

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 501211      **Description:** Anatomy & Histology

**Full Course Description:** This course aims to enable students to identify the various organs of the systems forming the human body and study the anatomical structures and features of each part of human body. The course concentrated in identifying the histology and anatomy of skeletal, muscular, cardiovascular, lymphatic, nervous, digestive, respiratory, reproductive, and endocrine systems.

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**Course ID:** 501221      **Description:** Biochemistry

**Full Course Description:** This course studies the major concepts in biochemistry including: composition and function of water molecules, amino acids and proteins, enzymes, carbohydrates and lipids. Also the course focuses on explaining chemical structures and functions of these compounds and their association with various types of disorders and disease.

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**Course ID:** 501233      **Description:** Histopathological & Cytological Techniques

**Full Course Description:**

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**Course ID:** 501241      **Description:** Basic Medical Microbiology

**Full Course Description:** The fundamentals of microbiology: Lectures are focused on the structure, physiology and genetics of prokaryotic and eukaryotic microorganisms and their interaction with human host. Laboratory sessions are focused on safety precautions, pure culture techniques, methods of staining and the microscopic appearance of microorganisms. The Laboratory is 3 hours and separated as single course and is not given to nursing students. □  
The students are expected to earn the basic conceptual background in medical microbiology to enable them to handle future courses on advanced medical microbiology, such as diagnostic bacteriology, diagnostic virology, diagnostic mycology and diagnostic parasitology for medical laboratory sciences students; and food microbiology for clinical nutrition students. This course enables nursing students to consider microbial infections in various medial sittings such as hospitals and health care centers and maintain useful informative background for infection control and medical procedures. □

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**Course ID:** 501242      **Description:** Immunology

**Full Course Description:** This course studies principles of the immune system and its molecular and cellular interactions. The major topics include: the development of the immune system, cellular and humoral immune responses, innate and adaptive branches of the immune system, immune disorders such as autoimmunity and immunodeficiency and immunization. □  
. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 501246      **Description:** Epidemiology

**Full Course Description:**

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**Course ID:** 501252      **Description:** Human Genetics

**Full Course Description:**

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**Course ID:** 501254      **Description:** Human Embryology

**Full Course Description:**

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**Course ID:** 501313      **Description:** Endocrinology

**Full Course Description:** This deals with the basic substance and elements in the human body, enzymes, vitamins and various hormones. Side work also includes various work to uncover the body's working systems.

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 501316      **Description:** Reproductive Physiology

**Full Course Description:**

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**Course ID:** 501321      **Description:** Clinical chemistry (1)

**Full Course Description:**

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**Course ID:** 501322      **Description:** Clinical chemistry (2)

**Full Course Description:**

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**Course ID:** 501323      **Description:** Instrumental & Chemical Analysis

**Full Course Description:** The course aims to provide students with comprehensive understanding of important topics in instrumental techniques and methods in biomedical labs. This course helps the students to build an advanced integrated knowledge of key subjects in analytical chemistry, including chromatography, photometry, atomic spectroscopy, and mass spectrometry .

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**Course ID:** 501324      **Description:** Urinalysis & Body Fluids

**Full Course Description:**

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**Course ID:** 501331      **Description:** Clinical Hematology (1)

**Full Course Description:** The course is designed to introduce students to the basic concepts and techniques in the hematology laboratory. This entails the systematic coverage of formation, functions, disorders, and blood tests of red blood cells, hemoglobin, platelets, white blood cells, and coagulation systems. The practical work in the course is designed to expand and reinforce the ideas introduced in the lectures. Enough background and instructions on laboratory methods and instrumentation are provided to enable satisfactory laboratory performance. Automation is also stressed with a special emphasis on the various automated processes used in hematology, ranging from the simple analysers to the more complex electronic analysers used in the department.

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**Course ID:** 501332      **Description:** Clinical Hematology (2)

**Full Course Description:** This subject covers disease processes related to hereditary, acquired, benign and malignant disorders of hematological systems; correlation of physiological processes, pathological states and diagnostic tools in hematology; light microscopic morphological examination of peripheral blood and bone marrow in diseases and correlation of these findings with indices and cell counts obtained by automated laboratory equipment; procedures for detection and precise diagnosis of anaemias, hemoglobin disorders, hemostatic disorders, hematological malignancies; the World Health Organization classification of hematological malignancies; introduction to cytogenetics; prenatal diagnosis of genetic disease, genetic counselling and cancer cytogenetics.

