# Courses Description – 3<sup>rd</sup> Year (New Study Plan)



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# 1<sup>st</sup> Course: Anatomy (3)

**Course Title And Code:** 

### Anatomy (3).

**Credit Hours:** 

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

### <u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

By the end of this course the student should be able to:

- 1- Describe the anatomy of the brain and spinal cord and identify their major external and internal structures, coverings, fluids and the peripheral and cervical nerves and its pathways.
- 2- Acquire an overview of the field of neuroanatomy that will serve as a solid foundation for future study of neurological disorders. Course Description:
- Central Nervous System:
  - 1- The Brain.
  - 2- Brain.
  - 3- Cerebellum.
  - 4- Brain Stem (Medium Brain Pons And Medulla Oblongata).
  - 5- Blood Supply.
  - 6- Lobes Of The Brain.
  - 7- Cortex.
  - 8- Deep Structures.
  - 9- Ventricles.

- 10- Cerebrospinal Fluid.
- 11- Meninges.
- 12- Spinal Cord.
- Peripheral Nervous System.
  - **1- Cranial Nerves.**
  - 2- Spinal Nerves.
- Autonomic Nervous System:
- 1- Central And Peripheral Sympathetic System.
  - 2- Central And Peripheral Parasympathetic System.
- **Educational Outputs The Student Should Acquire:**

Acquire the anatomical knowledge and concepts of the nervous system in all its parts and relations among them.

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### **Teaching & Training Methods:**

**1- Theoretical course.** 

- **2- Practical training.**
- **3- Educational multi-media tools.**

# **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

# Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.

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# 2<sup>nd</sup> Course: Medical And Clinical Biochemistry (2)

**Course Title And Code:** 

Medical And Clinical Biochemistry (2).

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 1 practical hour/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the chemical mechanisms and the metabolic pathways of the biological molecules within the body and to evaluate different body systems and organs.
- 2- Understand the pathological chemical mechanisms that affect the main pathways in different organs.
- 3- Follow a systematic method of thinking for accurate diagnosis of some clinical cases.

•	Hormones: Diversity Of	Metabolism Of Carbohydrates
	Structure, Classification,	And Their Disorders.
	Functions, Delivery,	<ul> <li>Pancreatitis Disease Tests.</li> </ul>
	Mechanism Of Action And	Neurotransmitters: Structure
	Signal Transduction (Peptide,	And Synthesis.
	Steroids).	Purine Metabolism Disorder:
•	Synthesis Of Thyroid	Gout.
	Hormones And Delivery.	<ul> <li>Investigations Of Endocrine</li> </ul>
•	Synthesis Of Insulin And	Glands Disorders.
	Parathyroid Hormone.	Cerebrospinal Fluid Tests.
•	Synthesis Of Steroid	Biology Of Xenobiotic
	Hormones.	Metabolism.

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#### **Educational Outputs The Student Should Acquire:**

- 1- Knowledge and understanding of course topics.
- **2- Practical applications.**
- **3- Developing logical judgment communication skills.**
- 4- Ability to analyze and managing data.

**Teaching & Training Methods:** 

- **1- Theoretical course.**
- **2- Practical training.**
- **3- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

### Automated examination at the end of the semester.

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# 3<sup>rd</sup> Course: Normal And Pathological Medical Physiology (2)

**Course Title And Code:** 

Normal And Pathological Medical Physiology (2).

**Credit Hours:** 

4 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the physiological mechanisms of body organs and systems.
- 2- Understand mechanisms of disorders of different physiological functions.
- 3- Explain how main pathologies of physiological systems occur.
- 4- Follow logical ways of thinking by using theoretical and practical knowledge in order to understand the different physiopathological disorders, as the first step before moving to the clinical study.

- Neuro-Endocrine Axis.
- Pituitary Gland, Development And Growth.
- Disorders Of Pituitary Gland And Hypothalamus.
- Thyroid Gland And Its Mechanics And Disorders.
- Parathyroid Glands And Its Disorders.
- Calcium And Vitamin D Metabolism.

- Adrenal Glands And Its Disorders.
- Sexual Function And Its Disorders.
- Pancreas And Blood Sugar Regulation.
- Pathophysiology Of Diabetes Mellitus.
- Physiology And pathophysiology Of Muscles, Nervous System And Senses.

