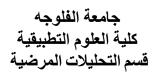# University of Fallujah

جامعة الفلوجه

كلية العلوم التطبيقية

قسم التحليلات المرضية

First Cycle – Bachelor's degree (B.Sc.) – pathological analyses

بكالوريوس تحليلات مرضية

توزيع العبء الدراسي للطالب

اسم المقرر	**Principle of pathological analysis**	رمز المقرر	Path-121
نوع المقرر	Core	عدد الوحدات الاوربية (ECTS)	7
SWL(hr/sem)	175	تاريخ الاعداد	2023/5/30

نوع النشاط	الساعات المجدولة SSWL	الساعات غير الجدولة USSWL	ساعة لكل اسبوع	عدد الاسابيع	العبء الكلي للنشاط
محاضرات	محاضرات في القاعة الدراسية		2	15	30
المختبر	دوام المختبر		2	15	30
المناقشات	المناقشات		1	15	15
مشروع عملي*	مشروع عملي		0	0	0
		التهيئة للمشروع	1	9	9
تحضير الدروس		تحضير الدروس اليومي	٣	15	45
العروض التقديمية*	القاء العرض التقديمي		0	0	0
		التهيئة للعرض التقديمي	5	2	10
الامتحانات اليومية		التهيئة للامتحانات اليومية	5	3	15
امتحان نصف الفصل*	الامتحان		0	0	0
		التهيئة للامتحان	6	1	6
امتحان نهاية الفصل	الامتحان		3	1	3
		التهيئة للامتحان	12	1	12
العبء الكلي للمادة خلال الفصل					١٧٥

*لاتوجد ساعات مجدولة لهذه النشاطات كون تم استيفاؤها ضمن الصفوف الدراسية

توقيع :

اسم مدرس المادة:

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**Principles of Microbiology**	Module Delivery
Module Type	**Core**	☒ **Theory**
Module Code	**Path-111**	☒ **Lecture**
ECTS Credits	**8**	☒ **Lab**
		☐ **Tutorial**
SWL (hr/sem)	**200**	☐ **Practical**
		☐ **Seminar**

Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	Name: م.د. لهيب رجب حماد	**e-mail**	E-mail: laheebrh@uofallujah.edu.iq
Module Leader's Acad. Title	Ph>D	**Module Leader's Qualification**	Ph.D.
Module Tutor	Sabreen Adil salman	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

Prerequisite module	yes	Semester	1
Co-requisites module	yes	**Semester**	2

Module Aims, Learning Outcomes and Indicative Contents أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives أهداف المادة الدراسية	To learn introduce students to the various groups of microorganism as well ae 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. 1. Covers structure and morphology of micro-organisms, nutritional requirements and growth, sterilization and disinfection. 2. Identify the characteristics and basic microbial genetics Explain the processes of growth and development in individuals and populations. 3. Design and critically assess the scientific collection and handling of clinical specimens, culture techniques for clinical specimens and expected pathogens specimens, culture techniques for clinical specimens and expected pathogens investigations they perform. 4. Antibiotic sensitivity testing, and assay, leading to demonstrate critical thinking skills. 5. Illustrate the importance and diversity of microorganisms in the environment as well as their importance to humans. 6. Relate understanding of classification schemes applied to micro organisms, including those based on molecular criteria. 7. Through the study of a variety of microbes, students will gain an appreciation of the diversity of pathogens and pathogenic mechanisms in human infectious diseases. 8. Distinguish the principal features of bacterial cells, particularly those features which differ from eukaryotic cells, including genetic information and its transfer. 9. Provide knowledge of how to study and cultivate microorganisms 10. Outline the relationship between bacteria cell structure and function. 11. Identify the main groups of fungi, and exemplify an understanding of their life histories, including their economic consequences, as well as their beneficial and detrimental effects on humans. 12. Provide students with an overview of microbiology and infectious disease within the community and hospital setting, introducing core concepts of microbiology, covering bacteriology, virology, mycology, and parasitology. 13. Increase awareness of the different types of micro-organisms, key characteristics they possess, and the differences between them and an appreciation that micro-organisms are both essential for normal health and as pathogens cause infectious disease. 14. They will examine the diversity of the structure and function of these microorganisms, emphasizing the fundamental role that they play in our everyday lives by using examples in medicine and biotechnology.

	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.
	Upon successful completion, students will have the knowledge and skills to:
	1. Describe the diversity and replication of micro-organisms;
	2. Explain the role of compartmentalization and signaling in microbiology;
	3. Interpret and explain key experiments in the history of microbiology;
	4. Evaluate and apply knowledge of modern techniques in microbiology.
	Interpret, analyses, describe and present new experimental data.
	Students who successfully complete this module will be able to:
	-Describe the basic architecture of prokaryotic cells, including structure and function of key components.
	-Describe regulatory mechanisms that allow micro-organisms to respond to changes in their environment.
	-Design experimental strategies to investigate microbiological processes
	Solve problems relating to microbiological processes in health and disease
	-Analyses and interpret experimental data
	-Integrate concepts from across the module to explain higher order bacterial function.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Describe the specialized molecular structures found in different microorganisms including prokaryotes (bacteria and archaea), viruses, and single-cell eukaryotes (algae, fungi, and protozoa), and correlate the structures to their function.
	2. Describe microorganisms as agents of disease and the molecular mechanisms responsible for different pathologies.
	3. Recall the practical applications of microorganisms in the production of chemicals such as antibiotics and high-value metabolites.
	4. Demonstrate knowledge of the underlying concepts and principles associated with microbial structure and function.
	5. Demonstrate the ability to isolate and identify bacteria (to species level) using appropriate culture and diagnostic techniques.
	6. Evaluate the factors that are involved with the epidemiology, pathogenesis, detection, diagnosis, and control of infectious diseases (including antibiotics, vaccines, and antibody therapies).
	7. demonstrate knowledge and understanding of the mechanisms of microbial pathogenesis and the outcomes of infections, including chronic microbial infections.
	8. demonstrate knowledge of the laboratory diagnosis of microbial diseases and practical skills, including isolation and

	characterization of specific microbes in clinical specimens.
	9. demonstrate advanced knowledge and understanding of the nature of pathogenic microorganisms (predominantly viruses and bacteria) and basic criteria used in the classification/taxonomy of these microorganisms.
	10. Demonstrate ability to carry out standard microbiological techniques according to protocols to minimize infection in accordance with local microbiological safety regulations.
	11. Outline the major microbial metabolic processes and describe how these influence growth and survival.
	12. Describe factors that influence growth and survival in microorganisms
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1- Microbial Growth and Reproduction The microbial (bacterial) growth curve and its phases. Prokaryotic cell cycle. Phenomena associated with the growth curve. Microbial metabolism. Endosporulation. Chemotaxis. Biofilm structure & function, bacterial conjugation, transformation & transduction. [18 hrs] 2-Bacterial diseases Clinically important taxonomic groups of bacteria. Types of clinical specimens and processes for isolation and identification of bacteria. Clinical characteristics of bacterial diseases. Preventative strategies and therapies. Microbial determinants of pathogenicity and virulence. Role of biochemical changes in diagnosis and monitoring of disease. [17 hrs] 3-Viral Replication Strategies Viruses as pathogens, effects on the host, role of the immune system. Introduction to viral replication, a summary of the different types of viral genome. Influenza virus replication. Entry into cell and site of replication. Segmented genome structure. Transcription/replication of the genome, translation of virus proteins. Assembly and exit from the cell. [10 hrs] 4- Fungi The morphology and taxonomy of pathogenic fungi. The mycoses - superficial and cutaneous, subcutaneous, and systemic. Virulence factors, immunology, aspects of treatment. [14 hrs] 5- Parasitic Protozoa Gives an insight into the many and varied associations between species that we call parasitism. discusses the protozoa of

	medical importance. These are very diverse and include parasites responsible for major diseases such as malaria, sleeping sickness, and amoebiasis. [10 hrs].
	6- Parasitic Helminths
	considers the worm (helminth) parasites causing diseases such as schistosomiasis, elephantiasis, and river blindness. [10 hrs].
	7- Antibiotics and vaccines
	Describe the nature of antibiotics and their effect on microbe if they are inhibitory or killer of the microbe, and the parts it targets in the microbial cell, while vaccines were described in how they stimulate the immune system, in addition to knowing vaccine types
	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. This practical module provides students with a broad overview of the techniques that are commonly used in modern molecular microbiology research. The information provided will be relevant to the study of the structure and function of bacteria from fungi, algae and virus, and their parts. The lectures will describe the theories and principles behind each of the methods, in addition to discussing their practical aspects and limitations. Workshops will allow for group discussion around the latest advancements in microbiology techniques. The laboratory work will consist of a series of experiments that demonstrate fundamental methodologies in microbiology, thereby introducing the process of systematic scientific research and critical evaluation of results obtained. The practical exercises, carried out in research laboratories, include hands-on experience of molecular microbiology; bacteria and fungi cell culture; morfological assays; use of agricultural and the biochemecal tests; and microscopy examination, staining and its associated techniques. The practical component will run over 5 consecutive days during the trimester break.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Lectures and tutorials provide background information on each type of microbe and introduce the microbe identification methods. The practical classes enable students to develop the skills to identify microorganisms and learn how to use their knowledge of diseases and microorganisms to aid in the interpretation the laboratory tests. The practical is considered essential to develop the skills needed to take the practical-based exam. |