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**Course ID:** 501341      **Description:** Clinical Microbiology

**Full Course Description:** Lectures are focused on the medically important bacteria,□ exploring pathology, pathogenesis, laboratory diagnosis and management. Laboratory sessions□ are focused on bacteriologic techniques for isolation of bacteria from clinical specimens,□ differential biochemical identification and antibiotic sensitivity testing.□

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**Course ID:** 501342      **Description:** Medical Microbiology For Nursing

**Full Course Description:**

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**Course ID:** 501343      **Description:** Medical Parasitology

**Full Course Description:** The course is designed to provide the student with basic knowledge and information on human parasites of medical importance, especially protozoa and helminths. The course will cover parasites basic life cycles, epidemiology, modes of transmission, clinical features, laboratory diagnosis, as well as physiological and immunological interactions between parasites and their hosts.

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 501344      **Description:** Medical Virology

**Full Course Description:**

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**Course ID:** 501345      **Description:** Medical Microbiology For Nursing

**Full Course Description:**

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**Course ID:** 501348      **Description:** Diagnostic Immunology & Serology

**Full Course Description:** This course introduces the concepts of diagnostic immunology and serology for clinical laboratory practice. It covers essential theoretical principles along with basic serology techniques most commonly used in the laboratory. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 501352      **Description:** Genetic Counseling

**Full Course Description:**

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**Course ID:** 501362      **Description:** Quality Control

**Full Course Description:**

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**Course ID:** 501373      **Description:** Computers in Medical Laboratory Sciences

**Full Course Description:**

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**Course ID:** 501425      **Description:** Pharmacology

**Full Course Description:**

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**Course ID:** 501429      **Description:** Internship in Clinical Chemistry and special test

**Full Course Description:**

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**Course ID:** 501434      **Description:** Internship In Histopathology & cytopathology

**Full Course Description:**

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**Course ID:** 501435      **Description:** Tissue Culture

**Full Course Description:**

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**Course ID:** 501439      **Description:** Internship in Hematology & Blood Banking

**Full Course Description:**

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**Course ID:** 501441      **Description:** Diagnostic Immunology

**Full Course Description:**

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**Course ID:** 501444      **Description:** Community Health

**Full Course Description:**

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**Course ID:** 501448      **Description:** Medical Virology

**Full Course Description:**

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**Course ID:** 501449      **Description:** Internship in Medical Microbiology

**Full Course Description:**

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**Course ID:** 501451      **Description:** Molecular Biology & celluler Genetics

**Full Course Description:**

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 501461      **Description:** Medical Ethics

**Full Course Description:**

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**Course ID:** 501462      **Description:** Laboratory Management

**Full Course Description:**

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**Course ID:** 501491      **Description:** Seminar

**Full Course Description:** This course is designed to train students to search for, read and understand published scientific papers and defend and criticize the published work. It consists of a series of introductory lectures, class exercises followed by presentations held by students. Students will be trained to present in class and critically analyze original manuscripts, gain experience in formulating questions, and participating in scientific discussion of current research.

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**Course ID:** 501492      **Description:** Advanced Research methodology

**Full Course Description:**

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**Course ID:** 501493      **Description:** Recent research studies

**Full Course Description:**

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**Course ID:** 501495      **Description:** Special Topics

**Full Course Description:** This course covers different topics in medical science research such as information sources in medical science; medical data bases, abstracting journals, use of original articles and reviews; verbal presentation of information; a substantial review of the scientific literature on a up to date selected techniques of medical science

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**Course ID:** 2501212      **Description:** Human Physiology

**Full Course Description:** This course will concentrate on the basic functions of the human body, including cells, muscles, Nervous, Blood, Heart, Blood vessels, and urinary. More emphasis will be focused on mechanisms involved in the physiological processes.

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**Course ID:** 2501213      **Description:** Anatomy

**Full Course Description:**

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**Course ID:** 2501214      **Description:** Human Physiology

**Full Course Description:**

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**Course ID:** 2501221      **Description:** Biochemistry

**Full Course Description:** This course studies the major concepts in biochemistry including: composition and function of water molecules, amino acids and proteins, enzymes, carbohydrates and lipids. Also the course focuses on explaining chemical structures and functions of these compounds and their association with various types of disorders and disease.

