistics & Epidemiology	1		2	1	3	
Health Information System for Med Lab Science	1		2	1	3	
<b>Other Institutional Courses</b>						8
Computer Aided Learning Program 1	1		1	0	1	
Computer Aided Learning Program 2	1		1	0	1	
Computer Aided Learning Program 3	1		1	0	1	
Computer Aided Learning Program 4	1		1	0	1	
Values and Leadership of Jesus	1		2	0	2	



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Lessons of Professionalism in the Bible	1	2	0	2	
<b>Professional Courses</b>					100
Principle of Medical Laboratory Science Practice 1	1	3	0	3	
Principle of Medical Laboratory Science Practice 2	1	2	1	3	
Community and Public Health for Med Lab Science	1	2	2	4	
Human Histology	1	1	1	2	
Molecular Biology and Diagnostics	1	1	2	3	
Med Tech Laws and Bioethics	1	3	0	3	
Cytogenetics	1	2	0	2	
Clinical Chemistry 1	1	3	2	5	
Clinical Bacteriology	1	3	2	5	
Clinical Parasitology	1	2	1	3	
Hematology 1	1	3	1	4	
Histopathologic and Cytologic Techniques	1	2	1	3	
Laboratory Management	1	2	0	2	
Clinical Chemistry 2	1	3	2	5	
Hematology 2	1	2	1	3	
Immunology and Serology	1	3	1	4	
Immunochemistry	1	3	1	4	
Analysis of Urine and Body Fluid	1	2	1	3	
Mycology and Virology	1	2	0	2	
Seminar 1	1	2	0	2	
Seminar 2	1	2	0	2	
Intro to Med Lab Science Research	1	1	1	2	
Research Paper Writing and Presentation	1	1	2	3	
Clinical Internship 1	1	0	12	12	
Clinical Internship 1	1	0	12	12	
Medical Technology Assessment Program 1	1	2	0	0	
Medical Technology Assessment Program 1	1	2	0	0	
			<b>Total</b>		<b>183</b>



**MAJOR COURSE DESCRIPTION  
Bachelor of Science in Medical Technology**

**MLSINOR01                                      4 units  
INORGANIC                                      AND                                      ORGANIC  
CHEMISTRY**

This course is designed to introduce students to chemistry as a central science and its uses in other field of related sciences. Furthermore, the course trained the students the importance of measurements, acids, bases and salts and the properties and preparations of solutions. The organic chemistry portion introduces the students to the various classes of organic compounds - hydrocarbons, alcohols, esters, acids, alkalis, aldehydes, ketones, amines, amides, thiols and aromatic compounds, all of which are carbon containing and essential components in all living organisms.

biology designed to prepare students in their professional subjects in the field of medical laboratory science. The course deals with metabolic interaction of organic molecules in living cells in providing energy, synthesis of other organic compounds and utilization of new technology to address abnormalities and deficiencies in the body cells. Visual reinforcement of key concepts are highlighted so that students appreciate and realize the real-life application of the concepts. Furthermore, the contents are developed to address the needs of the 21st century learners.

**MLSANLY11                                      4 units  
ANALYTICAL CHEMISTRY**

This course is composed of two parts: Qualitative and Quantitative Analysis.

**MLSAPHY01                                      4 units  
HUMAN                                      ANATOMY                                      AND  
PHYSIOLOGY                                      WITH  
PATHOPHYSIOLOGY**

This course deals with the human being in terms of its adaptations, structural framework, with emphasis on pathophysiological regulations, adaptive mechanisms; giving and integrating lecture and laboratory experiences which provide exercises and techniques in clinical situations. Emphasis of the course is given to correlation in physiologic and laboratory diagnosis.

Qualitative analysis is the determination of the kind of elements in a substance. Calculations and discussions in qualitative chemistry are focused on solutions, oxidation-reduction reaction, homogeneous and heterogeneous equilibria. It challenges students in applying their skills and knowledge to the analysis of the unknown in the laboratory.

**MLSPRIN01                                      2 units  
PRINCIPLES AND STRATEGIES OF  
TEACHING MEB LAB SCIENCE**

This course deals with the principles and teaching/learning strategies in health education including adult learning, the roles of teacher/medical technologist in different settings. It further provides experiences to develop beginning skills in designing and applying a teaching plan

**MLSBIOC12                                      5 units  
BIOCHEMISTRY FOR MEB LAB  
SCIENCE**

Biochemistry is a 5 unit course enriched with knowledge of the fundamentals of organic and inorganic chemistry and





that enhances critical thinking, clinical laboratory teaching, assessing and evaluating learning.

