

# Academic Programs Booklet

## College of Health and Sport Sciences

# 2025



Prepared By: VP For Academic Programs and Graduate Studies Office

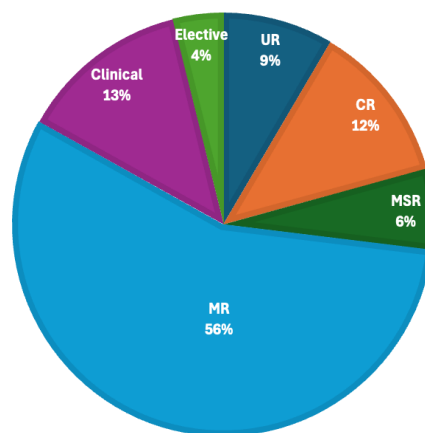
---

## Bachelor of Science in Medical Laboratory Sciences

---

### Program Components

Course Type	CRD
University Requirement (UR)	11
College Requirement (CR)	16
Major Support Requirement (MSR)	08
Major Requirement (MR)	90
Major Elective (ME) <sup>1</sup>	2
General Studies Elective (GSE) <sup>2</sup>	3
Total Credit (CRD)	130
<i>Clinical courses included as major requirements</i>	<i>17</i>



## Detailed Study Plan

### Year 1- Semester 1

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
ISLM101	Islamic Culture	3	0	0	3	UR	None	No	Yes	Arabic Language and Islamic Studies / College of Arts
ARAB110	Arabic Language Skills	3	0	0	3	UR	None	No	Yes	Arabic Language and Islamic Studies / College of Arts
ENG115	English for Healthcare Professionals 1	2	2	0	3	CR	None	No	Yes	ENG-CHSS
LFS117	Anatomy and Physiology for MLS	3	2	0	4	CR	None	No	Yes	AHD-CHSS
MLS100	Introduction to Medical Laboratory Sciences and biosafety	2	0	0	2	MR	None	Yes	Yes	AHD-CHSS
MLS 101	Phlebotomy	0	2	0	1	MR	None	Yes	No	AHD-CHSS

**Total = 16 credits**

### Year 1- Semester 2

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
HRLC107	Human Rights	2	0	0	2	UR	None	No	Yes	مركز العيادة القانونية كلية / وحقوق الإنسان الحقوق
ENG125	English for Healthcare professionals 2	2	2	0	3	CR	ENG115	No	Yes	ENG-CHSS
CGS102	Chemistry	3	0	0	3	MSR	None	No	Yes	AHD-CHSS
MLS111	Clinical Laboratory Instrumentation	1	2	0	2	MR	None	Yes	Yes	AHD-CHSS
MLS112	Cell Biology	2	0	0	2	MR	None	Yes	Yes	AHD-CHSS
MLS113	Histology	2	2	0	3	MR	LFS117	Yes	Yes	AHD-CHSS
MLS214	Urine and Body Fluids Analysis	2	2	0	3	MR	LFS117	Yes	Yes	AHD-CHSS

**Total = 18 credits**

### Year 2- Semester 3

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
HIST122	Modern History of Bahrain and citizenship	3	0	0	3	UR	None	No	Yes	Social Sciences Department / College of Arts
PH211	Epidemiology	2	0	0	2	MSR	None	Yes	Yes	AHD-CHSS
MLS213	Basic pathology	3	0	0	3	MR	MLS113	Yes	Yes	AHD-CHSS
MLS216	Fundamentals of Microbiology	2	2	0	3	MR	None	Yes	Yes	AHD-CHSS
MLS219	Fundamentals of Biochemistry	2	2	0	3	MR	CGS102	Yes	Yes	AHD-CHSS
SBS122	Human Relations	3	0	0	3	GSE*	None	No	Yes	NUR-CHSS
SBS316	Fundamentals of Psychology and Sociology	3	0	0	3	GSE*	None	No	Yes	NUR-CHSS

GSE\* only 1 general studies elective will be selected. **Total = 17 credits**

### Year 2- Semester 4

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
HCA301	Leadership and Management in Healthcare Settings	3	0	0	3	MSR	None	Yes	No	College of Arts
MLS221	Clinical Chemistry I	2	2	0	3	MR	MLS 219	Yes	Yes	AHD-CHSS
MLS222	Medical Microbiology I	2	4	0	4	MR	MLS216	Yes	Yes	AHD-CHSS
MLS226	Haematology I	2	2	0	3	MR	LFS117	Yes	Yes	AHD-CHSS
MLS 230	Medical Parasitology	2	2	0	3	MR	MLS216	Yes	Yes	AHD-CHSS