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**Course ID:** 2501311      **Description:** Pathology

**Full Course Description:** This course deals with the basic concepts of pathology and the changes that occur in organs as a result of diseases such as diseases of the circulatory system, bones, joints, infections, and others.

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**Course ID:** 2501325      **Description:** Toxicology

**Full Course Description:**

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**Course ID:** 2501341      **Description:** Clinical Microbiology

**Full Course Description:** Lectures are focused on the medically important bacteria,□ exploring pathology, pathogenesis, laboratory diagnosis and management. Laboratory sessions□ are focused on bacteriologic techniques for isolation of bacteria from clinical specimens,□ differential biochemical identification and antibiotic sensitivity testing.□

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 2501348      **Description:** EEEE

**Full Course Description:** This course introduces the concepts of diagnostic immunology and serology for clinical laboratory practice. It covers essential theoretical principles along with basic serology techniques most commonly used in the laboratory. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 2501352      **Description:** Genetic Counseling

**Full Course Description:**

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**Course ID:** 2501361      **Description:** Principles of Medicine

**Full Course Description:**

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**Course ID:** 2501425      **Description:** Pharmacology

**Full Course Description:**

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**Course ID:** 2501431      **Description:** Blood Bank

**Full Course Description:** Blood Banking deals with the study of immunologic principles applied in blood group specific antigens and antibodies and its application in transfusion medicine. It also deals with the mechanisms of blood typing and crossmatching, antihuman globulin testing, detection and identification of antibodies, screening of donors for blood donation, preparation and storage of blood components.

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**Course ID:** 2501442      **Description:** Medical Mycology

**Full Course Description:**

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**Course ID:** 2501443      **Description:** Medical Mycology

**Full Course Description:** www

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**Course ID:** 2501447      **Description:** Internship In Clinical Immunology

**Full Course Description:**

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**Course ID:** 2501449      **Description:** Internship in Medical Microbiology

**Full Course Description:**

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**Course ID:** 3501311      **Description:** Pathology

**Full Course Description:** This course deals with the basic concepts of pathology and the changes that occur in organs as a result of diseases such as diseases of the circulatory system, bones, joints, infections, and others.

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**Course ID:** 110501210      **Description:** Microtechnique Practical

**Full Course Description:** cczx

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**Course ID:** 110501216      **Description:** Human Anatomy Practical

**Full Course Description:** In the practical aspect of human anatomy, different models have been used to facilitate identification the anatomical features of organs of the human body systems.

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**Course ID:** 110501217      **Description:** Histology

**Full Course Description:** sa

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**Course ID:** 110501218      **Description:** Histology Practical

**Full Course Description:** gf

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 110501219      **Description:** Microtechnique

**Full Course Description:** dsfsd

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**Course ID:** 110501223      **Description:** Human Physiology / Practical

**Full Course Description:** jk

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**Course ID:** 110501231      **Description:** Biochemistry

**Full Course Description:** Biochemistry involves the study of the molecular composition of living cells, the organization of biological molecules within the cell, and the structure and function of these biological molecules (proteins, polysaccharides, lipids and nucleic acids). This course will concentrate on the structures of these molecules, their functions, and the strong relationship between structure and function. Other topics to be examined in the course include the kinetics and catalytic mechanisms of enzymes. Methods and approaches used in biochemical research will be presented as will the biochemical basis of some disease states.

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**Course ID:** 110501232      **Description:** Practical Biochemistry

**Full Course Description:** das

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**Course ID:** 110501244      **Description:** Medical Microbiology Practical

**Full Course Description:** hjj

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**Course ID:** 110501252      **Description:** Hematology (1)

**Full Course Description:** The course is designed to introduce students to the basic concepts and techniques in the hematology laboratory. This entails the systematic coverage of formation, functions, disorders, and blood tests of red blood cells, hemoglobin, platelets, white blood cells, and coagulation systems. The practical work in the course is designed to expand and reinforce the ideas introduced in the lectures. Enough background and instructions on laboratory methods and instrumentation are provided to enable satisfactory laboratory performance. Automation is also stressed with a special emphasis on the various automated processes used in hematology, ranging from the simple analysers to the more complex electronic analysers used in the department.