<table>
<tr><td colspan="4" align="center">**Student Workload (SWL)**</td></tr>
<tr><td colspan="4" align="center">الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا</td></tr>
<tr>
<td>**Structured SWL (h/sem)**
الحمل الدراسي المنتظم للطالب خلال الفصل</td>
<td>79</td>
<td>**Structured SWL (h/w)**
الحمل الدراسي المنتظم للطالب أسبوعيا</td>
<td>7</td>
</tr>
<tr>
<td>**Unstructured SWL (h/sem)**
الحمل الدراسي غير المنتظم للطالب خلال الفصل</td>
<td>96</td>
<td>**Unstructured SWL (h/w)**
الحمل الدراسي غير المنتظم للطالب أسبوعيا</td>
<td>6</td>
</tr>
<tr>
<td>**Total SWL (h/sem)**
الحمل الدراسي الكلي للطالب خلال الفصل</td>
<td colspan="3" align="center">**175**</td>
</tr>
</table>

Module Evaluation					

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	3	15% (15)	2, 5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	**History of microorganism discovery** Definition and Introduction of microbiology. - Why Study Microbiology? -Microorganism features. - Themes in Microbiology and its field.
Week 2	**Types of Pathogenic microorganism** Classification of Microorganisms - Prokaryotic cell. - bacterial cells.

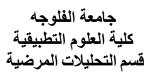|	
	-Fungi Cell and Algae Cell
	- Organism Nomenclature
	- Bacterial Taxonomy Based on Bergey's Manual
Week 3	A brief history of Microbiology
	-Spontaneous Generation theory.
	-Pasteur's Epic Experiments.
	- The Germ Theory of Disease.
	- The first vaccines.
	Ways that Can be Control Infectious Diseases.
	-Immunity
	- Public Hygiene
	- Chemotherapy.
Week 4	Bacterial Cell Structure
	- Bacterial Cell Organization Common Features.
	- Uptake of Nutrients
	-Bacterial cell wall synthesis
Week 5	- Types of bacteria
	-Gram-Positive Cell Walls
	-Gram-Negative Cell Walls
	-Components Outside of the Cell Wall.
	-Cells that Lose a Cell Wall.
Week 6	Midterm exam
Week 7	Bacterial Growth
	-Binary Fission.
	- Generation time.
	- Bacterial Growth Curve.
Week 8	- Factors Affecting Bacterial Growth.
	-Bacterial Counts.
Week 9	-Microbial pathgenicity and diseases
	- Prevention of Host Defenses.
Week 10	Antigenic Variation
	- Penetration into Host Cytoskeleton.
	- Damage to Host Cells.
Week 11	Types of toxins produced by bacteria.

	-Pathogenic Properties of Virus. -Eukaryotic Pathogens.
Week 12	Steps involved in the pathogenesis of the bacteria. -Virulence determinants. -Survival In The Host.
Week 13	Immunopathology.
Week 14	Some Organisms of Medical Interest.
Week 15	Some major Exotoxins. -Organism Disease Toxin. -Food poisoning Enterotoxin. -Heat stable toxins. -Lethal toxin.
Week 16	**FINAL EXAM**

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Lab saftey
Week 2	Lab 2: Instruments of Lab microbiology and
Week 3	Lab 3: Apparatus of lab microbiology
Week 4	Lab 4: Sterilization
Week 5	Lab 5: Specimens of patients
Week 6	Lab 6: Diagnoses of microorganisms methods
Week 7	Lab 7: Staining technique
Week 8	Lab 8:simple stain
Week 9	Lab 9: Differential stain
Week 10	Lab 10: Biochemical tests
Week 11	Lab 11 : Culture media
Week 12	Lab 12: Bacterial Culturing methods
Week 13	Lab 13: Microorganisms counting
Week 14	Lab 14: Culture of fungi
Week 15	Lab 15: Viral culture

<table>
<tr><td colspan="3">Learning and Teaching Resources
مصادر التعلم والتدريس</td></tr>
<tr><td></td><td>Text</td><td>Available in the Library?</td></tr>
<tr><td>Required Texts</td><td>Jawetz, Melnick, & Adelberg's Medical Microbiology Lippincott® Illustrated Reviews: Microbiology (Lippincott Illustrated Reviews Series) 4th Edition</td><td>Yes</td></tr>
<tr><td>Recommended Texts</td><td>DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents.</td><td>No</td></tr>
<tr><td>Websites</td><td></td><td></td></tr>
</table>

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX** – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information	
معلومات المادة الدراسية	

		Module Delivery	
Module Title	**Analytic Chemistry**	**Module Delivery**	
Module Type	Core	☒ Theory	
Module Code	**Path-113**	☒ Lecture	
ECTS Credits	**5**	☒ Lab	
		☐ Tutorial	
SWL (hr/sem)	**125**	☐ Practical	
		☐ Seminar	

Module Level	1	**Semester of Delivery**	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	Name: Mohammad Talib	**e-mail**	E-mail:
Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Mohammad Abid Mohammad	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	yes	**Semester**	1
Co-requisites module	yes	**Semester**	2

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	

Module Objectives أهداف المادة الدراسية	To learn students the structures of cells with functional correlations, cell communications, signaling, divisions, differentiations, cell death with focusing on the most prevalent cell diseases. The primary objective of this from this course is to provide a thorough background in the chemical principles that are particularly important to instrumental analysis. Second, we want students to develop an appreciation for the difficult task of judging the accuracy and precision of experimental data and to show how these judgments can be sharpened by applying statistical methods to analytical data. Third, we aim to introduce abroad range of modern and classic techniques that are useful in analytical chemistry. Fourth, we hope that, with the help of this book, students will develop the skills necessary to solve quantitative analytical problems and, where appropriate, use powerful spreadsheet tools to solve problems, perform calculations, and create simulations of chemical phenomena. we aim to teach laboratory skills that will give students confidence in their ability to obtain high-quality analytical data and that will highlight the importance of attention to detail in acquiring these data. -That the student be able to complete all procedures related to pathological analyzes -That the student be able to use and maintain laboratory equipment for pathological analyzes -That the student be able to solve problems related to laboratory tests and taking pathological samples. -The student will be able to acquire basic knowledge and skills in the chemistry science of and knowledgeable about how to prepare the various concentrations solutions in addition to personification of organic and bio compounds. -Design and critically assess the scientific investigations they perform. -Demonstrate critical thinking skills.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	When instrument users are familiar with the fundamental principles underlying modern analytical instrumentation, they can make appropriate choices and efficient use of these measurement tools. For any given analytical problem, a seemingly bewildering number of alternative methods exist for obtaining the desired information. By understanding the advantages and limitations of the various tools, suitable choices can be made, and the undergraduate student can be attuned to limitations in sensitivity,

	precision, and accuracy. In addition, student of instrumental methods should
	be aware of the various techniques for calibrating and standardizing
	instruments, and validating the measurements made. It is
	therefore our objective to give undergraduate student a thorough
	introduction to the principles of instrumental analysis, including
	spectroscopic, electrochemical, chromatographic, radiochemical,
	thermal, and surface analytical methods
	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.
	Upon successful completion, students will have the knowledge and skills to:
	- Obtaining knowledge and understanding of tissue types, the most important types of bacteria, parasites and pathogenic viruses, the foundations of communicable diseases, and the causes of biological resistance.
	- Obtaining knowledge and intellectual understanding of the physiology of the human body and its immune mechanisms
	- Acquire knowledge of clinical and biological chemistry
	- Familiarity with laboratory equipment, how to use it, and how to take pathological samples.
	-This course description provides a brief summary of the main characteristics of the course and the expected learning outcomes of the student to demonstrate whether he has made the most of the learning opportunities available. It must link between them and the program description.
	-Analyses and interpret experimental data
	-Integrate concepts from across the module to explain higher order cell function
Indicative Contents المحتويات الإرشادية	Analytical chemistry is the science of obtaining, processing, and communicating information about 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 is also focused on improvements in experimental design, chemometrics, and the creation of new measurement tools. Analytical chemistry has broad applications to medicine, science, and engineering.