**Total = 16 credits**

### Year 3- Semester 5

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
MLS312	Medical Immunology	2	2	0	3	MR	MLS213	Yes	Yes	AHD-CHSS
MLS313	Hematology II	2	2	0	3	MR	MLS 226	Yes	Yes	AHD-CHSS
MLS316	Clinical Chemistry II	3	2	0	4	MR	MLS221	Yes	Yes	AHD-CHSS
MLS317	Medical Microbiology II	2	4	0	4	MR	MLS222	Yes	Yes	AHD-CHSS
MLS318	Histological and Cytological Techniques	2	2	0	3	MR	MLS213	Yes	Yes	AHD-CHSS

**Total = 17 credits**

### Year 3- Semester 6

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
PH222	Biostatistics for Health Sciences	2	2	0	3	CR	None	Yes	Yes	AHD-CHSS
MLS323	Blood Coagulation	1	2	0	2	MR	MLS313	Yes	Yes	AHD-CHSS
MLS326	Human genetics	2	2	0	3	MR	MLS112	Yes	Yes	AHD-CHSS
MLS328	Toxicology and Therapeutic drug monitoring	2	0	0	2	MR	MLS316	Yes	Yes	AHD-CHSS
MLS330	Interdisciplinary clinical lab practicum	0	0	6	2	MR	MLS313, MLS316, MLS317	Yes	Yes	AHD-CHSS
MLS331	Forensic Science	1	2	0	2	MR	None	Yes	Yes	AHD-CHSS
MLS332	Food Microbiology	2	0	0	2	ME*	MLS317	Yes	Yes	AHD-CHSS
MLS333	Molecular diagnostics	2	0	0	2	ME*	MLS 316	Yes	Yes	AHD-CHSS
MLS334	Assisted Reproductive Techniques	2	0	0	2	ME*	MLS 316	Yes	Yes	AHD-CHSS

ME\* only 1 major elective will be selected.

**Total = 16 credits**

### Year 4- Semester 7

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
SBS320	Research Methods	2	2	0	3	CR	STAT272	Yes	Yes	AHD-CHSS
MLS 410	Quality Assurance in Lab Medicine	2	0	0	2	MR	MLS330	Yes	Yes	AHD-CHSS
MLS 413	Immunohematology	2	2	0	3	MR	MLS330	Yes	Yes	AHD-CHSS
MLS 418	Lab Cases Seminar	1	0	0	1	MR	MLS 330	Yes	Yes	AHD-CHSS
MLS 420	Medical Virology	2	0	0	2	MR	MLS216	Yes	Yes	AHD-CHSS
MLS421	Blood banking Practice	0	0	6	2	MR	MLS 312, Co:MLS 413,	Yes	Yes	AHD-CHSS
MLS424	Immunology & Serology Practice	0	0	6	2	MR	MLS312	Yes	Yes	AHD-CHSS
MLS 426	Research Project-I	0	3	0	1	MR	PH222 Co:SBS320	Yes	No	AHD-CHSS

**Total = 16 credits**

### Year 4- Semester 8

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
MLS427	Hematology Practice	0	0	9	3	MR	MLS 323	Yes	Yes	AHD-CHSS
MLS428	Clinical Microbiology Practice	0	0	9	3	MR	MLS317	Yes	Yes	AHD-CHSS
MLS429	Clinical biochemistry Practice	0	0	9	3	MR	MLS316	Yes	Yes	AHD-CHSS
MLS430	Histology and Cytology Practice	0	0	9	3	MR	MLS318	Yes	Yes	AHD-CHSS
MLS431	Research Project-II	0	6	0	2	MR	MLS 426	Yes	No	AHD-CHSS