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**Course ID:** 110501256      **Description:** Hematology / Practical

**Full Course Description:** hj

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**Course ID:** 110501311      **Description:** Pathology

**Full Course Description:** This course deals with the basic concepts of pathology and the changes that occur in organs as a result of diseases such as diseases of the circulatory system, bones, joints, infections, and others.

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**Course ID:** 110501322      **Description:** Clinical Chemistry

**Full Course Description:** kl

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**Course ID:** 110501323      **Description:** Practical Clinical Chemistry

**Full Course Description:** This course trains students to carry out examinations related to clinical chemistry and trains them to deal with medical samples and various laboratory equipment.

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**Course ID:** 110501325      **Description:** Toxicology

**Full Course Description:** dsfs

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**Course ID:** 110501333      **Description:** Endocrinology

**Full Course Description:** This deals with the basic substance and elements in the human body, enzymes, vitamins and various hormones. Side work also includes various work to uncover the body's working systems.

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 110501334      **Description:** Practical Endocrinology

**Full Course Description:** This deals with the basic substance and elements in the human body, enzymes, vitamins and various hormones. Side work also includes various work to uncover the body's working systems.

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**Course ID:** 110501335      **Description:** Urine and Body Fluid Analysis

**Full Course Description:** j

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**Course ID:** 110501336      **Description:** Urine and Body Fluid Analysis / Practical

**Full Course Description:** zx

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**Course ID:** 110501337      **Description:** Molecular Biology and Cell Genetics

**Full Course Description:** jh

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**Course ID:** 110501338      **Description:** Molecular Biology and Cell Genetics/ Practical

**Full Course Description:** as

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**Course ID:** 110501345      **Description:** Diagnostic Microbiology

**Full Course Description:** Lectures are focused on the medically important bacteria,□ exploring pathology, pathogenesis, laboratory diagnosis and management. Laboratory sessions□ are focused on bacteriologic techniques for isolation of bacteria from clinical specimens,□ differential biochemical identification and antibiotic sensitivity testing.□

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**Course ID:** 110501346      **Description:** Diagnostic Microbiology Practical

**Full Course Description:** zx

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**Course ID:** 110501347      **Description:** Medical Parasitology

**Full Course Description:** The course is designed to provide the student with basic knowledge and information on human parasites of medical importance, especially protozoa and helminths. The course will cover parasites basic life cycles, epidemiology, modes of transmission, clinical features, laboratory diagnosis, as well as physiological and immunological interactions between parasites and their hosts.

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**Course ID:** 110501349      **Description:** Medical Parasitology Practical

**Full Course Description:** s

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**Course ID:** 110501353      **Description:** Hematology (2)

**Full Course Description:** This subject covers disease processes related to hereditary, acquired, benign and malignant disorders of hematological systems; correlation of physiological processes, pathological states and diagnostic tools in hematology; light microscopic morphological examination of peripheral blood and bone marrow in diseases and correlation of these findings with indices and cell counts obtained by automated laboratory equipment; procedures for detection and precise diagnosis of anaemias, hemoglobin disorders, hemostatic disorders, hematological malignancies; the World Health Organization classification of hematological malignancies; introduction to cytogenetics; prenatal diagnosis of genetic disease, genetic counselling and cancer cytogenetics.

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**Course ID:** 110501354      **Description:** Practical Hematology (2)

**Full Course Description:** asd

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 110501355      **Description:** Immunology and Serology

**Full Course Description:** This course introduces the concepts of diagnostic immunology and serology for clinical laboratory practice. It covers essential theoretical principles along with basic serology techniques most commonly used in the laboratory. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 110501356      **Description:** Practical Immunology and Serology

**Full Course Description:** a

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**Course ID:** 110501362      **Description:** Quality Control

**Full Course Description:** sdf

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**Course ID:** 110501364      **Description:** Epidemiology

**Full Course Description:** dsfs

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**Course ID:** 110501365      **Description:** Human Genetics

**Full Course Description:** sdf

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**Course ID:** 110501366      **Description:** Human Genetics Practical

**Full Course Description:** dsfsd

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**Course ID:** 110501367      **Description:** Developmental Biology

**Full Course Description:** sdf

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**Course ID:** 110501368      **Description:** Developmental Biology Practical

**Full Course Description:** dsfsd

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**Course ID:** 110501415      **Description:** Internship in Tissue culture

**Full Course Description:** dsf

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**Course ID:** 110501424      **Description:** Oncology

**Full Course Description:** This course will cover the molecular and cellular events lead to tumor formation, progression, and metastasis. Students will learn about the clinical aspects of different types of cancer, diagnostic procedures, tests and the specific therapies. Examples of molecular genetic and other biological events related to cancer etiology, symptoms and targets for cancer therapy will be given in addition to other clinical aspects. Emphasis is on the correlation between the molecular basis of cancer and its clinical implications.