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#### **Educational Outputs The Student Should Acquire:**

- **1- Knowing and understanding of course topics.**
- **2- Practical applications.**
- **3- Learning to take the clinical history and getting information.**
- 4- Developing clinical judgment- communication skills.
- 5- Ability to analyze and manage data.
- **6- Professional ethics.**
- <u> Teaching & Training Methods:</u>
- **1- Theoretical course.**
- **2- Practical training.**
- **3- Educational multi-media tools.**
- Assessment Strategy And Credits:
- 100 credits:
- Practical examination 30 credits:
- Through practical evaluation and laboratory experiments.
- **Evaluation of theoretical Knowledge 70 credits:**
- Automated examination at the end of the semester.

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# 4<sup>th</sup> Course: Clinical Skills

Course Title And Code:	
Clinical Skills.	
Credit Hours:	
4 theoretical hours/week (18 wee	ks) - 2 practical hours/week.
Level/Year At Which This Course	Is Offered:
3 <sup>rd</sup> year - 1 <sup>st</sup> semester.	
What Is The Main Purposes For T	his Course:
By the end of this course the stu	lent should be able to:
1- Understand methods to commu	inicate with patients.
2- Acquire the skills that enables	him/her to examine the patient
clinically a <mark>nd</mark> help in diagnosi <mark>n</mark>	g <mark>variou</mark> s diseases.
Course Description:	
<ul> <li>Clinical Approach To Patient</li> </ul>	<ul> <li>Symptoms And Signs In</li> </ul>
And History Taking	Urinary Tract System.
<ul> <li>General Examination</li> </ul>	Investigations In Urinary Tract
<ul> <li>Symptoms And Signs Of</li> </ul>	System.
Cardiovas <mark>c</mark> ular Diseases.	<ul> <li>Symptoms And Signs In</li> </ul>
Investigations In	Hematological Diseases.
Cardiovascular Diseases.	Investigations In
<ul> <li>Symptoms And Signs In</li> </ul>	Hematological Diseases.
<b>Respiratory Diseases.</b>	<ul> <li>Symptoms And Signs Of The</li> </ul>
Investigations In Respiratory	Skeletal System.
Diseases.	Investigations In Skeletal
<ul> <li>Symptoms And Signs In</li> </ul>	System.
Digestive System.	<ul> <li>Symptoms And Signs Of The</li> </ul>
Investigations In In Digestive	Nervous System.
System.	Investigations In The Nervous System.

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 Symptoms And Signs In Endocrine System.
 Investigations In Endocrine System.

**Educational Outputs The Student Should Acquire:** 

- 1- Knowing and understanding of course topics.
- **2- Practical applications.**
- **3- Learning to take the clinical history and getting information.**
- 4- Developing clinical judgment- communication skills.
- 5- Ability to analyze and manage data.
- 6- Professional ethics.

### <u> Teaching & Training Methods:</u>

- **1- Theoretical course.**
- 2- Practical training.
- 3- Educational multi-media tools.

### Assessment Strategy And Credits:

100 credits:

### Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

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**Evaluation of theoretical Knowledge 70 credits:** 

Automated examination at the end of the semester.



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# 5<sup>th</sup> Course: Microbiology (1)

**Course Title And Code:** 

#### Microbiology (1).

**Credit Hours:** 

3 theoretical hours/week (18 weeks) - 3 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

#### <u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

The aim of this course is to provide the necessary information for the study of medical microbiology and virology. We are concerned with human pathogens, understanding the mechanism of their spread, their pathogenicity, the virulence factors and the diseases resulting from them, the methods of identification of the pathogen, how to diagnose the disease and choose appropriate treatment and vaccines if any. Common bacterial resistances on antibiotics are also mentioned. In addition to theoretical information, the course aims to provide students with laboratory techniques related to microbiology.

- Introduction.
- Bacterial Cell Structure.
- Bacterial Physiology And Metabolism.
- Bacterial Genetics & Genetic Engineering.
- Classification And Taxonomy Of Bacteria.
- Bacterial Chemotherapy.
- Sterilization & Disinfection.
- Relationship Between Host And Infectious Agent.