**Total = 14 credits**

### Elective Courses

Course Code	Course Title	Course Hours				Course Type (as shown in credit hours distribution)	Pre-Requisite: specify if there is grade for completion	Major CGPA	Final Exam (Yes/No)	Department Offering
		LEC	LAB	CLN	CRD					
SBS122	Human Relations	3	0	0	3	GSE*	None	YES	YES	NUR-CHSS
SBS316	Fundamentals of Psychology and Sociology	3	0	0	3	GSE*	None	YES	YES	NUR-CHSS
MLS332	Food Microbiology	2	0	0	2	ME*	MLS317	YES	YES	AHD-CHSS
MLS333	Molecular diagnostics	2	0	0	2	ME*	MLS316	YES	YES	AHD-CHSS
MLS334	Assisted Reproductive Techniques	2	0	0	2	ME*	MLS316	YES	YES	AHD-CHSS

\*Only 1 of GSE courses will be required to fulfill degree requirement.

\* Only 1 of ME courses will be required to fulfill degree requirement.



## Major Courses' Description

Course Code:	<b>MLS100</b>	Course Title:	<b>Introduction to Medical Laboratory Sciences and biosafety</b>
This course introduces students to the fundamentals of medical laboratory sciences and biosafety. It covers the role of laboratory professionals, principles of diagnostic testing, and key biosafety practices. Emphasis is placed on laboratory safety protocols, specimen handling, waste management, and ethical responsibilities.			
Course Code:	<b>MLS101</b>	Course Title:	<b>Phlebotomy</b>
This course enables students to acquire the skills of blood collection in the clinical area under the supervision of a clinical instructor. Students will be exposed to a wide range of cases and patient age groups.			
Course Code:	<b>MLS111</b>	Course Title:	<b>Clinical Laboratory Instrumentation</b>
This course deals with the principles and applications of instrumentation used in clinical laboratories. Students will gain an understanding of the operation of various laboratory instruments essential for diagnostic testing. The curriculum covers spectrophotometry, fluorometry, chromatography, electrophoresis, Immunoassays and centrifugation. This course also provides an overview of the recent technological advancements in laboratory instrumentation and future perspectives.			
Course code	<b>MLS112</b>	Course Title:	<b>Cell Biology</b>
This course introduces the fundamental concepts of cell biology and the structure-function relationships of the various cellular components. The topics covered include key concepts of cell biology ranging from structure, function and related illnesses. Students will gain both theoretical knowledge and practical skills for analyzing cell structure and functions.			
Course code	<b>MLS113</b>	Course Title:	<b>Histology</b>
This course introduces students to the study of tissue structure and function at the microscopic level. The course focuses on identifying and understanding the roles of cells, tissues, and organs in the human body. Furthermore, it highlights how tissue organization supports various physiological functions.			
Course code	<b>MLS214</b>	Course Title:	<b>Urine and Body Fluid Analysis</b>
This course will provide the student with the knowledge and laboratory skills required to function effectively in a Urinalysis and Body Fluid laboratory. Urine formation, physical, physical, chemical analysis of urine and the microscopic examination of urinary sediment will be introduced. Urinary and metabolic diseases as they relate to urinalysis findings will be discussed. An introduction to body fluids and their clinical significance will be examined. Specific diseases/disorders and associated abnormal findings will also be covered.			
Course code	<b>MLS213</b>	Course Title:	<b>Basic Pathology</b>
This course contains an introduction to general and basic knowledge of diseases. Emphasis is placed on their causes, pathogenesis, general morphological and changes at gross and microscopic levels, and the prognosis of the disease.			
Course Code:	<b>MLS216</b>	Course Title:	<b>Fundamentals of Microbiology</b>
This microbiology course provides a comprehensive understanding of microorganisms, focusing on their structure, function, and classification. Students will learn the basics of bacteria, viruses, fungi, and parasites, and their impact on human health and disease. Special emphasis will be on microbial growth, genetics, and essential laboratory techniques for isolating, culturing, and identifying microorganisms, along with the principles of sterilization, disinfection, and antimicrobial resistance.			