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**Course ID:** 110501435      **Description:** Cell Culture

**Full Course Description:** sdas

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**Course ID:** 110501436      **Description:** Cell Culture Practical

**Full Course Description:** jk

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**Course ID:** 110501437      **Description:** Internship in Clinical Chemistry and Molecular Biology

**Full Course Description:** sd

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**Course ID:** 110501445      **Description:** Internship in Clinical Microbiology

**Full Course Description:** dsa

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**Course ID:** 110501446      **Description:** Mycology and Virology

**Full Course Description:** as



## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 110501447      **Description:** Internship (2)

**Full Course Description:** kk

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**Course ID:** 110501453      **Description:** Blood Bank

**Full Course Description:** Blood Banking deals with the study of immunologic principles applied in blood group specific antigens and antibodies and its application in transfusion medicine. It also deals with the mechanisms of blood typing and crossmatching, antihuman globulin testing, detection and identification of antibodies, screening of donors for blood donation, preparation and storage of blood components.

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**Course ID:** 110501454      **Description:** Blood Bank Practical

**Full Course Description:** dsf

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**Course ID:** 110501455      **Description:** Internship in Blood & Blood Bank

**Full Course Description:** fds

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**Course ID:** 110501456      **Description:** Internship in Clinical Immunology

**Full Course Description:** czx

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**Course ID:** 110501457      **Description:** Internship (1)

**Full Course Description:** tt

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**Course ID:** 110501491      **Description:** Seminar in Laboratory Science

**Full Course Description:** This course is designed to train students to search for, read and understand published scientific papers and defend and criticize the published work. It consists of a series of introductory lectures, class exercises followed by presentations held by students. Students will be trained to present in class and critically analyze original manuscripts, gain experience in formulating questions, and participating in scientific discussion of current research.

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**Course ID:** 110501495      **Description:** Special Topics in Laboratory Science

**Full Course Description:** This course covers different topics in medical science research such as information sources in medical science; medical data bases, abstracting journals, use of original articles and reviews; verbal presentation of information; a substantial review of the scientific literature on a up to date selected techniques of medical science

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**Course ID:** 140501225      **Description:** Pharmacology

**Full Course Description:** سييسي

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**Course ID:** 140501324      **Description:** Body Fluids Analysis

**Full Course Description:** تهتمتمك

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**Course ID:** 140501332      **Description:** Clinical Chemistry (1)

**Full Course Description:** This course trains students to carry out examinations related to clinical chemistry and trains them to deal with medical samples and various laboratory equipment.

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**Course ID:** 140501333      **Description:** Clinical Chemistry (2)

**Full Course Description:** نمكمنت

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**Course ID:** 140501344      **Description:** Medical Parasitology

**Full Course Description:** The course is designed to provide the student with basic knowledge and information on human parasites of medical importance, especially protozoa and helminths. The course will cover parasites basic life cycles, epidemiology, modes of transmission, clinical features, laboratory diagnosis, as well as physiological and immunological interactions between parasites and their hosts.

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 140501352      **Description:** Hematology (2)

**Full Course Description:** This subject covers disease processes related to hereditary, acquired, benign and malignant disorders of hematological systems; correlation of physiological processes, pathological states and diagnostic tools in hematology; light microscopic morphological examination of peripheral blood and bone marrow in diseases and correlation of these findings with indices and cell counts obtained by automated laboratory equipment; procedures for detection and precise diagnosis of anaemias, hemoglobin disorders, hemostatic disorders, hematological malignancies; the World Health Organization classification of hematological malignancies; introduction to cytogenetics; prenatal diagnosis of genetic disease, genetic counselling and cancer cytogenetics.

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**Course ID:** 140501354      **Description:** Diagnostic Immunology and Serology

**Full Course Description:** This course introduces the concepts of diagnostic immunology and serology for clinical laboratory practice. It covers essential theoretical principles along with basic serology techniques most commonly used in the laboratory. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 140501423      **Description:** Endocrine Glands

**Full Course Description:** This deals with the basic substance and elements in the human body, enzymes, vitamins and various hormones. Side work also includes various work to uncover the body's working systems.