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		**200**	

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Material, atom structure, periodic table and bonds
Week 2	Solutions and their concentrations
Week 3	Solutions and their concentrations
Week 4	Statistical processing of analytical data
Week 5	Chemical equilibria
Week 6	Acid base theory, pH, puffer solutions
Week 7	Precipitation methods, Gravimetric calculations
Week 8	Spectroscopy
Week 9	Organic chemistry, Alkanes, Alkenes, Alkynes
Week 10	Alcohols, Properties, Reactions

Week 11	Aldehydes, Ketones, Properties, Reactions
Week 12	Carboxylic acids, Properties, Reactions
Week 13	Carboxylic acids, Properties, Reactions
Week 14	Aromatic compounds, Phenols
Week 15	Amines, Nitro compounds
Week 16	FINAL EXAM

	Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر
	Material Covered
Week 1	Introduction tools in the lab
Week 2	How prepare solution
Week 3	Standard solution
Week 4	Qualitative analysis
Week 5	Detection of cation
Week 6	Detection of anion
Week 7	Water hardness Determination
Week 8	Oxidation Reduction titrations part 1 Oxidation Reduction titrations part 2
Week 10	Complexion titrations part 1
Week 11	Complexion titrations part 2
Week 12	Measurement Solubility
Week 13	Perpetrations titrations part 1
Week 14	Perpetrations titrations part 2
Week 15	EXAM

	Learning and Teaching Resources مصادر التعلم والتدريس	
	Text	**Available in the Library?**
Required Texts	1-Principles of Instrumental Analysis 7e By Douglas A. Skoog, 2-Principles of instrumental analysis 6th ed by Skoog, Holler, Crouch,Modern Instrumental Analysis 47 (Comprehensive Analytical Chemistry) - S. Ahuja, N.	Yes

Jespersen .	
3-Doulas A. Skoog , Donald M. West, F. James, Stanley R. Crouch, Fundamentals of Analytical Chemistry,9Edn.,2014, Brooks/Cole,Cengage, Learning, New, York,1090	
Yes4-Daniel C. Harris, Quantitative Chemical Analysis, 7 Edition,2007,published by W. H. Freeman and Company, New York	
5-Gary D. Christian,Purnendu K. Dasgupta and Kevin A. Schug , Analytical Chemistry, 6th Edition, 2004, John Wiley and Sons, Inc.	
Recommended Texts	No
Websites	

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مخطط الدرجات

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MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Computer**	Module Delivery
Module Type	**Basic**	☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar
Module Code	**Sci-101**	
ECTS Credits	**3**	
SWL (hr/sem)	**75**	

Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	Name: shomus hamadi	**e-mail**	E-mail: alaasulaiman3@gmail.com
Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Saif Mammdoh + Baker	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	yes	**Semester**	1
Co-requisites module	yes	**Semester**	2

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Objectives	The independent processing of problem tasks is planned for each focus. The focus is on the application of standard methods (algorithms) and tools. In addition, numerous exercises with self-monitoring options are provided to

أهداف المادة الدراسية	deepen and consolidate the subject matter. Through the practical exercises, key competences such as independent work, teamwork and cooperation skills, self-learning competence, transfer between theory and practice, argumentation about given content are to be developed. The course aims to teach students the following skills during the semester: 1. Types of computers and software. 2. Identify desktop icons and how to deal with them. 3. Components of my computer. The module is divided into a theoretical and a practical part. In the theoretical part, basic topics of computer science are covered. Alongside this, programming skills in the Python programming language is taught in the practical part. The knowledge acquired is practiced and implemented in projects. Meaningful references to other subject areas, such as mathematics, are established.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks. • Have the knowledge of fundamental in Computing Science that includes basic theory and concepts of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering, Information Management and Digital Resilience, also the advance topics of either Artificial Intelligence, Data Science, Computer Network, Cloud Computing or Internet of Things. • Apply the knowledge of computing and other related disciplines to analyze and identify solutions for any computing-based problem. • Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements by applying computer science theory and software development fundamentals. • After attending this course for one semester, students are expected to be able to explain the basic concepts of programming using the C language, and create basic application programs using the basic instructions in the C language library. On successful completion of this module, the student should be able to: • Demonstrate knowledge and understanding of core ideas and foundations of unsupervised and supervised learning on vectoral data • Explain principles and techniques for mining textual data • Demonstrate understanding of the principles of efficient web-mining algorithms • Demonstrate understanding of broader issues of learning and generalization in machine learning and data analysis systems
Indicative Contents المحتويات الإرشادية	Machine learning studies how computers can autonomously learn from available data, without being explicitly programmed. The 'information revolution' has generated large amounts of data, but valuable information is often hidden and hence unusable. The module will provide a solid foundation to machine learning and advanced data analysis. It will give an overview of the core concepts, methods, and algorithms for analyzing and learning from data. The emphasis will be on the underlying theoretical foundations, illustrated through a set of methods widely used in practice. This will provide the student with a good understanding of how, why and when do various modern machine learning and data analysis methods work.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	1. Students learn about the most important word processing programs. 2. The student recognizes the most important steps required in installing programs. 3. The student learns how to maintain and maintain the computer.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		**200**	

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Computer Architecture
Week 2	Computer Languages

Week 3	Visual Basic Language and its importance
Week 4	Algorithms.
Week 5	Flow Charts
Week 6	Ways for Declaring Variables in Visual Basic
Week 7	Conditional Statements
Week 8	Midterm exam
Week 9	Examples in Conditional Statements
Week 10	Loop Statement.
Week 11	Examples in Loop Statement
Week 12	Examples to concatenate between various tools in Visual Basic.
Week 13	Examples of visual basic
Week 14	Rehearsal
Week 15	Software life cycle, algorithm, programmed design, programming languages (compiler, interpreter), tools (editor, IDE) • Variables and data types (esp. list, dictionary) • Input and output
Week 16	FINAL EXAM

Delivery Plan (Weekly Lab. Syllabus)	
المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Introduction to Agilent VEE and PSPICE
Week 2	Lab 2: Thévenin's / Norton's Theorem and Kirchhoff's Laws
Week 3	Lab 3: First-Order Transient Responses
Week 4	Lab 4: Second-Order Transient Responses
Week 5	Lab 5: Frequency Response of RC Circuits
Week 6	Lab 6: Frequency Response of RLC Circuits
Week 7	Lab 7: Filters

Learning and Teaching Resources		
مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Fundamentals of Electric Circuits, C.K. Alexander and M.N.O Sadiku, McGraw-Hill Education	Yes
Recommended Texts	DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents.	No
Websites	https://www.coursera.org/browse/physical-science-and-engineering/electrical **engineering**	

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information	
معلومات المادة الدراسية	

Module Title	**English Language**	**Module Delivery**	
Module Type	**Core**	☒ **Theory**	
Module Code	**UNI-101**	☐ **Lecture**	
ECTS Credits	**2**	☒ **Lab**	
SWL (hr/sem)	**50**	☐ **Tutorial**	
		☐ **Practical**	
		☒ **Seminar**	

Module Level	1	**Semester of Delivery**	2
Administering Department	pathological analyses	**College**	Applied Science
Module Leader	Waleed Khalid	**e-mail**	
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name/	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		**Semester**	2
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims	1. To encourage students to use English as a second foreign language.

أهداف المادة الدراسية	2. To motivate students to use as many conversational methods as possible.
	3. To prepare students to study scientific subjects related to physics, especially reading and writing.
	3. To support students in projects provided by the Ministry to students on scholarships to foreign universities to develop their language skills.
	4. Given the openness to the outside world, it has become necessary for students to have the capabilities, as the most promising group in society, to speak more than one language, not just the mother tongue.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. The student recognizes the importance of the English language. 2. The student recognizes the important and useful scientific sites in English. 3. The student gets acquainted with the general and specific details and how to deal with the English language in scientific and practical life. 4. The soft skills objectives of the course. 5. The student acquires skills in knowing the basics of the English language. 6. The student acquires skills in communicating through direct conversation and listening and receiving information in all its forms. 7. Work hard and sincerely to reach the prestigious scientific level, benefiting from all models and means available in the college or university. 8. The student acquires the ability to collect information and work with it, and the student acquires the ability to know important aspects and how to deal with the English language and benefit from it in life.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following: 1. Introduction (what will we learn?), Reading: what is physics /intensive reading? [9 hrs] 2. Writing: Daily Routine, Grammar: Tenses / Simple tense, present tense, past tense, Future tense [9 hrs] 3. practice Writing: Daily Routine and solve Grammar: Tenses / Simple tense, present tense, past tense, Future tense. [9 hrs] 4. Writing: Free Subject (student choose their own subject and Listening: Level (1)/ simple and short conversation [9 hrs] 5. Revision problem classes [3 hrs]. 6. Grammar: Perfect tense/ past perfect tense, present perfect tense, Examples and Listening: level (2)/personal conversation. [9 hrs] 7. Reading: General books of Physics, Writing: Evaluate your experience in learning the English language as an under graduated student. [9 hrs]

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	63	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	37	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	100		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 10, 11 and 12
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment		100% (100 Marks)			

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

Week	Material Covered
Week 1	Introduction (what will we learn?), Reading: what is physics /intensive reading.
Week 2	Writing: Daily Routine, Grammar: Tenses / Simple tense, present tense, past tense, Future

	tense.	
Week 3	Practice on Writing: Daily Routine, also Grammar: Tenses / Simple tense, present tense, past tense, Future tense.	
Week 4	Writing: Free Subject (student choose their own subject, Listening: Level (1)/ simple and short conversations.	
Week 5	Application in Writing: Free Subject (student choose their own subject, Listening: Level (1)/ simple and short conversations.	
Week 6	Solved problems.	
Week 7	Mid-term Exam	
Week 8	Grammar: Perfect tense/ past perfect tense, present perfect tense, Examples, Listening: level (2)/personal conversation.	
Week 9	Reading: General books of Physics by students.	
Week 10	Writing: Evaluate your experience in learning English as an undergraduate student.	
Week 11	Reading reports by students.	
Week 12	Make a general conversation between the students in groups (as a workshop).	
Week 13	Practice listening to the paragraph on different levels.	
Week 14	open discussion	
Week 15	**The preparatory week before the Final Exam**	