**MLSSTAT02** **3 units**  
**BIostatISTICS AND EPIDEMIOLOGY**

This course is designed to introduce basic epidemiological and biostatistical principles, concepts, and procedures for the surveillance and investigation of health-related states or events. It also introduces data and analyzing disease incidence and prevalence to provide analysis leading to effective interventions and preventions, and it focuses to review sources of information, associations between diseases and precipitating factors, and statistical representations. It also focused on discussing the wide array of approaches and technologies implemented to gather this information and the statistical issues involved from initial data processing steps to end stage research objectives and to review basic

applied statistical concepts tools and to introduce the SPSS computer network and statistical software.

**MLSINFO02** **3 units**

This course introduces the basic concepts related to the health information system in health care. It addresses the use of information technologies in healthcare organizations. It focuses on the use of informatics, computers, and other information and telecommunications technologies to support effective and efficient healthcare delivery. It describes the tools and Processes for collecting, storing, and retrieving health care data. Emphasis will be placed on web-based applications of health information system and electronic health records. In addition, the course will clarify the essential tools for monitoring and evaluation of information system and the contextual factors influencing it.

## PROFESSIONAL COURSE DESCRIPTION

**MLSPRAC01** **3 units**  
**PRINCIPLE OF MEDICAL LABORATORY SCIENCE PRACTICE 1**

This course is designed to introduce students to the field of medical laboratory science including the historical foundation of the profession and its major disciplines (Microbiology and Clinical Parasitology, Clinical Chemistry, Clinical Microscopy, Immunoserology, Immunohematology and Transfusion Medicine, Hematology, General Pathology and Histopathologic Techniques and Analysis of urine and other body fluids). Students are introduced to the different laboratory safety protocols such as specimen

collection, handling and processing; the risks and treatment and its waste management practices.

**MLSPRAC11** **3 units**  
**PRINCIPLE OF MEDICAL LABORATORY SCIENCE PRACTICE 2**

This course is designed to introduce students to the basic principles and practices of medical laboratory science including the different phlebotomy (e.g. venipuncture, capillary puncture, and arterial blood collection), the patient preparations prior to testing, specimen collection, processing, and the different types of laboratory tests, including the point-of-care testing and the reasons in performing them.



**MLSCOPU02** **4 units**  
**COMMUNITY AND PUBLIC HEALTH FOR MED LAB SCIENCE**

Deals with the study of the foundations of community health, including human ecology, demography and epidemiology with emphasis on the promotion of community, public and environment health.

**MLSHIST12** **2 units**  
**HUMAN HISTOLOGY**

This course deals with the study of the fundamentals of cells, tissues and organs with emphasis on microscopic structure, characteristics and functions. Moreover, the course provides basic knowledge on the microscopic anatomy and functions of selected organ system in the body.

**MLSMOLB23** **3 units**  
**MOLECULAR BIOLOGY AND DIAGNOSTICS**

This course deals with the study of the overview of the fundamental principles of clinical molecular diagnostics and explores the use molecular techniques in the diagnosis of diseases. It includes nucleic acid structure and functions, genetics, DNA chemistry, introduction to nucleic acid isolation, identification and amplification techniques, components of a molecular laboratory and evaluation of controls to validate obtained results.

**MLSLAWS03** **3 units**  
**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 5527. 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 to health. It also includes the discussion of philosophical principles and virtues of health care providers.

**MLSCYTO13** **2 units**  
**CYTOGENETICS**

Deals with the concepts related to the study of heredity and inheritance: genetic phenomena, sex determination, defects in related to human inheritance, nuclei acids (DNA & RNA) and with emphasis on their application to medical science

**MLSCLIN13** **5 units**  
**CLINICAL CHEMISTRY 1**

The course discusses the physiological important substances found in the body fluids particularly blood. Develops knowledge and understanding of the basic concepts and principles of their metabolism, laboratory analyses, and their diagnostic utility. The course also deals with instrumentation and evaluation of the accuracy and precision of the procedures using analytical techniques. This course also emphasize the detection of biomarkers used for the diagnosis of human diseases and its clinical significance.

**MLSBACT12** **3 units**  
**CLINICAL BACTERIOLOGY**

This course covers the morphology and physiology of bacteria, rickettsiae and other significant atypical bacteria, and their role in infection and immunity. Emphasis is made on their isolation and identification and susceptibility testing as aid in laboratory diagnosis.