Course Code:	<b>MLS219</b>	Course Title:	<b>Fundamentals of Biochemistry</b>
This course introduces the structure of macromolecules and their biochemical impact. Students shall be exposed to fundamentals of enzyme action and emphasis on the analysis of metabolic pathways, their interconnections and regulation. Students will gain an understanding of the complexity of metabolic pathways in various tissues and physiological conditions. The course also fosters problem-solving and analytical skills, which are valuable in various medical specialties.			
Course Code:	<b>MLS221</b>	Course Title:	<b>Clinical chemistry I</b>
This course is designed to introduce you to the various analytical techniques and methods used in the measurement of various parameters in the blood and other body fluids, and to gain technical skills and knowledge of interpretation of test results in health and disease states. This course should also cover clinical and diagnostic enzymology. The course mostly covers routine laboratory investigations related to disorders of plasma proteins and amino acids, enzymes, kidney function, liver function, pancreatic function, and gastrointestinal disorders.			
Course Code:	<b>MLS222</b>	Course Title:	<b>Medical Microbiology I</b>
This advanced course builds on the foundational principles introduced in the Fundamentals of Microbiology. The course will cover the principles of infectious disease development, biosafety risk classifications, general characteristics pathogenicity, virulence factors, and laboratory identification of common bacterial pathogens found in clinical specimens. Students will gain practical experience in safe handling of bacterial pathogens and performing a variety of microbiological and immunological techniques to isolate, characterize, and determine the antimicrobial susceptibility profiles of these organisms. Through case-based studies, students will also develop the skills to interpret laboratory results and correlate them with clinical presentations of infectious diseases.			
Course Code:	<b>MLS226</b>	Course Title:	<b>Hematology I</b>
This course provides students with an introduction to both theoretical and practical aspects of hematology in the medical laboratory. It focuses on the correlation of common test results with reference values and emphasizes the study of anemia and related red blood cell disorders.			
Course Code:	<b>MLS230</b>	Course Title:	<b>Medical parasitology</b>
This course provides students with comprehensive knowledge of human parasites, focusing on protozoal and metazoal parasites, including Cestodes, Nematodes, and Trematodes. Students will explore the characteristics, life cycles, transmission methods, laboratory diagnosis, and prevention strategies of these parasites. Additionally, the course offers practical experience in specimen collection and processing, concentration techniques, preparation and observation of parasitic mounts, and identification of common parasites in clinical specimens.			
Course Code:	<b>MLS312</b>	Course Title:	<b>Medical Immunology</b>
This course introduces the fundamentals of medical immunology, focusing on the components and functions of the immune system. It covers both cellular and humoral immunity in relation to health and disease. Students will also explore immunologic disorders and diagnostic techniques in clinical settings.			
Course Code:	<b>MLS313</b>	Course Title:	<b>Hematology II</b>
This course explores the clinical and laboratory aspects of both common benign and malignant white blood cell disorders, with an emphasis on case studies and detailed explanations of laboratory results. It highlights the molecular foundations and characteristics of hematological malignancies.			



Course Code:	<b>MLS316</b>	Course Title:	<b>Clinical Chemistry II</b>
This course is designed to introduce more advanced topics in clinical chemistry, including endocrinology, body fluid analysis for blood gases, electrolytes, vitamins, trace elements, tumor markers, porphyrins (heme metabolism), and infertility, prenatal testing, geriatric and pediatric testing. Students are expected to gain sufficient skills and knowledge in performing and interpreting test results related to subjects covered in this course.			
Course Code:	<b>MLS317</b>	Course Title:	<b>Medical Microbiology II</b>
This course is built on Medical Microbiology I, delving deeper into specific groups of bacterial pathogens such as anaerobes, spirochetes, and mycobacteria. Students will explore the collection and processing of clinical specimens, introduction to fungi, their infections, and diagnostic methods. Additionally, they will be introduced to automation and advanced topics in quality control within clinical microbiology laboratories and infection control practices. Students will gain practical experience in processing clinical specimens, including both aerobic and anaerobic culturing, as well as the isolation, identification, and characterization of bacterial and fungal pathogens.			
Course Code:	<b>MLS318</b>	Course Title:	<b>Histological and Cytological Techniques</b>
This course explores histological and cytological techniques with a focus on tissue fixation and processing methods. Students will learn about routine and special staining techniques used to highlight cellular and special tissue structures. The course focuses on their practical applications in diagnostic settings.			
Course Code:	<b>MLS323</b>	Course Title:	<b>Blood Coagulation</b>
This course deals with studying normal homeostasis and coagulation; the basic concepts of primary & secondary hemostasis and platelets structure & functions will be covered. The course also will focus on the pathophysiology of different hemorrhagic and thrombotic diseases and the techniques used to diagnose different coagulopathies.			
Course Code:	<b>MLS326</b>	Course Title:	<b>Human Genetics</b>
This course will cover the basic principles of inheritance, inheritance patterns of human genetic traits and disorders, cytogenetics and molecular genetics. Students will explore advances in genetic technologies and their application.			
Course Code:	<b>MLS328</b>	Course Title:	<b>Toxicology and Therapeutic Drug Monitoring</b>
This course covers the basic principles of toxicology. Students will first be introduced to basic definitions and concepts in toxicology. The course also discusses the toxicokinetic of poisons and Therapeutic drugs monitoring including their absorption, distribution, metabolism and elimination, as well as their toxicodynamic interactions. Special emphasis will be on drug toxicity, preventive measures and management of those posing a risk to society.			
Course Code:	<b>MLS330</b>	Course Title:	<b>Interdisciplinary clinical lab practicum</b>
This course provides students with hands-on experience in laboratory settings, emphasizing collaboration across various clinical laboratories. It focuses on the integration of clinical knowledge and laboratory techniques to enrich students' knowledge and teamwork skills.			
Course Code:	<b>MLS331</b>	Course Title:	<b>Forensic Sciences</b>
This course provides students with a comprehensive introduction to key forensic techniques with an emphasis on quality assurance practices. Students will develop the ability to analyze forensic evidences, address case-based scenarios, and effectively communicate findings through professional reports and presentations, integrating ethical and legal considerations.			