- Gram Positive Cocci,
   Staphylococcus,
   Streptococcus, Entérocoques.
- Gram Negative Cocci, Neisseria, Moraxella.
- Gram Positive Bacilli, Corynebacterium, Listeria, Clostridium, Bacillus, Propionibacterium, Actinomyces, Nocardia.
- Enteric Gram-Negative Bacilli, Enterobacteriaceae,

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Pseudomonas, Vibrio, Campylobacter, Helicobacter Pylori.

- Respiratory Gram-Negative Bacilli, Bordetella, Haemophilus, Legionella.
- Anaerobic Bacilli.
- Brucella.
- Mycobacteria, Mycobacterium Tuberculosis, MOTT, Mycobacterium Leprae.
- Spirochetes, Treponema, Borrelia, Leptospira.
- Obligate Intracellular Bacteria, Chlamydia, Rickettsia.
- Mycoplasma, Urea Plasma.
- Applied Bacteriology.
- Viruses Structure, Viruses
   Classification And Taxonomy,



Viruses Culture, Diagnosis And Treatment Of Viral Infections.

- DNA Viruses, Herpes Viruses, Adenoviruses, Pox Viruses, Papovaviruses, Parvoviruses.
   RNA Viruses, Picornaviruses
  - (Enteroviruses And Rhinoviruses),

Ortho<mark>m</mark>yxoviruses, Paramyxoviruses

- (Parainfluenza Viruses, RSV, Measles Virus, Mumps Virus), Arboviruses, Roboviruses, Rubella Viruses, Reoviruses (Rotaviuses), Hepatitis Virusses, Rabies Virus,
- Astrovirus<mark>, Co</mark>ronavirus.
- Oncoviruses.
- Applied Virology.

### Educational Outputs The Student Should Acquire:

- 1- Access to the basic information of microbiology, which is considered the basis for understanding this science.
- 2- Encourage and train students on how to deal with scientific facts.
- **3- Encourage students to make a conclusion, interpret the results, and how to present them and discuss them.**
- 4- Make students familiar with laboratory techniques and skills in the field of microbiology, handling of laboratory materials, methods of sterilization and controlling the spread of diseases.
- 5- Learn how to diagnose the disease, determine treatment, choose the antibiotics.

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### **Teaching & Training Methods:**

**1- Theoretical course.** 

- **2- Practical training.**
- **3- Educational multi-media tools.**

# **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

# Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.

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# 6<sup>th</sup> Course: Epidemiology, Scientific Research, Medical Statistics

#### Course Title And Code:

Epidemiology, Scientific Research, Medical Statistics.

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 1 practical hour/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Identify Prevalent health problems in community, using various epidemiological strategies, identify determinants of health and principles of different levels of prevention.
- 2- Acquire the skills that enables him to design scientific research with a scientific method and implement it, then to write a scientific research in a right scientific way.
- 3- Collect and organize data and understand the statistical tests necessary for scientific research and interpretation of its results.

Epidemiology:	<ul> <li>Types Of Epidemiological</li> </ul>
<ul> <li>What Are Epidemiology</li> </ul>	Studies.
Origins?	Causation In Epidemiology
Recent Developments In	Contents V.
Epidemiology.	Epidemiology And Prevention:
Uses Of Epidemiology.	Chronic Non Infectious
Epidemiology And Public	Diseases.
Health.	<ul> <li>Infectious Diseases.</li> </ul>
<ul> <li>Measuring Health And</li> </ul>	Clinical Epidemiology.
Disease.	Environmental And
<ul> <li>Health Determinants,</li> </ul>	<b>Professional Diseases</b>
Indicators, And Risk Factors.	Epidemiology.

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#### **Basic Medical Statistics: Concepts And Tools:**

Concepts And Tools:	Scientific Research:
<ul> <li>Summarizing Data By Tables</li> </ul>	General Principles About
And Graphs.	Scientific Research.
<ul> <li>Means, Medians And Mode.</li> </ul>	The Concept Of Knowledge
<ul> <li>Variances, Standard</li> </ul>	And Its Different
<b>Deviations And Standard</b>	<b>Classifications.</b>
Errors.	<ul> <li>The Concept Of Science And</li> </ul>
Basic Concepts Of Statistical	Its Functions.
Inference.	<ul> <li>Scientific Methodology And</li> </ul>
Using Samples To Understand	Scientific Research.
Populations.	<ul> <li>Types Of Scientific Research.</li> </ul>
Confidence Intervals.	<ul> <li>Characteristics Of Scientific</li> </ul>

**Meta-Analysis.** 

**Research**.

Research.