**MLSPARA12** **5 units**  
**CLINICAL PARASITOLOGY**

This course deals with the study of animal parasite of medical importance to man especially those commonly found in



the Philippines. It includes characteristic of the parasites by means of its morphology, life cycle, epidemiology, symptomatology, pathogenecity, laboratory diagnosis of their specific diseases, distribution and preventive measures against infection. Furthermore, routine manual procedures and other laboratory procedures are discussed as to aid in laboratory diagnosis.

### **MLSHEMA13** **4 units** **HEMATOLOGY 1**

This course deals with the study of fundamentals of blood as a tissue and the pathophysiology of the cellular elements of the blood. Emphasis is on the laboratory diagnostic procedures.

### **MLSHIST23** **3 units** **HISTOPATHOLOGIC & CYTOLOGIC TECHNIQUES**

The course is divided into three. The first part deals with the study of the basic disease process, correlating the etiology of disease with the course of development and anatomic and clinical changes brought about the disease. The second part is 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. The third part is the study and identification of cells in the diagnosis of diseases using cytologic techniques.

### **MLSMNGT02** **2 units** **LABORATORY MANAGEMENT**

This course deals with the study of basic concepts of management as applied in the administrative aspects of laboratory operations. This includes planning, organizing, directing, controlling/evaluating human, physical

and financial resources in the clinical laboratory. Quality systems and safety are also discussed.

### **MLSCLIN23** **2 units** **CLINICAL CHEMISTRY 2**

This course is a continuation of the Clinical Chemistry 1, and deals with the study of liver function tests, clinically significant enzymes, electrolytes, acid-base balance, blood gas parameters and tumor makers. It involves the knowledge and understanding of the basic concepts and principles of their metabolism, laboratory analysis, and pathophysiology. Quality assurance and safety are given due emphasis.

### **MLSHEMA23** **3 units** **HEMATOLOGY 2**

This course deals with the study of fundamentals blood as a tissue, the pathophysiology and the mechanism of coagulation and hemostasis, with emphasis on laboratory diagnostic procedures.

### **MLSIMSE23** **4 units** **IMMUNOLOGY AND SEROLOGY**

Covers basic concepts of immunology and principles of serological procedures, reading, interpretation of results and their clinical significance.

### **MLSIMHE23** **4 units** **IMMUNOHEMATOLOGY**

This course deals with the study of the fundamentals of blood specific antibodies and antigens, mechanisms of blood typing and crossmatching, Coomb's test, detection of antibodies and measurement of titers, as well as the proper way of reading and reporting results. The students are also taught certain screening tests done on prospective donors for blood donations,



techniques in bleeding, proper labeling, storing and disposal of donor blood.

## **MLSAUBF 3 units** **ANALYSIS OF THE URINE AND BODY FLUIDS**

Deals with the study of the gross chemical and microscopic analyses of the different 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.

## **MLSMYCO23 2 units** **MYCOLOGY AND VIROLOGY**

Deals with the study of morphologic and biologic characteristics of fungal and viral agents of disease. It also includes the study of laboratory diagnostics methods, modes of transmission, epidemiology, pathology, prevention and control of disease caused by viruses and fungi.

## **MLSSEMI34 2 units** **SEMINAR 1**

This course provides students with an opportunity to apply the principles in the different fields of the Medical Technology profession. Emphasis is given on process skills in conducting and organizing a seminar, special topics on mental health awareness and career opportunities.

## **MLSSEMI44 2 units** **SEMINAR 2**

This course provides students with an opportunity to apply the principles in the different fields of the Medical Technology profession. Emphasis is given on process skills in conducting and organizing a seminarspecial topics in licensed professional course.

## **MLSRSCH34 2 units** **INTRO TO MED LAB SCIENCE RESEARCH**

This course introduces students in research undertakings. Students are trained to conduct scientific research that will provide explanations to problems raised in the medical technology field. Includes problem identification, literature search, limitations and scope of study, sampling, statistical analysis, budget and GANTT chart preparation. This serves as a venue for the application of their knowledge in technical writing and biostatistics.

## **MLSRSCH44 3 units** **RESEARCH PAPER WRITING PRESENTATION**

This course deals with general concepts of a research process. It also includes the study of the rudiments in preparation of a research including identification of a problem, scope and limitation research design, statistical analysis and interpretation of results as well as conclusion and recommendations.