Course Code:	<b>MLS410</b>	Course Title:	<b>Quality assurance in lab Medicine</b>
The Clinical Laboratory Quality Management (QM) course is a comprehensive course that covers the QM terminology, practices, statistics, safety, and troubleshooting. It provides students with the essential knowledge required to set up a QM system, introduce quality control concepts and use statistical process control to verify the reliability of patient results. Finally, this course will help students quickly and easily identify and correct errors in quality control and safety procedures.			
Course Code:	<b>MLS413</b>	Course Title:	<b>Immunoematology</b>
This course involves the study of the inheritance of antigens, antibodies, and clinical significance of blood group systems. It covers the principles, procedures, and practice of a wide variety of blood banking techniques regarding donor selection, compatibility testing, component preparation and detection of antigen/antibody reactions.			
Course Code:	<b>MLS418</b>	Course Title:	<b>Lab cases seminar</b>
This course explores clinical case studies to bridge theoretical knowledge and practical application in medical laboratory sciences. Students will analyze lab results, correlate findings with diagnoses, and enhance critical thinking, problem-solving, and presentation skills through interactive discussions and seminars.			
Course Code:	<b>MLS420</b>	Course Title:	<b>Medical Virology</b>
This course provides an extensive foundation in the principles of viral structure, classification, and nomenclature, as well as genome organization and replication. The students will learn about viral-host interactions and methodologies for viral detection. Additionally, the students will explore common viral infections, their transmission, pathogenicity and the diagnostic techniques.			
Course Code:	<b>MLS421</b>	Course Title:	<b>Blood Banking Practice</b>
This course provides hands-on training in blood banking practices, focusing on the skills required to perform as well as to interpret laboratory results in various sections of blood bank. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.			
Course Code:	<b>MLS424</b>	Course Title:	<b>Immunology and Serology Practice</b>
This course provides hands-on training in clinical immunology and serology, focusing on the skills required to perform as well as to interpret laboratory results in routine and special clinical immunology and serology laboratory settings. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.			
Course Code:	<b>MLS426</b>	Course Title:	<b>Research Project I</b>
This is the first of two research project courses designed to guide students in developing a research proposal. Under supervision, students will formulate a research question, design a study, and explore key aspects of research methodology, literature review, and ethical considerations. The course culminates in the submission of a comprehensive proposal to be implemented in the MLS431 – Research Project II course.			
Course Code:	<b>MLS427</b>	Course Title:	<b>Hematology Practice</b>
This course provides hands-on training in clinical hematology, focusing on the skills required to perform as well as to interpret laboratory results in routine and special clinical hematology laboratory settings. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.			
Course Code:	<b>MLS428</b>	Course Title:	<b>Clinical Microbiology Practice</b>

This course provides hands-on training in clinical microbiology, focusing on the skills required to perform as well as to interpret laboratory results in routine and special clinical microbiology laboratory settings. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.