Learning and Teaching Resources		
مصادر التعلم والتدريس		
		Available in the Library?
Required Texts	New Headway / English Course/ John and Liz Soars / OXFORD.	yes
Recommended Texts	New Headway / English Course/ John and Liz Soars / OXFORD.	No
Websites	https://elt.oup.com/student/headway/preint4/grammar/unit01/hwy_preint_unit01_2?cc=global&selLanguage=en	

Grading Scheme				
مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors

	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

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توزيع العبء الدراسي للطالب

			اسم المقرر
Path-121	رمز المقرر	Principle of pathological analysis	اسم المقرر
7	عدد الوحدات الاوربية (ECTS)	Core	نوع المقرر
2023/5/30	تاريخ الاعداد	175	SWL(hr/sem)

العبء الكلي للنشاط	عدد الاسابيع	ساعة لكل اسبوع	الساعات غير الجدولة USSWL	الساعات المجدولة SSWL	نوع النشاط
30	15	2		محاضرات في القاعة الدراسية	محاضرات
30	15	2		دوام المختبر	المختبر
15	15	1		المناقشات	المناقشات
0	0	0		مشروع عملي	مشروع عملي*
9	9	1	التهيئة للمشروع		
45	15	٣	تحضير الدروس اليومي		تحضير الدروس
0	0	0		القاء العرض التقديمي	العروض التقديمية*
10	2	5	التهيئة للعرض التقديمي		
15	3	5	التهيئة للامتحانات اليومية		الامتحانات اليومية
0	0	0		الامتحان	امتحان نصف الفصل*
6	1	6	التهيئة للامتحان		
3	1	3		الامتحان	امتحان نهاية الفصل
12	1	12	التهيئة للامتحان		
١٧٥		العبء الكلي للمادة خلال الفصل			

*لاتوجد ساعات مجدولة لهذه النشاطات كون تم استيفاؤها ضمن الصفوف الدراسية

توقيع :

اسم مدرس المادة:

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**Principles pathological analysis**	**Module Delivery**	
Module Type	Core	☒ Theory	
Module Code	**Path-121**	☐ Lecture	
ECTS Credits	**7**	☒ Lab	
SWL (hr/sem)	**175**	☐ Tutorial	
		☐ Practical	
		☒ Seminar	

Module Level	2	**Semester of Delivery**	2
Administering Department	pathological analyses	**College**	Applied Science
Module Leader	م.د. لهيب رجب حماد	**e-mail**	E-mail: laheebrh@uofallujah.edu.iq
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name/	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

Prerequisite module		**Semester**	2
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	1. To identify between tests according the samples type. 2. To understand of introduction for pathological analysis

	3.To understand of complete blood count.
	3. To understand of blood groups and Rh system
	4.To understand of kidney function tests.
	4. To understand of liver function tests.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	.1. Able to understand common aspects between different types of tests. 2.able to numerate the type of diabetes. 1. Able to describe the interactions between antibody and antigens. 2. Able to define medical conditions to relation with tests. 3. Able to identify of causes of disease with tests. 4. Able to understand of complications of diabetes. 5. Able to understand of functions of liver and kidney
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. 1-Liver function test ALB, GOT, GPT, ALP, GGT,BLOOD UREA, creatinine, uric acid, electrolyte, lipid profile-reactive protein, cardiac function, pancreatic function, diabetes profile, thyroid function, reproductive hormones (30 hours) 2- practical laboratory test are Liver function test ALB, GOT,GPT,ALP,GGT,BLOOD UREA, creatinine, uric acid, electrolyte, lipid profile-reactive protein, cardiac function, pancreatic function, diabetes profile, thyroid function, reproductive hormones (30 hours) 3-discusion (15 hours).

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	The primary approach that will be used to present this module is to promote student's engagement in the activities while also enhancing and broadening their critical thinking abilities. This will be accomplished through lectures, interactive tutorials, and taking into account the kinds of easy experiments that include certain sampling tasks that the students will find engaging.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	96	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 10, 11 and 12
Summative assessment	Midterm Exam	2 hr	10% (10)	8	LO # 1-7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	History of microorganism discovery
Week 2	Types of Pathogenic microorganism
Week 3	Normal flora
Week 4	The shape of bacteria
Week 5	History of microorganism discovery
Week 6	Reproduction in Bacteria Structure of bacteria& Requirements for bacterial growth
Week 7	Midterm exam
Week 8	Bacterial disease
Week 9	Fungi
Week 10	Modes of fungal growth
Week 11	Viruses
Week 12	Steps of virus replication
Week 13	Protozoa
Week 14	helminths
Week 15	Antibiotics and vaccines
Week 16	Preparatory week before the final Exam

<table>
<tr><td colspan="2">Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر</td></tr>
<tr><td></td><td></td></tr>
<tr><td>Week 1</td><td>Lab: ALP, GOT GPT</td></tr>
<tr><td>Week 2</td><td>Lab:ALP</td></tr>
<tr><td>Week 3</td><td>Lab 3: GGT</td></tr>
<tr><td>Week 4</td><td>Lab 4: ESR</td></tr>
<tr><td>Week 5</td><td>Lab 5:blood urea</td></tr>
<tr><td>Week 6</td><td>Lab 6: serum creatinine</td></tr>
<tr><td>Week 7</td><td>Lab 7: Filters</td></tr>
<tr><td>Week 8</td><td>Uric acid</td></tr>
<tr><td>Week 9</td><td>Electrolyte profile</td></tr>
<tr><td>Week 10</td><td>Lipid profile</td></tr>
<tr><td>Week 11</td><td>Prothrompin time</td></tr>
<tr><td>Week 12</td><td>Cardiac function test</td></tr>
<tr><td>Week 13</td><td>Diabetes profile</td></tr>
<tr><td>Week 14</td><td>Thyroid function test</td></tr>
<tr><td>Week 15</td><td>Reproductive hormones</td></tr>
</table>

<table>
<tr><td colspan="3">Learning and Teaching Resources
مصادر التعلم والتدريس</td></tr>
<tr><td></td><td>Mosby's Manual of Diagnostic and Laboratory Tests (Pagana, Mosby's Manual of Diagnostic and Laboratory Tests) 5th Edition by Kathleen Deska Pagana PhD RN (Author), Timothy J. Pagana MD FACS (Author</td><td>Available in the Library?</td></tr>
<tr><td>Required Texts</td><td>Laboratory and Diagnostic Tests A MANUAL OF NINTH EDITION Frances Talaska Fischbach, RN, BSN, MSN

Jawetz, Melnick, & Adelberg's Medical Microbiology

Lippincott® Illustrated Reviews: Microbiology (Lippincott Illustrated Reviews Series) 4th Edition</td><td>yes</td></tr>
<tr><td>Recommended Texts</td><td>DC Electrical Circuit Analysis: A Practical Approach Copyright Year: 2020, dissidents</td><td>No</td></tr>
<tr><td>Websites</td><td>https://medlineplus.gov/laboratorytests.html</td><td></td></tr>
</table>

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group **(50 - 100)**	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group **(0 – 49)**	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

جامعة الفلوجه
كلية العلوم التطبيقية
قسم التحليلات المرضية

توزيع العبء الدراسي للطالب

اسم المقرر	Human cytology	رمز المقرر	Path-112
نوع المقرر	Core	عدد الوحدات الاوربية (ECTS)	7
SWL(hr/sem)	175	تاريخ الاعداد	2023/5/30

نوع النشاط	الساعات المجدولة SSWL	الساعات غير الجدولة USSWL	ساعة لكل اسبوع	عدد الاسابيع	العبء الكلي للنشاط
محاضرات	محاضرات في القاعة الدراسية		2	15	30
المختبر	دوام المختبر		2	15	30
المناقشات	المناقشات		1	15	15

10	10	1		مشروع عملي	مشروع عملي*
10	10	1	التهيئة للمشروع		
28	14	2	تحضير الدروس اليومي		تحضير الدروس
14	7	2		القاء العرض التقديمي	العروض التقديمية*
9	3	3	التهيئة للعرض التقديمي		
9	3	3	التهيئة للامتحانات اليومية		الامتحانات اليومية
0	0	0		الامتحان	امتحان نصف الفصل*
6	1	6	التهيئة للامتحان		
4	1	4		الامتحان	امتحان نهاية الفصل
12	1	12	التهيئة للامتحان		
175	العبء الكلي للمادة خلال الفصل				
لاتوجد ساعات مجدولة لهذه النشاطات كون تم استيفاؤها ضمن الصفوف الدراسية*					

توقيع :

اسم مدرس المادة:

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**Human cytology**	**Module Delivery**	
Module Type	**Core**	☒ Theory	
Module Code	**Path-112**	☐ Lecture	
ECTS Credits	**7**	☒ Lab	
SWL (hr/sem)	**175**	☐ Tutorial	
		☐ Practical	
		☒ Seminar	

Module Level	1	**Semester of Delivery**	1
Administering Department	pathological analyses	**College**	Applied Science
Module Leader	Name: Dr. Roua Jamal	**e-mail**	E-mail: roua.jamal@uofallujah.edu.iq
Module Leader's Acad. Title	Assist. Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Anwar Khalil Ismael	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

Prerequisite module		**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	- To develop learning skills and understanding of cell structure. - To understand unite of life, structure of cells, cellular components. - This course deals with the basic concept of cells and its functions. - To understand the relations between the different cells types.