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**Course ID:** 140501446      **Description:** Medical Virology

**Full Course Description:** منكمك

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**Course ID:** 140501453      **Description:** Phlebotomy and Blood Banking

**Full Course Description:** Blood Banking deals with the study of immunologic principles applied in blood group specific antigens and antibodies and its application in transfusion medicine. It also deals with the mechanisms of blood typing and crossmatching, antihuman globulin testing, detection and identification of antibodies, screening of donors for blood donation, preparation and storage of blood components.

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**Course ID:** 140501462      **Description:** Research Methods in Medical Laboratory Sciences

**Full Course Description:** سشيش

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**Course ID:** 140501471      **Description:** Field Training (1)

**Full Course Description:** بسسيببس

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**Course ID:** 140501472      **Description:** Field Training (2)

**Full Course Description:** بيليل

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**Course ID:** 2005011161      **Description:** Medical Terminology

**Full Course Description:**

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**Course ID:** 2005011213      **Description:** Micro-techniques for Histopathology□

**Full Course Description:**

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**Course ID:** 2005011214      **Description:** Micro-techniques for Histopathology / Practical

**Full Course Description:**

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**Course ID:** 2005011215      **Description:** Embryology

**Full Course Description:**

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 2005011221      **Description:** Medical Human Physiology

**Full Course Description:** This course will concentrate on the basic functions of human body, including cell, muscles, Nervous, Blood, Heart, Blood vessels, urinary. More emphasis will be focused on mechanisms involved in the physiological processes.

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**Course ID:** 2005011231      **Description:** Medical Biochemistry

**Full Course Description:** This course studies the major concepts in biochemistry including: composition and function of water molecules, amino acids and proteins, enzymes, carbohydrates and lipids. Also the course focuses on explaining chemical structures and functions of these compounds and their association with various types of disorders and disease.

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**Course ID:** 2005011233      **Description:** Metabolism and Protein Chemistry

**Full Course Description:**

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**Course ID:** 2005011234      **Description:** Human Genetics

**Full Course Description:**

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**Course ID:** 2005011241      **Description:** Basic Medical Microbiology

**Full Course Description:** The fundamentals of microbiology: Lectures are focused on the structure, physiology and genetics of prokaryotic and eukaryotic microorganisms and their interaction with human host. Laboratory sessions are focused on safety precautions, pure culture techniques, methods of staining and the microscopic appearance of microorganisms. The Laboratory is 3 hours and separated as single course and is not given to nursing students. □  
The students are expected to earn the basic conceptual background in medical microbiology to enable them to handle future courses on advanced medical microbiology, such as diagnostic bacteriology, diagnostic virology, diagnostic mycology and diagnostic parasitology for medical laboratory sciences students; and food microbiology for clinical nutrition students. This course enables nursing students to consider microbial infections in various medial sittings such as hospitals and health care centers and maintain useful informative background for infection control and medical procedures. □

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**Course ID:** 2005011251      **Description:** Hematology (1)

**Full Course Description:** The course is designed to introduce students to the basic concepts and techniques in the hematology laboratory. This entails the systematic coverage of formation, functions, disorders, and blood tests of red blood cells, hemoglobin, platelets, white blood cells, and coagulation systems. The practical work in the course is designed to expand and reinforce the ideas introduced in the lectures. Enough background and instructions on laboratory methods and instrumentation are provided to enable satisfactory laboratory performance. Automation is also stressed with a special emphasis on the various automated processes used in hematology, ranging from the simple analyzers to the more complex electronic analyzers used in the department.

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**Course ID:** 2005011252      **Description:** Introduction to Immunology

**Full Course Description:** This course studies principles of the immune system and its molecular and cellular interactions. The major topics include: the development of the immune system, cellular and humoral immune responses, innate and adaptive branches of the immune system, immune disorders such as autoimmunity and immunodeficiency and immunization.