Research.

Principles Of Scientific

Methods Of Scientific

Medical Literature Searching

And Information Retrieval.

**Documentation Of References.** 

Stages Of Scientific Research.

Writing And Representing

Scientific Research.

- Confidence Intervals.
- Hypothesis Tests.
- P-Values.
- **Statistical Power.** •
- T-Tests.
- Chi-Squared Tests For Cross S.
- Correlation.
- Regression.
- Linear Regression.
- Survival Analyses.
- Kaplan-Meier Survival Curves
- Sample Size Issues.
- **Educational Outputs The Student Should Acquire:**
- 1- Knowing and understanding of course topics.
- **2- Practical applications.**
- **3- Design and write scientific research with a scientific method.**
- 4- Concept of epidemiology and its applications in -public health.
- 5- Ability to collect data then, analyze, manage and interpret collected data.



Courses Description – 3<sup>rd</sup> Year – New Study Plan

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### **Teaching & Training Methods:**

**1- Theoretical course.** 

- **2- Practical training.**
- **3- Educational multi-media tools.**

# **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

# Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.

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# 7<sup>th</sup> Course: Ethics Of Medical Practice And Its Legislations

Course Title And Code:

**Ethics Of Medical Practice And Its Legislations.** 

**Credit Hours:** 

2 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year - 1<sup>st</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Review of Syrian medical and health legislations and laws related to the practice of medical professions.
- 2- Reviewing the legal, civil, penal and medical responsibility for practicing the medical profession in Syria according to Syrian legislations.
- 3- Reviewing doctors' duties towards patients, profession, society, colleagues and other health groups and doctors' rights.
- 4- Reviewing terms and elements of medical secret and its applications.
- 5- Discussing the most important moral theories of medicine ethics and ethics and knowing the advantages of each.
- 6- Discussion of the ethical issues in the fields of medicine and health care in daily practice.
- 7- Discussing ethical medical issues related to life and death, gene therapy, reproduction and organ transplantation.
- 8- Review and discussing ethical medical issues in the care of people with special needs and oppressed people medical ethics.
- 9- Reviewing the ethics and terms of applying medical researches and medical ethical committees.
- 10- Reviewing the terms and components of informed consent by putting forward a plan.

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# Course Description:

- Medical And Health Legislations.
- Legal, Civil, Penal And Medical Responsibility For Practicing The Medical Profession In Syria According To Syrian Legislations.
- Medical Secret.
- Medical Fault.
- The Duties Of Doctors
   Towards Patients, Profession, Society, Colleagues And Other Health Groups And Doctor's Rights.

- Shall 1979 Juni
- Moral Theories Of Medicine Ethics.
- Basic Concepts Of Medical Moralities.
- Ethical Medical Issues Related To Life And Death.
- Modern Genetics And Reproduction.
- Medical Issues Related To Some Health Cases.
- The Ethics Of Medical Researches And Medical Ethical Committees.
   Informed Consent.

Educational Outputs The Student Should Acquire:

- 1- Knowing and understanding of course topics.
- 2- Developing clinical judgment- communication skills.
- 3- Ability to analyze and manage data.
- 4- Professional ethics.

Teaching & Training Methods:

- 1- Theoretical course.
- 2- Educational multi-media tools.

**Assessment Strategy And Credits:** 

100 credits:

**Evaluation of theoretical Knowledge 100 credits:** 

Automated examination at the end of the semester.

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# 8<sup>th</sup> Course: General Pathological Anatomy (Pathology 1)

#### Course Title And Code:

**General Pathological Anatomy (Pathology 1).** 

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the general mechanisms of pathogenesis & morphological changes in microscopic structure of various diseases of organs.
- 2- Acquire the practical skills that enables him later to understand the microscopic changes occurring in systemic pathology (course of Systemic pathology in 4<sup>th</sup> year).