	- To understand the biology of cancer - Explaining the cellular signals.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	- Recognize types of cells. - List the various terms associated cell structures. - Discuss cytoskeleton. - Summarize all the cellular components and its functions. - Discuss the reaction between different cells in different tissues. - Describe the endoplasmic reticulum. - Define Golgi complex and explain its functions. - Identify the nuclear envelope function. - Discuss the important of nuclear components to keep the generations characteristics. - Discuss the function of Lysosome. - Explain the types of cellular vesicles. - Identify relations between different cells
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A – cell Theory Define cell, comparison between animal and plant cells, cell membrane, cytoskeleton, components of cell, endoplasmic reticulum, rough e. r. and smooth e. r. centrioles, lysosome, Golgi complex, [15 hrs] Part B --Relations between cells: nucleus, chromosomes types, nuclear envelope, nucleolus, cells types, cells signal, types of cell secretions. [15 hrs] Cell cycle [5 hr] Biology of Cancer, types of cancer, treatment mechanism of action [10 hrs]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive lectures and by considering type of simple tests involving some sampling activities that are interesting to the students.

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	96	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	175		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	15% (15)	2,6,9	LO #1, 2, 4, 5, 7,8 and 9
	Assignments	2	10% (10)	1,11	LO # 3,6 and 10
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	5% (5)	14	LO # 11,12,13,14 and 15
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Introduction for Cytology and cell theory
Week 2	Basics of cell types and comparison between plant cell and animal cell and cell cycle
Week 3	Endoplasmic reticulum types
Week 4	Smooth e. r. and rough e. r.
Week 5	Golgi complex
Week 6	Lysosome &Vesicles types
Week 7	Mid term
Week 8	Cytoskeleton
Week 9	Centrioles
Week 10	Nucleus and Nucleolus
Week 11	Chromosomes types
Week 12	Nuclear envelope
Week 13	Relation between cells
Week 14	Cell signaling
Week 15	Final exam.

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction for practical cytology
Week 2	Lab 2: cells types
Week 3	Lab 3: cell components
Week 4	Lab 4: staining of WBC's
Week 5	Lab 5: Cancer cell morphology
Week 6	Lab 6: comparison between cancer cell and normal cell
Week 7	Lab 7: analysis of Cancer cell
Week 8	Lab 8: Cytoskeleton
Week 9	Lab 9: Centrioles
Week 10	Lab 10: Nucleus and Nucleolus
Week 11	Lab 11: Chromosomes types
Week 12	Lab 12: Nuclear envelope
Week 13	Lab 13: Relation between cells
Week 14	Lab 14: Cell signaling

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Mader: Human Biology Human cytology	Yes
Recommended Texts	Campbell Biology Textbook, 11th Edition	No
Websites		

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors

	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX – Fail**	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information	
معلومات المادة الدراسية	

		Module Delivery	
Module Title	**Occupational laboratory safety**	**Module Delivery**	
Module Type	**Basic**	☒ Theory	
Module Code	**Path-114**	☒ Lecture	
ECTS Credits	**3**	☐ Lab	
		☐ Tutorial	
SWL (hr/sem)	**75**	☒ Practical	
		☐ Seminar	

Module Level	1	Semester of Delivery	1
Administering Department	pathological analyses	**College**	**Applied Science**
Module Leader	Name: أ.م.د. رؤى جمال عبد الخالق	**e-mail**	E-mail: roua.jamal@uofallujah.edu.iq
Module Leader's Acad. Title	Assistant Prof.	**Module Leader's Qualification**	
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules		
العلاقة مع المواد الدراسية الأخرى		
Prerequisite module	None	**Semester**	
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents	
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	5. Providing the learner with the skills of laboratory safety and security 6. Provide the student with the mechanisms of using personal protective equipment

	7. Explanation of the concepts of risk and danger
	8. Learn about the types of biological safety cabinets
	9. Provide the learner with the mechanism of dealing with germs
	10. Provide the learner with how to manage chemical risks
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	6. The learner has the skills of laboratory safety and security
	7. The learner is highly familiar with the use of personal protective equipment
	8. The student will be able to distinguish between the concepts of risk and risk
	9. The learner will have the ability to deal with germs
	10. The learner will have the ability to deal with chemicals
	11. The learner will have the ability to manage risks, whether they are biological or chemical
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Definition of the concept of safety and security, expressions and agreements related to this (four hours) The concept of risk and risk and distinguishing between them and taking examples and applications thereof (four hours) Germs, their types, challenges, how to control them, how to deal with them, and what methods and means are available (six hours) Chemicals, their types, classification, mechanism for dealing with and managing them, and an indication of their risks (six hours) The learner will have the ability to manage risks, whether biological or chemical, and manage spread and spills (six hours). Field and practical practices on waste management, creating hypothetical problems and how to deal with them inside and outside laboratories. As well as civil defense procedures and evacuation and assembly procedures (fifteen hours)

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم
Strategies	Establishing safety and security problems and then working to find solutions to them Conducting dialogue workshops on security and safety concepts Conducting surveys to identify personal protective equipment

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	6
Unstructured SWL (h/sem)	27	**Unstructured SWL (h/w)**	3

الحمل الدراسي غير المنتظم للطالب خلال الفصل		الحمل الدراسي غير المنتظم للطالب أسبوعيا	
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

Module Evaluation					
تقييم المادة الدراسية					
		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	4, 9	LO #1, 2, 6 and 7
	Assignments	2	10% (10)	2, 11	LO # 3, 4, 9 and 10
Summative assessment	**Midterm Exam**	2 hr	30% (30)	6, 10	LO # 1-6, 7-11
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction - Definition of the concept of safety and security and its principles
Week 2	International agreements
Week 3	The concept of risk and danger
Week 4	Chemicals and their classifications
Week 5	Chemical risk management
Week 6	Exam 1
Week 7	Chemical spill management
Week 8	Laboratory waste management
Week 9	Germs and their classification
Week 10	Exam 2
Week 11	Biological protection methods and types of biosafety capitate
Week 12	Biological risk management
Week 13	Global systems in biological risk management
Week 14	Create problems inside the laboratory and the mechanism to solve them
Week 15	Create problems inside the laboratory and the mechanism to solve them
Week 16	**Preparatory week before the final Exam**

<table>
<tr><th colspan="3">Learning and Teaching Resources</th></tr>
<tr><th colspan="3">مصادر التعلم والتدريس</th></tr>
<tr><td></td><td>Text</td><td>Available in the Library?</td></tr>
<tr><td>Required Texts</td><td>Laboratory Safety and Security Curriculum / CSP / US State Agency   2016</td><td>Yes</td></tr>
<tr><td>Recommended Texts</td><td>Chemical Safety and Security guideline
Dr. Hamsa Munam, Dr. Sarah Salman & Dr. Nawar Jamal /2021</td><td>No</td></tr>
<tr><td>Websites</td><td></td><td></td></tr>
</table>

Group	Grade	التقدير	Marks (%)	Definition
Success Group **(50 - 100)**	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group **(0 – 49)**	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Grading Scheme

مخطط الدرجات

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

MODULE DESCRIPTION
وصف المادة الدراسية

توزيع العبء الدراسي للطالب

اسم المقرر	Human anatomy	رمز المقرر	Path-122
نوع المقرر	Core	عدد الوحدات الاوربية (ECTS)	7
SWL(hr/sem)	175	تاريخ الاعداد	2023/6/1

العبء الكلي للنشاط	عدد الاسابيع	ساعة لكل اسبوع	الساعات غير الجدولة USSWL	الساعات المجدولة SSWL	نوع النشاط
30	15	2		محاضرات في القاعة الدراسية	محاضرات
30	15	2		دوام المختبر	المختبر
15	15	1		المناقشات	المناقشات
0	0	0		مشروع عملي	مشروع عملي*
10	10	1	التهيئة للمشروع		
60	15	4	تحضير الدروس اليومي		تحضير الدروس
0	0	0		القاء العرض التقديمي	العروض التقديمية*
4	2	2	التهيئة للعرض التقديمي		
8	4	2	التهيئة للامتحانات اليومية		الامتحانات اليومية
0	0	0		الامتحان	امتحان نصف الفصل*
5	1	5	التهيئة للامتحان		
4	1	4		الامتحان	امتحان نهاية الفصل
9	1	9	التهيئة للامتحان		
175	العبء الكلي للمادة خلال الفصل				