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**Course ID:** 2005011261      **Description:** Special Topics in Medical Laboratory Sciences

**Full Course Description:** This course covers different topics in medical science research such as information sources in medical science; medical data bases, abstracting journals, use of original articles and reviews; verbal presentation of information; a substantial review of the scientific literature on a up to date selected techniques of medical science

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 2005011312      **Description:** Oncology

**Full Course Description:** This course will cover the molecular and cellular events lead to tumor formation, progression, and metastasis. Students will learn about the clinical aspects of different types of cancer, diagnostic procedures, tests and the specific therapies. Examples of molecular genetic and other biological events related to cancer etiology, symptoms and targets for cancer therapy will be given in addition to other clinical aspects. Emphasis is on the correlation between the molecular basis of cancer and its clinical implications.

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**Course ID:** 2005011313      **Description:** Cells Culture

**Full Course Description:**

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**Course ID:** 2005011321      **Description:** Pathophysiology

**Full Course Description:**

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**Course ID:** 2005011334      **Description:** Molecular Biology and Cell Genetics

**Full Course Description:**

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**Course ID:** 2005011341      **Description:** Diagnostic Microbiology

**Full Course Description:** Lectures are focused on the medically important bacteria,□ exploring pathology, pathogenesis, laboratory diagnosis and management. Laboratory sessions□ are focused on bacteriologic techniques for isolation of bacteria from clinical specimens,□ differential biochemical identification and antibiotic sensitivity testing.□

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**Course ID:** 2005011343      **Description:** Molecular Diagnosis of Infectious Diseases

**Full Course Description:**

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**Course ID:** 2005011344      **Description:** Epidemiology

**Full Course Description:**

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**Course ID:** 2005011351      **Description:** Diagnostic Immunology and Serology

**Full Course Description:** This course introduces the concepts of diagnostic immunology and serology for clinical laboratory practice. It covers essential theoretical principles along with basic serology techniques most commonly used in the laboratory. It provides students with knowledge required to perform different serological techniques used in disease diagnosis. It consists of the theory, application, and performance of common serological testing used in a clinical laboratory such as agglutination reactions, precipitation reactions, direct and indirect hemagglutination and immunodiffusion. The course is accompanied by practical laboratory sessions.

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**Course ID:** 2005011353      **Description:** Blood Bank

**Full Course Description:** Blood Banking deals with the study of immunologic principles applied in blood group specific antigens and antibodies and its application in transfusion medicine. It also deals with the mechanisms of blood typing and crossmatching, antihuman globulin testing, detection and identification of antibodies, screening of donors for blood donation, preparation and storage of blood components.

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**Course ID:** 2005011354      **Description:** Haematopoietic Stem Cell Science

**Full Course Description:**

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**Course ID:** 2005011361      **Description:** Instrumental Analysis in Medical Laboratories

**Full Course Description:** يهدف المقرر إلى تزويد الطلاب بفهم شامل للموضوعات الهامة في التقنيات والأساليب الآلية في مختبرات الطب الحيوي. يساعد هذا المقرر الطلاب على بناء معرفة متكاملة متقدمة بالمواضيع الرئيسية في الكيمياء التحليلية، بما في ذلك القياس اللوني والقياس الضوئي والمطياف الذري ومطياف الكتلة.

## Courses Description

**College:** Applied Medical Sciences

**Department:** Medical Laboratory Sciences

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**Course ID:** 2005011362      **Description:** Research methods and Biostatistics

**Full Course Description:**

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**Course ID:** 2005011363      **Description:** Introduction to Biotechnology

**Full Course Description:**

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**Course ID:** 2005011441      **Description:** Medical Mycology

**Full Course Description:**

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**Course ID:** 2005011460      **Description:** "Quality control and Medical Laboratory Management

**Full Course Description:**

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**Course ID:** 2005011461      **Description:** Ethics and safety in Medical Laboratories

**Full Course Description:**

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**Course ID:** 2005011462      **Description:** Seminar in Medical Laboratory Sciences

**Full Course Description:** This course is designed to train students to search for, read and understand published scientific papers and defend and criticize the published work. It consists of a series of introductory lectures, class exercises followed by presentations held by students. Students will be trained to present in class and critically analyze original manuscripts, gain experience in formulating questions, and participating in scientific discussion of current research.

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**Course ID:** 2005011471      **Description:** Field Training (1)

**Full Course Description:**

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**Course ID:** 2005011472      **Description:** Field Training (2)

**Full Course Description:**

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**Course ID:** 2005011473      **Description:** Field Training (3)

**Full Course Description:**

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**Course ID:** 2005011474      **Description:** Field Training (4)

**Full Course Description:**