# ملحق رقم (٤)

Modules Catalogue | 2023-2024 | دليل المواد الدراسية

# University of Fallujah جامعة الفلوجه



First Cycle – Bachelor's Degree (B.Sc.) - analytic pathology

بكالوريوس \_ تحليلات مرضيه



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# 1. Overview

This module addresses the essential need for students to understand the concepts of pathological analyses to gain the Bachelor of Science degree. The program delivers (5°) Modules with (6000) total student workload hours and 240 total ECTS. The module delivery is based on the Bologna Process.

#### نظره عامه

يتناول هذا الدليل المواد الدراسية التي يقدمها برنامج التحليلات المرضيه للحصول على درجة بكالوريوس العلوم. يقدم البرنامج (٤٠) مادة دراسية، على سبيل المثال، مع (٦٠٠٠) إجمالي ساعات حمل الطالب و ٢٤٠ إجمالي وحدات أوروبية. يعتمد تقديم المواد الدراسية على عملية بولونيا.

# 2. Undergraduate Courses 2023-2024

#### Module 1

Code	Course/Module Title	ECTS	Semester
Path-111	principles of microbiology	8	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	93	107

# **Description**

To learn introduce students to the various groups of microorganism as well as bacteria and the methods of their isolation and diagnosis, in addition to acquiring the student skills in the methods of sterilization, disinfection, mode of transmission and other treatment possess.

Microbiology the science that deals with the components of micro-organisms and their functions, in addition, this science study how the bacteria is divided, differentiated, communicated, and death.

Microbiology as a discipline is unique in considering micro-organism function at several scales - the molecular, organelles and whole micro-organism. In order to understand how cells, function in context, it is vital that a wide range of methodological approaches are employed that can explore these different

scales.

#### Module 2

Code	Course/Module Title	ECTS	Semester
Path-112	Human cytology	7	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	78	97

# **Description**

This course includes study and examination of body fluids and tissues are at the cellular level in order to screen for and diagnose disease and aid treatment decisions. It also will study how cells look, form and function.

Cytology is the exam of a single cell type, as often found in fluid specimens. It's mainly used to diagnose or screen for cancer. It's also used to screen for fetal abnormalities to diagnose infectious organisms, and in other screening and diagnostic areas.

Cytology is a common method for determining a diagnosis in the medical world. Cytology tests use small amounts of bodily tissue or fluid in order to examine certain types of cells. Healthcare providers can use cytology tests for almost all areas of your body.

#### Module 3

Code	Course/Module Title	ECTS	Semester
Path-113	Analytical chemistry	5	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
4	2	63	62

# **Description**

Analytical chemistry deals with the composition and structure of matter. In other words, it is the art and science of determining what matter is and how much of it exists.

Analytical chemistry studies and uses instruments and methods to separate, identify, and quantify matter. In practice, separation, identification or quantification may constitute the entire analysis or be combined with another method. Separation isolates analytes. Qualitative analysis identifies analytes,

while quantitative analysis determines the numerical amount or concentration. Analytical chemistry consists of classical, wet chemical methods and modern, instrumental methods. Classical qualitative methods use separations such as precipitation, extraction, and distillation. Identification may be based on differences in color, odor, melting point, boiling point, solubility, radioactivity or reactivity. Classical quantitative analysis uses mass or volume changes to quantify amount. Instrumental methods may be used to separate samples using chromatography, electrophoresis or field flow fractionation.

#### Module 4

Code	Course/Module Title	ECTS	Semester
Path-114	Occupational laboratory safety	3	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	47	28

# **Description**

The Laboratory Safety program deals with safety and compliance in all research and teaching laboratory spaces to reduce the risk of injury and exposure, decrease the risk of property loss, lessen the likelihood of lost research, and minimize environmental damage.

Laboratory safety practices include appropriate facilities and equipment, adequate training, personal protective equipment, chemical management, standard operating procedures, waste handling, signage, proper laboratory practices and safe working conditions. Laboratory safety helps protect the community of students, faculty, staff and visitors, and includes oversight for compliance and safety, training and outreach, institutional support for incident response, building design, and collaboration with committees.