*لاتوجد ساعات مجدولة لهذه النشاطات كون تم استيفاؤها ضمن الصفوف الدراسية

توقيع :

اسم مدرس المادة:

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Human anatomy**	Module Delivery
Module Type	Core	☒ Theory
Module Code	**Path-122**	☐ Lecture
ECTS Credits	7	☒ Lab
SWL (hr/sem)	175	☐ Tutorial
		☐ Practical
		☒ Seminar

Module Level	2	Semester of Delivery	2
Administering Department	pathological analyses	College	Applied Science
Module Leader	Ali Khudhair Obaies	e-mail	Ali.kh21@uosamarra.edu.iq
Module Leader's Acad. Title	Assistant Prof.	Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)	e-mail	E-mail
Peer Reviewer Name	Name	e-mail	E-mail
Scientific Committee Approval Date	01/06/2023	Version Number	1.0

Relation with other Modules		
العلاقة مع المواد الدراسية الأخرى		
Prerequisite module	None	Semester	
Co-requisites module	None	Semester	

Module Aims, Learning Outcomes and Indicative Contents		
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية		
Module Aims أهداف المادة الدراسية	- To develop skills and understanding of human anatomy and, structures of the human body. - To understand fundamental principles anatomy systems of human body. - This course deals with the basic concept of anatomy systems of human	

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
	body. - This is the basic subject for complexity of the human body.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	-List the various terms human anatomy. -Summarize what is meant by a human anatomy. -Discuss the reaction and involvement of human anatomy. - Describe human anatomy. -Define human anatomy. -Identify the basic of human anatomy. -Discuss the various systems of human anatomy. -Identify the human anatomy.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A - Human Anatomy Define Anatomy, Kinds of anatomical studies, Regions of the human body, The anatomical position, Planes of the body Directions. [15 hrs] Human Anatomy I – Introduction to Human Skeletal System, Nervous System, Cardiovascular System Components of Human Skeleton, Bones, Cartilages, Divisions of Human Skeleton. [15 hrs] Human Anatomy II - Respiratory System, Organs of human respiratory system . [10 hrs] . Muscular System, Types of muscles., Digestive System, Integumentary System [15 hrs] Revision problem classes [6 hrs] Part B - Human function and Anatomy : Fundamentals Human Reproductive System, Lymphatic System. [15 hrs] Components– Components Endocrine System, Functions of urinary system. [7 hrs] Introduction to Digestive System, Parts of digestive system, Functions of digestive system. [15 hrs]

<table>
<tr><td colspan="4" align="center">**Student Workload (SWL)**

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا</td></tr>
<tr>
<td>**Structured SWL (h/sem)**

الحمل الدراسي المنتظم للطالب خلال الفصل</td>
<td>79</td>
<td>**Structured SWL (h/w)**

الحمل الدراسي المنتظم للطالب أسبوعيا</td>
<td>6</td>
</tr>
<tr>
<td>**Unstructured SWL (h/sem)**

الحمل الدراسي غير المنتظم للطالب خلال الفصل</td>
<td>96</td>
<td>**Unstructured SWL (h/w)**

الحمل الدراسي غير المنتظم للطالب أسبوعيا</td>
<td>7</td>
</tr>
<tr>
<td>**Total SWL (h/sem)**

الحمل الدراسي الكلي للطالب خلال الفصل</td>
<td colspan="3">175</td>
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<table>
<tr><td colspan="6" align="center">**Module Evaluation**

تقييم المادة الدراسية</td></tr>
<tr>
<td colspan="2"></td>
<td>**Time/Number**</td>
<td>**Weight (Marks)**</td>
<td>**Week Due**</td>
<td>**Relevant Learning Outcome**</td>
</tr>
<tr>
<td rowspan="4">**Formative assessment**</td>
<td>**Quizzes**</td>
<td>2</td>
<td>10% (10)</td>
<td>5, 10</td>
<td>LO #1, 2, 10 and 11</td>
</tr>
<tr>
<td>**Assignments**</td>
<td>2</td>
<td>10% (10)</td>
<td>2, 12</td>
<td>LO # 3, 4, 6 and 7</td>
</tr>
<tr>
<td>**Projects / Lab.**</td>
<td>1</td>
<td>10% (10)</td>
<td>Continuous</td>
<td>All</td>
</tr>
<tr>
<td>**Report**</td>
<td>1</td>
<td>10% (10)</td>
<td>13</td>
<td>LO # 10, 11 and 12</td>
</tr>
<tr>
<td rowspan="2">**Summative assessment**</td>
<td>**Midterm Exam**</td>
<td>2 hr</td>
<td>10% (10)</td>
<td>7</td>
<td>LO # 1-6</td>
</tr>
<tr>
<td>**Final Exam**</td>
<td>3hr</td>
<td>50% (50)</td>
<td>16</td>
<td>All</td>
</tr>
<tr>
<td colspan="2">**Total assessment**</td>
<td colspan="4">100% (100 Marks)</td>
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</table>

<table>
<tr><td colspan="2" align="center">**Delivery Plan (Weekly Syllabus)**

المنهاج الاسبوعي النظري</td></tr>
<tr>
<td></td>
<td>**Material Covered**</td>
</tr>
<tr><td>**Week 1**</td><td>Introduction - Human Anatomy</td></tr>
<tr><td>**Week 2**</td><td>Kinds of anatomical studies, Regions of the human body</td></tr>
<tr><td>**Week 3**</td><td>Human Skeletal System, Anatomy and function .</td></tr>
<tr><td>**Week 4**</td><td>Review of Human Anatomy the anatomical position, Planes of the body</td></tr>
<tr><td>**Week 5**</td><td>Nervous System, Anatomy and function .</td></tr>
<tr><td>**Week 6**</td><td>Review of Components of Human Skeleton, Bones , Cartilages, Divisions of Human Skeleton</td></tr>
<tr><td>**Week 7**</td><td>Mid-term Exam .</td></tr>
<tr><td>**Week 8**</td><td>Cardiovascular System , Anatomy and function .</td></tr>
<tr><td>**Week 9**</td><td>Respiratory System , Anatomy and function .</td></tr>
<tr><td>**Week 10**</td><td>Muscular System, Anatomy and function .</td></tr>
</table>

Week 11	Introduction to Digestive System, Anatomy and function .
Week 12	Urinary System , Anatomy and function .
Week 13	The Integumentary System , Anatomy and function of Integumentary
Week 14	Lymphatic System , Anatomy and function of lymphatic System
Week 15	Endocrine System , Anatomy and function of endocrine System
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to Human Anatomy
Week 2	Lab 2: Regions of the human body, The anatomical position, Planes of the body , Directions
Week 3	Lab 3: Components of Human Skeleton, Bones .
Week 4	Lab 4: Components of Human Nervous System.
Week 5	Lab 5: Components of Human Cardiovascular System.
Week 6	Lab 6: Components of Human Respiratory System.
Week 7	Lab 7: Components of Human Muscular System.
Week 8	Lab 8: Cardiovascular System .
Week 9	Lab 9: Respiratory System .
Week 10	Lab 10: Muscular System.
Week 11	Lab 11: Digestive System.
Week 12	Lab 12: Urinary System .
Week 13	Lab 13The Integumentary System .
Week 14	Lab 14 Lymphatic System.

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	McMinn, R. M. H., Hutchings, R. T., Pegington, J., & Abrahams, P. (1988). A colour atlas of human anatomy. Year Book Medical Publishers.	Yes
Recommended Texts	Rowett, H. G. (2000). Basic anatomy and physiology. John Murray Ltd..	Yes
Websites	https://brooksidepress.org/anatomy/	

| Grading Scheme | | | | |
| مخطط الدرجات | | | | |
Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

University of
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College of Applied
Science
Department of pathological
analyses

MODULE DESCRIPTION
وصف المادة الدراسية

Module Information
معلومات المادة الدراسية

Module Title	**Medical Physics**	**Module Delivery**	
Module Type	**Core**	☒ **Theory** ☒ **Lecture** ☒ **Lab** ☐ **Tutorial** ☐ **Practical** ☐ **Seminar**	
Module Code	Path-123		
ECTS Credits	**5**		
SWL (hr/sem)	**125**		
Module Level	1	**Semester of Delivery**	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	Name: د. اسعد ضاحي	**e-mail**	E-mail: **asaad.thahe@yahoo.com**
Module Leader's Acad. Title	Doctor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	14/06/2023	**Version Number**	1.0

Relation with other Modules
العلاقة مع المواد الدراسية الأخرى

Prerequisite module	yes	**Semester**	1
Co-requisites module	yes	**Semester**	2

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	At the end of the academic year, the students are expected to:- To develop problem solving skills and understanding of physics of physiology of human body . . To understand the main concept of physics as applied to human body organ. . To deal with the basic physical concept of body systems. . This course provides an insight through certain medical techniques. . To understand the principles of the important physical phenomenon that support health care of human. . To employ the physics laws and principles in solving some clinical problem . Identify the physical phenomena and relate it with the medical phenomena that can be observed in the human system due to normal life activities.