## **MLSNTR34 12 units** **CLINICAL INTERNSHIP 1**

This program is composed of intensive practical and theoretical training in the different sections in clinical laboratory namely: Clinical Chemistry, Hematology, Immunohematology (Blood Banking), Immunology, Serology, Microbiology, Clinical Microscopy, Parasitology, Histopathology and Cytology.

## **MLSNTR44 12 units** **CLINICAL INTERNSHIP 2**

This internship program composed of intensive practical and theoretical training in the different sections in clinical laboratory namely: Clinical Chemistry, Hematology, Immunohematology (Blood



Banking), Immunology, Serology, Microbiology, Clinical Microscopy, Parasitology, Histopathology and Cytology.

**MLSASSE34** **2 units**  
**MEDICAL TECHNOLOGY**  
**ASSESSMENT PROGRAM 1**

Provides a review of the theories, concepts, principles, procedures and updates basic to the practice of medical technology profession. This also

includes test taking strategies and techniques.

**MLSASSE44** **2 units**  
**MEDICAL TECHNOLOGY**  
**ASSESSMENT PROGRAM 2**

Provides a review of the theories, concepts, principles, procedures and updates basic to the practice of medical technology profession. This also includes test taking strategies and techniques.

## INSTITUTIONAL COURSE DESCRIPTION

**GEDCORE01** **3 units**  
**UNDERSTANDING THE SELF**

This course deals with the different aspects and concepts of self in terms of physical, emotional, cognitive, social, moral and responsible self. It covers topics about the nature of personal identity, enhancing one's self-image and assessing self-improvement. It aims to assist students in developing self-awareness, understanding and accepting oneself and others. As the course progresses, it will guide them to realize their vision in life and increase commitment to find meaning in their life.

**GEDCORE02** **3 units**  
**READINGS IN PHILIPPINE HISTORY**

This course critically analyses Philippine History from multiple perspectives through the lens and selected primary sources. Priority will be given to primary sources that describe the important turning points in Philippine History from prehistoric times up to the contemporary period and articulate various perspectives. The approach, though historical, will deal with interdisciplinary subjects so as to broaden and deepen

the student's understanding of Philippine political, economic, social and cultural history and equip the learner with the competencies necessary to analyze and evaluate different types of information: print, visual and audio visual and quantitative. The end goal is to develop the historical and critical consciousness of the students so that they will become versatile, broad-minded, morally upright and responsible citizens.

**GEDCORE03** **3 units**  
**PURPOSIVE COMMUNICATION**

Purposive communication is a three-unit course that develops students' communicative competence and enhances their cultural and intercultural awareness through multimodal tasks that provide them opportunities for communicating effectively and appropriately to a multicultural audience in a local or global context. It equips students with tools for critical evaluation of a variety of texts and focuses on the power of language and the impact of images to emphasize the importance of conveying messages responsibly. The





knowledge, skills, and insights that students gain from this course may be used in their other academic endeavors, their chosen disciplines, and their future careers as they compose and produce relevant oral, written, audio-visual and /or web-based output for various purposes.

## **GEDCORE04** **3 units** **MATHEMATICS IN THE MODERN WORLD**

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 environment) and 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 and a rich language in itself (and the science) governed by logic 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 the test the students'

understanding and capacity. (CMO No. 20, series of 2013)

## **GEDCORE05** **3 units** **THE CONTEMPORARY WORLD**

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 people and places around the globe. To this end, the course provides an overview of the 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.

## **GEDCORE06** **3 units** **STS- SCIENCE, TECHNOLOGY AND SOCIETY**

The course deals with the interaction between science and technology and social, cultural, political and economic contexts that shape and are shaped by them (CMO No. 20, series of 2013)

The 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.

## **GEDCORE07** **3 units** **ETHICS**

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 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).

## **GEDCORE08** **3 units** **ART APPRECIATION**

Art Appreciation is a three-unit course that develops students' ability to appreciate, analyze, 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 their rootedness in Filipino culture.

## **BICHMSTRY** **5 units** **BIOCHEMISTRY**

Chemistry for the Life Sciences is a course for students typically majoring in nursing. The course gives a general knowledge of chemistry (mostly inorganic) with an emphasis on health-related topics and problem-solving strategies. Descriptive and quantitative principles are discussed. This course also introduces the fundamental principles of biochemistry and biochemical reaction cycles. Its deals with the study of the properties, structures, functions, absorption, digestion and metabolism of proteins, enzymes, carbohydrates and lipids.