• Preface To Pathology.	Tumors.
• Cell Injury.	<ul> <li>Hemodynamic Disorders,</li> </ul>
Adaptation.	Thromboembolic Disease, And
<ul> <li>Apoptosis &amp; Necrosis.</li> </ul>	Shock.
Inflammation.	<ul> <li>Diseases Of Infancy And</li> </ul>
<ul> <li>Phagocytosis.</li> </ul>	Childhood.
Growth Factors &	Environmental And Nutritional
Interleukins.	Diseases.
Regeneration & Healing.	Diseases Of The Immune
<ul> <li>Infections.</li> </ul>	System.

- Sarcoid.
- **Educational Outputs The Student Should Acquire:**
- **1- Knowing and understanding of course topics.**
- **2- Practical applications.**

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- **3- Developing clinical judgment- communication skills.**
- 4- Ability to analyze and manage data.
- **Teaching & Training Methods:**
- **1- Theoretical course.**
- 2- Practical training.
- **3- Educational multi-media tools.**
- **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.

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# 9<sup>th</sup> Course: Microbiology (2)

**Course Title And Code:** 

Microbiology (2).

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

<u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

In this course students are introduced to the general concepts of parasitology, the relationship of parasitism that arise between living organisms is explained, the study here is limited to living organisms that parasitize humans and are pathogenic to them, the life cycle, pathogenicity, epidemiology, methods of diagnosis and treatment of diseases resulting from them are also studied, as well as the control procedure.

The course also aims at studying the medical fungi, the diseases resulting from it, and how to diagnose and treat it.

### Course Description:

### Protozoa:

- Rhizopoda:
  - 1- Entamoeba Histolytica.
  - 2- Another Entamoeba Parasitize Human:
    - Entamoeba Coli.
    - Entamoeba Gingivalia.
    - Entamoeba Hartmanii.
    - Entamoeba Polecki.
    - Dientamoeba Fragilis.
    - Iodoentamoeba Butschilii.
    - Endolimax Nana.

- Blastocystis Hominis.
- **3- Free Living Amoeba:** 
  - Naegleria Fowleri.
  - Acanthamoeba.
- Flagellates, Mastigophora:
  - 1- Giardia.
  - **2- Another Intestinal Flagellates:** 
    - Chilomastix Mesnilii.
    - Embadomonas Intestinalis.
    - Enteromonas Intestinalis.
    - Trichomonas Intestinalis.
  - **3- Trichomonas Vaginalis.**
  - 4- Leishmania.

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- 5- Trypanosoma.
- Sporozoa:
- 1- Toxoplasma Gondii.
- 2- Plasmodium.
- 3- Isospora.
- Ciliata, Ciliophora (Balantidiom Coli).

# <u>Helminthes:</u>

- Nematoda.
  - 1- Ascaris.
  - 2- Hookworm:
    - Ankylostoma Duodenale.
    - Necator Americanus.
  - 3- Cuta<mark>ne</mark>ous Larva <mark>Mig</mark>rans.
  - 4- Strongyloides Stercoralis.
  - 5- Visceral Larva Migrans.
    - Toxocara Canis.
  - 6- Entrobi<mark>u</mark>s Vermicularis.
  - 7- Trichuria Trichuris.
  - 8- Trichinella Spiralis.
  - 9- Dranculus <mark>M</mark>edinensis.
  - 10- Wuchereia Bancrofti.
  - 11- Burgia Malayi.
  - 12- Loa.
  - 13- Onchocera Volvulus.
- Trematoda:
  - 1- Hepatic Trematoda:
    - Fasiola Hepatica.
    - Fasiola Gigantica.
    - Dicrocoelium
       Dendriticum.
    - Opisthorchis Sinensis.



- **2- Intestinal Trematoda:** 
  - Fasciolopsis Buski.
  - Heterophyes Heterophyes.
- **3- Pulmonary Trematoda:** 
  - Paragonimus Westermani.
- 4- Schistosoma:
  - Schistosoma Hematobium.
  - Schistosoma Mansonii.
  - Schistosoms Japonicum.
  - Another Schistosoma: S. Intercalatum, S. Mekongi.

# Cestoda:

- **1- Diphyllobothrium Latum.**
- 2- Taenia Solium.
- 3- Taenia Saginata.
- 4- Hymenolepsis Nana.
- 5- Echinococcus Granulosus.

# Arthropods:

- Class Insecta:
  - **1- Anopluran:** 
    - Pediculus.
  - 2- Siphonaptera.
  - 3- Hemiptera:
    - Cimex Lectularis.
    - Reduviidae: Triatoma.
  - 4- Diptera:
    - Family Culividae:
      - 🗵 Culex.
      - 🗵 Aedes.
      - 🗵 Anopheles.
      - Culicoides.