### **Module 5**

Code	Course/Module Title	ECTS	Semester		
Sci-101	Computer	3	1		
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)		
2	2	48	28		
	Description				

Computer science is the study of computation, information, and automation. Computer science spans theoretical disciplines (such as algorithms, theory of computation, and information theory) to applied disciplines (including the design and implementation of hardware and software such as Microsoft word, Microsoft excel).

# Module 6

Code	Course/Module Title	ECTS	Semester
<b>Uui-101</b>	English Language	2	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	42	8

# **Description**

This section includes a description of the module, 100-150 words

# Module 7

Code	Course/Module Title	ECTS	Semester
Uni-103	Human Rights &Freedom & democracy	3	1
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	30	20

# **Description**

This section includes a description of the module, 100-150 words

# **Semester 2:**

#### Module 8

Code	Course/Module Title	ECTS	Semester
Path-123	Medical physics	5	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)

# **Description**

Medical physics deals with the application of the concepts and methods of physics to the prevention, diagnosis and treatment of human diseases with a specific goal of improving human health and well-being. Since, medical physics has been included as a health profession according to International Standard Classification of Occupation of the International Labour Organization.

Although medical physics may sometimes also be referred to as biomedical physics, medical biophysics, applied physics in medicine, physics applications in medical science, radiological physics or hospital radio-physics, a "medical physicist" is specifically a health professional

#### Module 9

Code	Course/Module Title	ECTS	Semester
Path-124	Biostatistics	4	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	63	37

# **Description**

This section includes a description of the module, 100-150 words

#### Module 10

Code	Course/Module Title	ECTS	Semester

Uni-102	Arabic Language	2	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	63	37

# Description

This section includes a description of the module, 100-150 words

#### **Module 11**

Code	Course/Module Title	ECTS	Semester
Uni-102	جرائم حزب البعث	2	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	0	32	18

# **Description**

This section includes a description of the module, 100-150 words

### Module 12

Code	Course/Module Title	ECTS	Semester
Path-121	Principle of pathological analysis	8	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	2	93	107

# **Description**

The course is primarily concerning the diagnosis of disease. It involves the examination of tissues, organs, bodily fluids, and autopsies in order to study and diagnose disease.

Pathological analysis concerns the analysis of blood, urine and tissue samples to examine and diagnose disease. Examples of the information clinical pathology laboratories may provide include blood count, blood clotting and electrolyte results. A clinical pathologist is usually trained in microbiology,

hematology or blood banking, but not at the same expert level as someone who specializes in one of these fields.

Principles pathological analysis – scientific study of the Interested in studying laboratory analysis in humans. It is to identify between tests according the samples type.to understand of introduction for pathological analysis, understand of complete blood count, understand of blood groups and Rh system, understand of kidney function tests. and to understand of liver function tests. Indicative content includes the following.

<u>1-</u>Liver function test ALB, GOT, GPT, ALP, GGT, BLOOD UREA, creatinine, uric acid, electrolyte, lipid profile, c-reactive protein, cardiac function, pancreatic function, diabetes profile, thyroid function, reproductive hormones

2-practical laboratory test are Liver function test ALB, GOT, GPT, ALP, GGT, BLOOD UREA, creatinine, uric acid, electrolyte, lipid profile, c-reactive protein, cardiac function, pancreatic function, diabetes profile, thyroid function, reproductive hormones.

#### Module 13

Code	Course/Module Title	ECTS	Semester
Path-122	Human anatomy	7	2
Class (hr/w)	Lect/Lab./Prac./Tutor	SSWL (hr/sem)	USWL (hr/w)
2	۲	78	97

# **Description**

Human anatomy – scientific study of the morphology of the adult human. It is subdivided into gross anatomy and microscopic anatomy. Gross anatomy (also called topographical anatomy, regional anatomy, or anthroponomy) is the study of anatomical structures that can be seen by unaided vision. Microscopic anatomy is the study of minute anatomical structures and the international standard for anatomical nomenclature.

# **Contact**

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