## **MICROPARA** **4 units** **MICROBIOLOGY** **AND** **PARASITOLOGY**

This is an introductory course designed to assist students in the study of the important microorganisms and parasites. The first part covers the fundamentals of Microbiology (forms, morphology, arrangement and physiology of bacteria,



fungi, viruses and protozoa) mechanics of causing diseases, their resistance to treatment and the body's immune defense against them. The second part briefly covers the study of human parasites (mode of transmission, life cycle and disease process) which are of medical importance.

Emphasis of this course is given on pathology, treatment and prevention of various diseases.

### **CO PHYSICS** **3 units** **COLLEGE PHYSICS**

It is a lecture and laboratory course. The course deals with the basic concepts of Physics, such as matter and energy and their interaction. Conceptual approach is used. Covers the ideas of motion, forces, momentum and energy from within the framework of Newton's Laws. The principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces are studied with emphasis on problem solving. Laboratory experiments supporting the topics are included. The students are provided with laboratory activities designed to strengthen classroom discussions and lectures.

### **EARTH SCIE** **3 units** **EARTH SCIENCE**

Earth Science and the Environment is a 3-unit course intended for college students who are taking a portion of their college general requirements. The course will cover basic topics in geology (major minerals and rock types, rock-forming processes, time scales; temperatures, pressures, compositions,

structure of the Earth, and measurement techniques; geologic structures and relationships observable in the field; sediment movement and landform development by moving water, wind, and ice; crustal processes and planetary evolution in terms of global plate tectonics) and astronomy (stars, solar system, interstellar medium, the galaxy, and the universe). The course will also cover various environmental issues such as global warming, climate change, geological hazards, pollution, and renewable energies

### **GEMANDATE** **3 units** **LIFE AND WORKS OF RIZAL**

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 writings, particularly the novels *Noli Me Tangere* and *El Filibusterismo*, some of his essays, and various correspondences.

### **RCIREED01** **2 units** **VALUES AND LEADERSHIP OF JESUS CHRIST**

Values and Leadership of Jesus Christ is designed to give student's adequate knowledge about Catholic Faith and Doctrine in the light of the Sacred Scripture, Sacred Tradition and Church Documents. It exposes students to the many misconception and corrections about Catholic Faith which led them to carry out the sound and authentic Catholic Faith in their day to day lives. 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).

The Course also tackles the Values and Leadership of Jesus Christ as portrayed from the Sacred Scriptures and Church social teachings. It identifies the different kinds of Christian Leadership a student of Riverside College must become.

## **RCIREED02** **2 units** **LESSON OF PROFESSIONALISM FROM THE BIBLE**

The Lesson of Professionalism from the Bible (Sacred Scriptures) is designed to give students the adequate knowledge about the fundamental biblical descriptions according to the Catholic Church teachings. It exposes students the right way in understanding the Bible as a means for them to share their experiences and lessons taken from the biblical chapters and verses discussed. The Course tackles the value of professionalism which can be associated to the different human characters discussed in the subject. This is organized according to the connectivity of the Sacred Scriptures to the Trinitarian perspectives of God the Father, God the Son and God the Holy Spirit

## **RCIPHYSICS** **3 units** **COLLEGE PHYSICS**

The course deals with the basic concepts of Physics, such as matter and energy and their interaction. Conceptual approach is used. Covers the ideas of torque, motion, forces, momentum and energy from within the framework of Newton's Laws. The principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound,

physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces are studied with emphasis on problem solving.

## **GEDELEC01** **3 units** **GREATBOOKS**

The course aims to introduce students to the international dimension of the Western literary tradition. Throughout this history, readers & writers were familiar with works in a variety of languages, & the great books all arise within a multilingual context. The course will draw on literatures written in English. The course aims to build up a sense of this broad context, & to give students the opportunity to read some "great books" with the understanding that this brings.

## **GEDELEC04** **3 units** **PHILIPPINE POPULAR CULTURE**

This course locates popular culture as a historico-spatial condition and phenomenon of Philippine modernity. It provides the students with critical perspective in understanding and way of knowing popular culture in the Philippines. This course also provides multi-disciplinal attention on how art, music, and literature arising from opportunities and demands of mass audiences, markets and mass media and their social, economic, and political contexts.

## **GEDELEC05** **3 units** **PEOPLE AND THE EARTH'S ECOSYSTEM**

This course explores the ways in which human activity impacts the natural environment and how modification of environment can eventually have



significant consequences to human activity. Topics include environmental challenges, such as air and water pollution, population growth and distribution, global atmospheric changes, ecosystems and evolution, agriculture and food resources and renewable and non-renewable energy resources.