Course Code:	<b>MLS429</b>	Course Title:	<b>Clinical Biochemistry Practice</b>
--------------	---------------	---------------	---------------------------------------

This course provides hands-on training in clinical biochemistry, focusing on the skills required to perform as well as to interpret laboratory results in routine and special clinical biochemistry laboratory settings. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.

Course Code:	<b>MLS430</b>	Course Title:	<b>Histology and Cytology Practice</b>
--------------	---------------	---------------	--

This course provides hands-on training in histological and cytological techniques, focusing on the skills required for cytological preparation as well as tissue processing and staining for histopathological diagnosis. Emphasis will be on the use of modern diagnostic equipment, safety protocols, quality control measures, and effective communication within the multidisciplinary healthcare team.

Course Code:	<b>MLS431</b>	Course Title:	<b>Research Project II</b>
--------------	---------------	---------------	----------------------------

This course is a continuation of Research Project I, focusing on the execution of a supervised research project. Students will apply appropriate research methodologies to collect data, analyze results, and interpret findings. Under faculty guidance, they will critically assess their outcomes and compile their work into a comprehensive thesis submitted at the end of the course.

## Major Support Courses' Description

Course Code:	<b>CGS102</b>	Course Title:	<b>Chemistry</b>
--------------	---------------	---------------	------------------

You will identify the properties and reactions of the common classes of organic compounds, the relationship between their structures and their physical and chemical properties. You will relate the structure and behavior of chemical compounds to their functions in health, life, and environment. You will understand the importance of electrolyte concentrations in intravenous replacement solutions. supervision of a clinical instructor. During this course, you will be exposed to a wide range of cases and patient age groups.

Course Code:	<b>PH211</b>	Course Title:	<b>Epidemiology</b>
--------------	--------------	---------------	---------------------

Epidemiology is an integral part of public health practice / Community health and provides a basis for diagnosis and treatment in the community. It is an essential tool for health management and public health programs to carry out prevention and control of diseases/disorders in community.

Course Code:	<b>HCA301</b>	Course Title:	<b>Leadership and Management in Health Care Setting</b>
--------------	---------------	---------------	---

Leadership requires that people have the skills, education, and experience to guide the way, therefore, this course will introduce students to the basic concepts of leadership and various best practices of successful management. They will also be presented different skills that leaders must master in order to be effective in their organizations and their lives. Moreover, during this course students will explore the functional roles and processes of leadership and its influence concerning organizational development. The course will also focus on how administrative; supervisory and customer relations skills affect staff productivity and performance. In addition, students will learn about time management, planning, decision-making and motivation in the workplace.

## Major Elective Courses' Description

Course Code:	<b>MLS332</b>	Course Title:	<b>Food Microbiology</b>
This course offers a comprehensive overview of the role of microorganisms in food. Students will learn the normal microbial quality of the food microenvironment, the significance of endospores, and the principles of food spoilage and preservation. The course also covers food fermentation processes and food-borne illnesses. Additionally, the students will learn the standard techniques for isolation, enumeration and identification of microbial contaminants of food.			
Course Code:	<b>MLS333</b>	Course Title:	<b>Molecular Diagnostics</b>
This course focuses on the principles and applications of emerging molecular diagnostic techniques used in clinical settings and research. Students will learn how these techniques are applied for detection of infectious agents and genetic disorders.			
Course Code:	<b>MLS334</b>	Course Title:	<b>Assisted Reproductive Techniques</b>
This course provides an overview of modern techniques and technologies used in assisted human reproduction. The ethical and psychosocial aspects of assisted reproduction are also covered.			

## General Studies Elective Courses' Description

Course Code:	<b>SBS122</b>	Course Title:	<b>Human Relations</b>
People who enter the workforce today are discovering that interpersonal skills represent a very important category of basic or transferable skills valued by employers. These skills can help one cope with a wide range of work-life issues and conflicts that surface in their lives. Through this course you will be able to understand the different types of interactions among people in business organizations, personal and educational life. This will be done through covering various topics like communication, self-esteem and attitudes, and conflict resolutions skills.			
Course Code:	<b>SBS316</b>	Course Title:	<b>Fundamentals of Sociology and Psychology</b>
The course will familiarize students with the basic concepts and theories in Sociology and Psychology that will enable the allied health graduate to recognize the various societal forces and aspects of human behavior that control human interactions. It will facilitate the graduate to develop a holistic perception of health care needs and services			