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<ul> <li>Flies:</li> </ul>	4- Suppurative Tinea.
🗵 Phlebotomus.	5- Tinea Faciei.
🗵 Simulium.	6- Tinea Corporis.
🗵 Chrysops.	7- Tinea Cruris.
🗵 Glossina.	8- Tinea Pedis.
🗵 Musca Domestica.	9- Tinea Unguium.
5- Myasis.	10- Tinea Versicolor.
Class Arachnida:	<ul> <li>Candidiasis.</li> </ul>
1- Ticks.	Deep Mycosis:
2- Demodex.	1- Coccidioides Immitis.
3- Trombicola.	2- Paracoccidoides Brasiliensis.
4- Sarcoptes <mark>S</mark> cabiei Hominis <mark>.</mark>	3- Aspergillus.
Fungi:	4- Cryptococcus Neoformans.
Superficial Mycoses:	5- Histoplasma Capsulatum.
1- Tinea Capitis.	6- Sporothrix Schenckii.
2- Tinea Tonsurans.	7- Pneumocystis Carinii.
3- Tinea <mark>Fa</mark> vus.	Mycetomas
Educational Outputs The Student	Should Acquire:
1- Get basic information of parasit	tes.
2- Create a broad base of knowled parasitology.	lge and understanding of

- **3- Encourage students to make a conclusion, interpret the results, and how to present them and discuss them.**
- 4- Teach students how to get, handle, preserve, and transport samples.
- 5- Learn about the techniques for testing, especially the most common ones used in routine laboratory diagnostic work.
- 6- Practice laboratory techniques and skills in the field of parasitology.



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### **Teaching & Training Methods:**

**1- Theoretical course.** 

- 2- Practical training.
- **3- Educational multi-media tools.**

# **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

# Evaluation of theoretical Knowledge 70 credits:

Automated examination at the end of the semester.

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# 10<sup>th</sup> Course: Surgical And Emergency Skills

Course Title And Code:

Surgical And Emergency Skills.

**Credit Hours:** 

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

#### <u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the pathologies of many common surgical diseases, manifestations, differential diagnosis, investigation and how to treat. And he will understand the surgical principles and rules.
- 2- Acquire some surgical skills (wound closure, giving medications by injection...).
- 3- Acquire some skills relevant diagnosis (Temperature, pressure and pulse measurement...).
- 4- He will be trained on logical thinking through which he uses his theoretical knowledge, clinical, and practical skills to solve the diagnostic problems.

Course Description:

 Surgical Patient's Approach. Systems And Rules In Preparing Patient For Surgery. **Operating Theaters.**  Surgical Instruments. Vital Signes. Post-Surgery Care. Wound Closure. Sterilization And Disinfection. Wounds. Giving Medications By Surgical Draining. Injection. Vascular Wounds And Venous Cut Down. **Bleeding Management.**  Central Venous. • Dressing. **Catheterization. Centesis Procedures.** 

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Bites And Stings
Shock.
Transfusion.
Burns.
Cystoscopy And Basic Endourology.
Pressure Sores.
Incision And Drainage Of Abscess.
Local Anesthesia Application.
Paronychia.
Lipoma And Sebaceous Cyst.
Prosthesis In Surgery.
Subungual Foreign Body And Hematoma.

### Educational Outputs The Student Should Acquire:

- 1- Knowing and understanding of course topics.
- **2- Practical applications.**
- **3- Learning how to get information.**
- 4- Developing logical judgment- communication skills.
- 5- Ability to analyze and manage data.
- 6- Professional ethics.

Teaching & Training Methods:

- 1- Theoretical course.
- 2- Practical training.
- **3- Educational multi-media tools.**

**Assessment Strategy And Credits:** 

100 credits:

Practical examination 30 credits:

Through practical evaluation and laboratory experiments.

**Evaluation of theoretical Knowledge 70 credits:** 

Automated examination at the end of the semester.



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# **11<sup>th</sup> Course: General Pharmacology**

### Course Title And Code:

#### **General Pharmacology.**

**Credit Hours:** 

3 theoretical hours/week (18 weeks) - 2 practical hours/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

#### <u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the pharmacokinetics in the body.
- 2- Understand the mechanism of action of drug and how receptors work.
- 3- Understand drugs interactions and the side effects which may be caused by drugs.