## **GEDELEC06** **3 units** **LIVING IN THE IT ERA**

This course described the science, culture and ethics of Information Technology, in various uses and applications as well as its influence on culture and society. It is also designed to introduce the students to more advanced applications that can be used for research, communication, and electronic presentations.

## **GEDELEC07** **3 units** **GENDER AND SOCIETY**

Gender as a social construction, it's role in the society and impact on different facets of societal life. This course critically examines the ways gender informs the social world in which we live. It exposes the "common sense" world of gender around us, considers how we develop our gendered identities, explores the workings of the institutions that shape our gendered lives and leads to an understanding of the between gender and the social structure

## **GEDELEC08** **3 units** **THE ENTREPRENEURIAL MIND**

This course introduces the concept of an entrepreneurial mindset and encourages the development of mindset and its associated enterprising skills, such as solving problems creatively,

communicate persuasively, work effectively in teams and understand individual and organizational impact.

## **RCICALL1** **1 unit** **NEW DYNAMIC ENGLISH**

RCI Computer Aided Language Learning (RCI CALL) is designed to equip students the needed skills in English communication such as reading, listening, speaking and writing with the use of courseware and other references. RCI CALL embraces a wide range of information and communications technology applications and approaches to teaching and learning the universal language. The 21st century learners' interest in technology will be aided by the said program into an interactive and fun learning experience. Thus, the RCI CALL programs can be used by teachers as technology partners in running their classrooms and solve problems like capturing students' attention and maintaining their interests. The nature of RCI CALL ensures that learning is a two-way street — dynamic and rigid.

RCICALL01 (NEW DYNAMIC ENGLISH) focuses on writing skills and uses well-designed scope and sequence. It promotes long term learning and keeps learners engaged with language. Since it focuses on the writing skill, it introduces students to the norms of academic writing

## **RCICALL2** **1 unit** **ENGLISH FOR SUCCESS**

RCI Computer Aided Language Learning (RCI CALL) is designed to equip students the needed skills in English communication such as reading, listening, speaking and writing with the



use of courseware and other references. RCI CALL embraces a wide range of information and communications technology applications and approaches to teaching and learning the universal language. The 21st century learners' interest in technology will be aided by the said program into an interactive and fun learning experience. Thus, the RCI CALL programs can be used by teachers as technology partners in running their classrooms and solve problems like capturing students' attention and maintaining their interests. The nature of RCI CALL ensures that learning is a two-way street — dynamic and rigid.

RCI CALL 2 (ENGLISH FOR SUCCESS) Improves students reading comprehension and develops their English vocabulary. Also, It helps them master the foundational reading skills and most importantly, it enhances their English language skills.

### **RCICALL3** **1 unit** **CLEAR SPEECH WORKS**

RCI Computer Aided Language Learning (RCI CALL) is designed to equip students the needed skills in English communication such as reading, listening, speaking and writing with the use of courseware and other references. RCI CALL embraces a wide range of information and communications technology applications and approaches to teaching and learning the universal language. The 21st century learners' interest in technology will be aided by the said program into an interactive and fun learning experience. Thus, the RCI CALL programs can be used by teachers as technology partners in running their classrooms and solve problems like

capturing students' attention and maintaining their interests. The nature of RCI CALL ensures that learning is a two-way street — dynamic and rigid.

RCICALL03 (CLEAR SPEECH WORKS) focuses on Speaking skills, emphasizes the use of English language in expressing oneself orally and Improves students' oral communication and comprehension skills.

### **RCICALL4** **1 unit** **ADVANCE LISTENING**

RCI Computer Aided Language Learning (RCI CALL) is designed to equip students the needed skills in English communication such as reading, listening, speaking and writing with the use of courseware and other references. RCI CALL embraces a wide range of information and communications technology applications and approaches to teaching and learning the universal language. The 21<sup>st</sup> century learners' interest in technology will be aided by the said program into an interactive and fun learning experience. Thus, the RCI CALL programs can be used by teachers as technology partners in running their classrooms and solve problems like capturing students' attention and maintaining their interests. The nature of RCI CALL ensures that learning is a two-way street- dynamic and rigid.

RCICALL04 (Advanced Listening) is a useful and interesting tool because it develops the listening strategies, vocabulary and critical thinking skills of students. It also enhances their high-level listening and note taking skills. It emphasizes on English sounds, stress, and intonation pattern.



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