## College Requirement Courses' Description

Course Code:	<b>LFS117</b>	Course Title:	<b>Anatomy and Physiology for MLS</b>
This course will provide you with an in-depth understanding of the structure and function of the human body with emphasis placed on the following body systems: the Endocrine, Urinary, water and electrolyte, Acid Base balance, Reproductive, Blood, lymphatic, digestive and respiratory systems. It will provide you with the basic knowledge needed for understanding of the Pathophysiology course.			
Course Code:	<b>ENG115</b>	Course Title:	<b>English for Healthcare Professionals 1</b>
Develop the language skills of reading, listening, speaking, and writing, emphasizing the language needs of healthcare professionals. Examine verbal and non-verbal communication			

skills, extracting ideas, paraphrasing, writing using the APA style and guidelines, and writing assessment reports. Comprehend the medical terminologies, prefixes, suffixes, and word roots.			
Course Code:	<b>ENG 125</b>	Course Title:	<b>English for Healthcare Professionals II</b>
Apply the language and communication skills of reading, listening, speaking, and writing at a higher level. Adopt critical reading skills, inferential comprehension, analytical report writing, and a research essay based on medical terminologies and the APA style and guidelines.			
Course Code:	<b>PH222</b>	Course Title:	<b>Biostatistics for Health Sciences</b>
This course examines the core concepts, principles, and techniques of biostatistics relevant to health sciences. Students will apply descriptive and inferential statistical methods necessary for designing, analysing, and interpreting research data using statistical software, enabling them to make informed decisions based on statistical evidence.			
Course Code:	<b>SBS320</b>	Course Title:	<b>Research Methods</b>
You will be introduced to the research process dealing with necessary methodology, types of research, sampling, and data collection. The major aim of this course is to enable the student to develop the basic knowledge and skills. Further, this knowledge and skills will be applied by developing a research proposal.			

## University Requirement Courses' Description

Course Code:	<b>ISLM 101</b>	Course Title:	<b>الثقافة الإسلامية</b>
دراسة لمفهوم الثقافة الإسلامية، وبيان مصادرها من القرآن والسنة والاجتهاد، وبيان أهم ركائزها من العقيدة والعبادة والأخلاق، وأهم النظم الإسلامية، كالنظام الاجتماعي والاقتصادي والسياسي، مع التركيز على موقف الثقافة الإسلامية من أهم قضايا العصر مثل: قضية الإرهاب والتطرف، وقضية الحوار.			
Course Code:	<b>ARAB110</b>	Course Title:	<b>(1) مهارات لغوية</b>
دراسة أساسيات اللغة العربية، صياغة، وتركيباً، ومعجماً، ودلالة، ومعالجة أساليبها قراءةً وتدوفاً، ونقداً، وبيان خصائصها الجمالية وقيمها الـلـغـويـة والتعبيرية، من خلال نصوص تتناول مختلف الأجناس الأدبية شعراً ونثراً.			
Course Code:	<b>HRLC107</b>	Course Title:	<b>مبادئ حقوق الإنسان</b>
دراسة ماهية حقوق الإنسان ومصادرها الدولية والوطنية، وأنواع الحقوق المحمية: المدنية والسياسية والاقتصادية والاجتماعية والثقافية وتطبيقاتها في مملكة البحرين، بالإضافة إلى دراسة آليات مراقبة حقوق الإنسان الدولية والوطنية ويتضمن المقرر إنجازات مملكة البحرين في مجال حقوق الإنسان من خلال بيان وتعريف الطلبة بأجهزتها الحقوقية.			
Course Code:	<b>HIST122</b>	Course Title:	<b>Modern History of Bahrain and Citizenship</b>
Spatial identity of Bahrain: Brief history of Bahrain until the 18th century; the historical roots of the formation of the national identity of Bahrain since the 18th century; the modern state and evolution of constitutional life in Bahrain; the Arabic and Islamic dimensions of the identity of Bahrain; the core values of Bahrain's society and citizenship rights (legal, political, civil and economic); duties; responsibilities and community participation; economic change and development in Bahrain; Bahrain's Gulf, Arab and international relations.			