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Pharmacokinetic	s:
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- 1- Absorption
- 2- Distribution
- 3- Metabolism
- **4- Elimination**
- Time Course Of Drug Concentration; Plasma Half-Life And Steady-State Concentration
- Pharmacodynamics:
  - 1- Qualitative Aspects: Receptors, Enzymes, Selectivity.
  - 2- Quantitative Aspects: Dose-Response, Therapeutic

- Efficacy, Potency,
- Tolerance.
- Cholinergic Drugs
- (Cholinomimetics).
- Adrenergic Drugs.
- Corticosteroids.
- Pain And Analgesics:
- 1- Opioid Analgesics: Mechanism Of Action.
  - 2- Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)
- Antibacterial Drugs.

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### **Educational Outputs The Student Should Acquire:**

- **1- Knowledge and understanding of course topics.**
- 2- Clinical cases.
- **3- Knowledge of different pharmaceutical.**
- 4- Learning how to get information.
- 5- Developing logical judgment- communication skills.
- 6- Ability to analyze and manage data.
- 7- Professional ethics
- <u> Teaching & Training Methods:</u>
- **1- Theoretical course.**
- 2- Practical training.
- **3- Educational multi-media tools.**
- Assessment Strategy And Credits:
- 100 credits:
- Practical examination 30 credits:
- Through practical evaluation and laboratory experiments.
- Evaluation of theoretical Knowledge 70 credits:
- Automated examination at the end of the semester.

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# 12<sup>th</sup> Course: Public Health And Occupational Health

Course Title And Code:

**Public Health And Occupational Health.** 

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 1 practical hour/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

<u>What Is The Main Purposes For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the General principles of Public Health and the pathologies of common Environmental factors affecting health and epidemiology.
- 2- Acquire the skills that enable him to understand the Healthy management, and programs.
- 3- Student practicing the ways of logical thinking, in order to use of theoretical knowledge and clinical skills for diagnosis and investigating the professional diseases and determining other factors affecting general health.

- General Health:
  - 1- Main Principles: I. Definition Of Health And Disease.
  - 2- Determinant Of Health And Disease.
  - 3- Standards Of Health And Disease.
- Epidemiology:
  - 1-. Definition, Importance & Purposes.

- 2- . Concept Of Causation & Main Epidemiological Models.
- 3-. Types Of Epidemiological Designs.
- 4-. Epidemics & Methods Of Investigation.
- 5- . Epidemiology Of Infectious Diseases.
- 6-. Scanning & Monitoring.

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- Health Management:
  - 1- Physician And The Science Of Health Management.
  - 2- Health Planning.
  - **3- Health Evaluation.**
  - 4- Health Care Systems.
  - 5- Managing Health Programs And Hospitals.

- Environmental Factors
   Affecting Health:
  - **1- Healthy Water.**
  - **2- Healthy Air.**
  - **3- Healthy Food.**
  - 4- Healthy House.
  - 5- Healthy School.
  - 6- Professional Health.
  - 7- Oth<mark>er</mark> Environmental Factors Affecting Health.

### **Educational Outputs The Student Should Acquire:**

- 1- Knowing and understanding of course topics.
- 2- Practical applications.
- **3- Learning to take the clinical history and getting information.**
- 4- Developing clinical judgment- communication skills.
- 5- Ability to analyze and manage data.
- 6- Professional ethics.
- Teaching & Training Methods:
- **1- Theoretical course.**
- **2- Practical training.**
- **3- Educational multi-media tools.**

Assessment Strategy And Credits:

100 credits:

Practical examination 30 credits:

Through practical evaluation.

**Evaluation of theoretical Knowledge 70 credits:** 

Automated examination at the end of the semester.



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# **13<sup>th</sup> Course: Evidence-Based Medicine**

- Course Title And Code:
- **Evidence-Based Medicine.**

**Credit Hours:** 

2 theoretical hours/week (18 weeks) - 1 practical hour/week.

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

<u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

- By the end of this course the student should be able to:
- 1- Use Evidence-based medicine to provide quality health care to individuals and populations.
- 2- Apply quality scientific research methods.
- 3- Integrate epidemiologic, socioeconomic, behavioral, cultural and community factors into patient care.

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### **Course Description:**

- What Is Evidence-Based Medicine.
- Goal Of EBM.
- Principles Of EBM.
- Finding The Current Best Evidence And Information Resource.

### • Therapy:

- **1- Fundamental Concepts.**
- 2- Need For A Control Group.
- **3- Randomization.**
- 4- Intention-To-Treat Analysis.
- 5- Critical Appraisal Questions For A Therapy Paper.
- 6- Validity Assessment.
- 7- Interpreting Results.

- Diagnostic Test: Fundamental Concepts:
  - **1- Predictive Values.**
  - 2- Sensitivity And Specificity.
  - **3- Validity Assessment.**
  - 4- Applicability Assessment.
- Diagnostic Test: Critical
   Appraisal:
  - **1- Systematic Review And** 
    - Meta-Analysis: Fundamental Concepts.
  - 2- Meta-Analysis: Critical Appraisal.
  - **3- Validity Assessment.**
- Prognosis And Validity Assessment.

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#### **Educational Outputs The Student Should Acquire:**

- **1- Define EBM and describe the steps of the practice of EBM.**
- 2- Rephrase issues arising in patient care as correct clinical questions (PICO questions).
- 3- Conduct efficient searches of clinical evidence using the most appropriate terms and other tools (filters, operators, and clinical queries) in databases available through the Internet, in accordance with the type of evidence of interest (PubMed, Cochrane Library, National Guideline Clearinghouse).
- 4- Critically appraise the most common types of clinical research papers (interventions, harm, diagnostic tests, and systematic reviews).
- 5- Apply the evidence to individual patients.

**Teaching & Training Methods:** 

- **1- Theoretical course.**
- 2- Practical training.
- 3- Educational multi-media tools.
- **Assessment Strategy And Credits:**

100 credits:

Practical examination 30 credits:

Through practical evaluation.

**Evaluation of theoretical Knowledge 70 credits:** 

Automated examination at the end of the semester.

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# 14th Course: Immunology And Blood Analysis

- Course Title And Code:
- Immunology And Blood Analysis.

**Credit Hours:** 

3 theoretical hours/week (18 weeks).

Level/Year At Which This Course Is Offered:

3<sup>rd</sup> year – 2<sup>nd</sup> semester.

<u>What Is The Main Purp<mark>os</mark>es For This Course:</u>

By the end of this course the student should be able to:

- 1- Understand the normal and pathologic immune responses and understand normal and abnormal hematology.
- 2- Understand mechanisms that cause disorders of different immune responses and disorders of different blood parameters.
- 3- Explain mechanisms of natural and pathologic immune responses and different hematologic disorders.
- 4- Use logical ways of thinking through which he uses of theoretical and practical knowledge in order to understand the different physic pathological disorders of immunity and blood, as the first step before moving to the clinical study.

- Introduction.
- Innate Immunity.
- Hematopoiesis.
- Lymph Tissues And Immune Cells.
- Antigens And Immunogens.
- Humoral Mediated Immunity.
- Complement.
- Cell Mediated Immunity.
- Cytokines.

- Protective Immunity (For Microorganisms And Tumors).
- MHC And Organ
   Transplantation.
- Immuno-Tolerance And Autoimmune Diseases.
- Immuno-Competency
   Assessment.
- Immuno-Deficiency Disorders.
- Serology.

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- Immunization.
- Blood.
- Red Blood Cells.
- CBC And Blood Smear.
- Blood Groups And ABO System.
- Rh System And Other Blood
  Systems.

- Hemolytic Disease Of The Fetus And Newborn.
- Donation And Blood Transfusion And Its Complications.
- Hemostasis And Blood Coagulation.

# Educational Outputs The Student Should Acquire:

- 1- Knowing and understanding of course topics.
- 2- Learning to take the clinical history and getting information.
- **3- Developing clin**ical judgment- communication skills.
- 4- Ability to analyze and manage data.
- **5- Professional ethics.**

Teaching & Training Methods:

- **1- Theoretical course.**
- 2- Educational multi-media tools.

### Assessment Strategy And Credits:

100 credits:

Evaluation of theoretical Knowledge 100 credits:

Automated examination at the end of the semester.

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