Module Learning Outcomes مخرجات التعلم للمادة الدراسية	Recognize how energy is converted in work and then generate power. . Understand how work to pump the blood and gases exchange . . Recognize the most important properties of liquid and their application in medicine. . Understand the how electric impulses generated inside in human body (Nerve cell). . Describe the optical system of human body and understand the optical defects. . Recognize the laser and its application in medicine. . Identify the properties of light in medicine and its application medicine. . Identify the application of heat and cold in medicine.

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
own goals	1- To be able to have good understanding of the skeletal system, temperature, pressure, and viscosity 2- To be able to know the methods of heat transfer, the laws of and electricity 3- To be able to have a full knowledge on how natural phenomena occur in our such as the blood flow, human body temperature and pressures.
Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Part A – Introduction, Conservation of energy in the body, Energy change in the body -Unit of energy, Metabolic rate, Exmple, -Basal metabolic rate(BMR), -Factor affecting BMR, Work and power- Physics of cardiovascular system – Introduction, -Major component of cardiovascular system, A-Heart, B-Blood,O_2 and CO_2 exchange in capillary. Work done by heart, -Problems, -Velocity of Blood flow, Turbulent and Laminar flow [16] Properties of liquid- Introduction, Pressure, Manometer, Electro manometer, Pascal law -The flow of ideal fluid: a-ideal flow+ b-real flow, Characteristics of flow of ideal fluid (Bernoulli equation), -Surface tension (definition) -Introduction and principles: -Example +clarification (equation), and Problem. Electricity within the body [12] Physics of eye and vision: Introduction -Feature of optical system, -Focusing element of eye - Cornea+ Lense, Range of accommodation of normal eye, Other elements of eye -Wavelength response of the eye, Optical defect of eye + Problems Laser in medicine [12] Light in medicine, Phase contrast microscope, Fluorescent microscope, Histroradiography technique, Electron microscope , TEM + SEM, Heat in medicine Cold in medicine [12]

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL)
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		**200**	

Module Evaluation
تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)
المنهاج الاسبوعي النظري

Week	Material Covered
1 + 2	Physics of the skeleton: Bones: (Function of bones, Composition of bone remodeling, Stress – strain curve: (compressive and tensile stress, young modulus). Bone joints: (Synovial fluid, coefficient of a joint).
3 + 4	Force on and in body: - Static forces (type of levers with medical examples). - Dynamic forces (Centrifuge), Electrical, Frictional, Force of muscle and joint.
5 + 6	Heat and cold in medicine: - Temperature scales, thermograph, cold in medicine and cryosurgery. - Heat transfer by conduction - Convection and radiation.
7 + 8	Pressure: - Definition, absolute pressure, gauges pressure, negative pressure, unit of pressure, Measurement of the pressure in the body
9 + 10	Sound in Medicine:

	- Properties of sound - Stethoscope (including heart sound). Mechanism of hearing
11 + 12	Light in medicine: Properties of light, measurement of light and its units. Application of visible light in medicine. Application of ultraviolet and infrared light in medicine.
13	Laser in medicine: -What is laser? Application of laser in dentistry.
14	Nanotechnology and Application in medicine. Introduction of nanotechnology, Characterization of Nanomaterials.
15	Physics of diagnostic X-ray: - Properties of X-ray, production of x-ray, contrast media -ray image. Radiation to patient from x-ray.
16	**FINAL EXAM**

Delivery Plan (Weekly Lab. Syllabus)
المنهاج الاسبوعي للمختبر

Week	Material Covered
1	How to write report in practical physics
2	Introduction to graphs and the system units
3	How to plot Graphs with graphs paper
4	Ohm's law
5	Simple Pendulum
6	Hook's law
7	Viscosity of a liquid
8	Examination
9	Boyle's law
10	Viscosity of the sound
11	Inverse Square law
12	Laser application for measurement of wave length
13	The focal length of a converging lens
14	Cathode ray oscilloscope
15	Final Exam

Learning and Teaching Resources
مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1. W. R. Hendee and E. R. Ritenour "Medical Imaging Physics", 4th Edition, Wiley-Liss, Inc., (2002) 2. RF Farr and PJ Allisy-Roberts "Physics for Medical Imaging", Saunders, 4th edition (2001). 3. S.C. Bushong "Radiologic Science For Technologists", Mosby, Fifth edition (1988). 4. H. Cember "Introduction to Health Physics", Pergamon Press, Third edition (1987).	No
Recommended Texts	Essential Physics for Basic Medical Sciences Introduction to Medical Physics, Stephen Keeviln	No
Websites		

Grading Scheme مخطط الدرجات				
Group	**Grade**	التقدير	**Marks %**	**Definition**
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information		
معلومات المادة الدراسية		

Module Title	**Biostatistics**	**Module Delivery**
Module Type	**Basic**	☒ Theory
Module Code	**Path-124**	☒ Lecture
ECTS Credits	**4**	☒ Lab
		☐ Tutorial
SWL (hr/sem)	**100**	☐ Practical
		☐ Seminar

Module Level	1	**Semester of Delivery**	1
Administering Department	Type Dept. Code	**College**	Type College Code
Module Leader	Name: أ. د. راضي عبد ذياب	**e-mail**	E-mail: dr.radhidheyab68@uofallujah.edu.iq
Module Leader's Acad. Title	Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	yes	**Semester**	1
Co-requisites module	yes	**Semester**	2

	Module Aims, Learning Outcomes and Indicative Contents
	أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

| **Module Objectives**

أهداف المادة الدراسية | **Biostatistics** provides foundational skills and knowledge in biostatistics and students will gain a deeper understanding of its relevance and application to public health, health policy, clinical medicine, and health economics. All parts of this training are free, including registration, learning, testing, and a certificate of completion. The course in Biostatistics is intended for students of public health, clinical medicine, biology, and other health sciences.

Health professionals are confronted with statistics on a daily basis. Examples include interpreting clinical values measured on a patient, understanding clinical guidelines or departmental reports, and importantly, reading scientific papers in order to assess the evidence for treatment. Having an understanding of statistics will empower health professionals and provide them with key tools in both understanding and applying evidence in their practice.

To teach students how to provide guidance on appropriate methods and

techniques for collecting data in a scientific and accurate manner.

. To determine sample sizes.43. For the design of surveys or experiments

. To understand the guarantee, quality and accuracy of data

. How to make conclusions and draw conclusions about a population

based on sample data.

. To conduct tests on hypotheses and estimate parameters includes

testing hypotheses, estimating parameters

. To teach students how to predict and model statistical models

. To develop statistical models describing the relationships between

variables.

- To identify the risks associated with certain exposures or interventions

.To provide evidence-based information and analysis to support

healthcare and public health decision-making |
| **Module Learning Outcomes**

مخرجات التعلم للمادة الدراسية | Important: Write at least 6 Learning Outcomes, better to be equal to the number of study weeks.

• Understand the basic types of data, the main ways in which data are used, and important considerations when using data in analysis.

• Identify the design of a study and explain how this impacts interpretation.

• Apply knowledge and skills in working with different data types in a chosen public health setting.

Relate the probability of an event to the likelihood of this event occurring. Understand how to interpret and generate proportions from data. Explain how relative frequency can be used to estimate the probability of an event. Understand the concepts of probability, conditional probability, and independence.

1. Understanding of Basic Statistical Concepts: Gain a solid understanding of |

	fundamental statistical concepts, such as probability, hypothesis testing, confidence intervals, sampling, and measures of central tendency and variability. 2. Learn how to design studies and experiments, including determining appropriate sample sizes, randomization, and selection of study designs for different research questions. 3. Acquire knowledge of various statistical techniques and methods used in biostatistics, including descriptive statistics, inferential statistics, regression analysis, survival analysis, categorical data analysis, and non-parametric methods. 4. Develop the ability to interpret statistical results correctly and effectively communicate findings to a non-technical audience. Understand the limitations and assumptions of statistical methods and be able to critically evaluate the validity of statistical analyses. 5. Apply statistical concepts and methods to real-world scenarios in the field of biostatistics. Gain an understanding of the role of biostatistics in medical research, epidemiology, public health, clinical trials, and healthcare decisionmaking. 6. Develop critical thinking skills to identify appropriate statistical techniques for • different research questions and datasets. Learn how to approach data analysis • problems systematically and solve them using statistical methods.
Indicative Contents المحتويات الإرشادية	Students who successfully complete this course will be able to (1) To discuss and critic reports and articles applying biostatistics to epidemiology (2) To conduct preliminary/simple statistical analysis and to plan more sophisticated future statistical analyses (3) To work with scientific experts including biostatisticians, epidemiologists and public health professionals The learning objectives are: ☐ Extract the most useful/important information from scientific articles ☐ Interpret graphical summaries and statistical tables ☐ Criticize the statistics of simple epidemiological studies ☐ Describe the study population using the appropriate indicators ☐ Formulate statistical hypothesis according to the objective aimed by the study ☐ Apply the statistical test using the R or STATA software and to interpret the results ☐ Measure the strength of the association between two quantitative or qualitative variables and interpret it ☐ Summarize statistical results and to write the material, methods and result sections of a report/article ☐ Follow the step by step procedure to obtain a informative linear model and interpret it Indicative content includes the following. Part (1) Introduction Introduction for Biostatistics (what is statistics, Major concepts of statistics, Level of measurement) [4h]Part (2) Describing statistics Describing the statistical Data (frequency Distribution, Graphic presentation of frequency distribution), Measures of Central tendency (mean, median, mode, quartiles, deciles and percentiles), Measures of Dispersion

	(Range, Variance, Standard deviation) [12h]
	Part (3) inferences statistics
	Testing statistical Interns (statistical test, Z test, T test), Comparing two population means, Hypothesis Test for two population means using paired samples, Power test for Difference Between two independent Means, Inference concerning a population variance, Test for homogeneity of variances, Analysis of variance method, Two-way analysis of variance, The chi-square Goodness of Fit, Chi-square independence test, Correlation and regression [40h]

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.

Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	109	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	91	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	**200**		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	**Quizzes**	2	10% (10)	5 and 10	LO #1, #2 and #10, #11
	Assignments	2	10% (10)	2 and 12	LO #3, #4 and #6, #7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO #5, #8 and #10
Summative assessment	**Midterm Exam**	2hr	10% (10)	7	LO #1 - #7
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Data Analysis and Study Design
Week 2	Probability and Sampling Distributions
Week 3	Probability, Frequency, and the Concepts of Probability
Week 4	Variables, Sampling, and Distribution
Week 5	Confidence Intervals Competencies covered in this module
Week 6	Point and Confidence Interval Estimation
Week 7	Effect of Sample Size on Confidence Interval
Week 8	Effect of Sample Size on Confidence Interval
Week 9	Principles of Hypothesis Testing
Week 10	Applications of Hypothesis Testing
Week 11	Power and Sample Size
Week 12	Nonparametric Tests
Week 13	Regression Analysis Competencies covered in this module:
Week 14	Regression Analysis Competencies covered in this module:
Week 15	Logistic Regression Analysis, Overview of Correlation and Regression Analysis
Week 16	**FINAL EXAM**

<table>
<tr><td colspan="3" align="center">**Learning and Teaching Resources**

مصادر التعلم والتدريس</td></tr>
<tr><td></td><td align="center">**Text**</td><td>**Available in the Library?**</td></tr>
<tr><td>**Required Texts**</td><td>Biostatistics for oral health care, By Jay S. kim and

Ronald J. daliey, 2008, Blackwell Munksgaard, a

Blackwell Publishing Company, USA</td><td align="center">Yes</td></tr>
<tr><td>**Recommended Texts**</td><td>الإحصاء بلا معاناة ، محمد شامل بهاء الدين فهمي، 2005المملكة العربية السعودي</td><td align="center">No</td></tr>
<tr><td>**Websites**</td><td>1- https://www.noor-book.com

2- www.efaidnbmnnnibpcajpcglclefindmkaj/https://onlinestatbook.com/Online_Stati

stics_Education.pdf</td><td></td></tr>
</table>

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks %	Definition
Success Group **(50 - 100)**	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group **(0 – 49)**	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION FORM
نموذج وصف المادة الدراسية

Module Information	
معلومات المادة الدراسية	

		Module Delivery	
Module Title	**حقوق الانسان والديمقراطية**	**Module Delivery**	
Module Type	**Support**	☒ Theory	
Module Code	**Uni-103**	☐ Lecture	
ECTS Credits	**2**	☒ Lab	
SWL (hr/sem)	**40**	☐ Tutorial	
		☐ Practical	
		☒ Seminar	

Module Level	1	Semester of Delivery	2
Administering Department	pathological analyses	**College**	**Applied Science**
Module Leader	Majid Ismail Abdullah	**e-mail**	
Module Leader's Acad. Title	Assistant Professor	**Module Leader's Qualification**	Ph.D.
Module Tutor	Name (if available)	**e-mail**	E-mail
Peer Reviewer Name	Name/	**e-mail**	E-mail
Scientific Committee Approval Date	01/06/2023	**Version Number**	1.0

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module		**Semester**	2
Co-requisites module	None	**Semester**	

Module Aims, Learning Outcomes and Indicative Contents
أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية		تثقيف الطلبة بحقوقهم الشرعية والقانونية. ـ. تثقيف الطلبة بحرياتهم وحقوقهم الدستورية ـ. تعريف الطلبة بانواع الحقوق ـ. تعريف الطلبة بالتشريعات الدولية لحماية حقوق الانسان
Module Learning Outcomes مخرجات التعلم للمادة الدراسية		تعلم الطلبة بحقوقهم الشرعية والقانونية. ـ تعلم الطلبة بحقوقهم الدستورية ـ. تعلم الطلبة انواع الحقوق ـ. تعرف الطلبة على التشريعات الدولية لحماية حقوق الانسان
Indicative Contents المحتويات الإرشادية		معني الحق وتطور مفهومه، الاساس الشرعي للحقوق الانسان...الحقوق في الديانة اليهودية، حقوق الانسان في الديانة المسيحية، حقوق الانسان في الديانة الاسلامية (9ساعة) الاساس الدستوري لحقوق الانسان في العراق، الدسنور العثماني، دستور 1963، 1958 .1925دستور - ساعة10(1968.1970.2004) خصاص الديمقراطية، الديمقراطية والنقد . الديمقراطية وفصل السلطات . الديمقراطية والانتخابات (5ساعات) الحقوق والحريات الشخصية . الحق في الحياة . الحق في السكن . الحق في الاقامة والتنقل . الحق في - حرمة المراسلات، الحقوق والحريات السياسية . حق الانتخاب. حق الترشيح. حق تاسيس الاحزاب (6 ساعات) الديمقراطية والاحزاب الديمقراطية والنقابات الديمقراطية ، الحقوق والحريات الثقافية والاقتصادية، ـ الحقوق والحريات في الصحيفة السجادية (11ساعة

Learning and Teaching Strategies
استراتيجيات التعلم والتعليم
Strategies	ويتم ذلك من خلال إلقاء المحاضرات وتمارين الحل ، بالإضافة إلى عقد حلقات النقاش وإجراء المناظرات Strategies والاستبيانات، واداء بعض المهام بصورة استطلاعات راي واحصائيات ومقابلات

Student Workload (SWL)			
الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	3
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	27	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	75		

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Module Evaluation تقييم المادة الدراسية					
Formative assessment	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 10, 11 and 12
Summative assessment	**Midterm Exam**	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
Week	**Material Covered**
Week 1	معني الحق وتطور مفهومه
Week 2	الاساس الشرعي للحقوق الانسان...الحقوق في الديانة اليهودية
Week 3	حقوق الانسان في الديانة المسيحية
Week 4	حقوق الانسان في الديانة الاسلامية
Week 5	الاساس الدستوري لحقوق الانسان في العراق
Week 6	الدسنور العثماني
Week 7	د 1925. 1963.1958
Week 8	د 2004.1970.1968
Week 9	خصاص الديمقراطية
Week 10	الديمقراطية والنقد . الديمقراطية وفصل السلطات . الديمقراطية والانتخابات
Week 11	الحقوق والحريات الشخصية . الحق في الحياة . الحق في السكن . الحق في الاقامة والتنقل . الحق في حرمة المراسلات
Week 12	الحقوق والحريات السياسية . حق الانتخاب. حق الترشيح. حق تاسيس الاحزاب
Week 13	الديمقراطية والاحزاب الديمقراطية والنقابات الديمقراطية
Week 14	الحقوق والحريات الثقافية والاقتصادية
Week 15	الحقوق والحريات في الصحيفة السجادية

	text	Available in the Library?
Required Texts	. معنى الحق وتطور مفهومه بين النظرية والتطبيق . د. علي الشكري الدستور العراقي لسنة 2005	Yes
Recommended Texts	الديمقراطية والمجتمع المدني . حيدر ناظم. الديمقراطية التوافقية . محمد نبيل	No
Websites	https://www.idea.int/sites/default/files/publications/democracy-and-humanrights-AR.pdf

Learning and Teaching Resources

مصادر التعلم والتدريس

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	**A -** Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	**FX –** Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

University of falloujah
College of Applied Science
Department of pathological analyses

MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

	Module Information
	معلومات المادة الدراسية

Module Title	Arabic Language	Module Delivery
Module Type	Core	☒ Theory
Module Code	UNI-102	☐ Lecture
ECTS Credits	4	☒ Lab
		☐ Tutorial
SWL (hr/sem)	100	☐ Practical
		☒ Seminar

Module Level	1UGx11	Semester of Delivery		2
Administering Department	pathological analyses	College		Applied Science
Module Leader		e-mail		
Module Leader's Acad. Title	Assistant Professor	Module Leader's Qualification		Ph.D.
Module Tutor	Name (if available)	e-mail		E-mail
Peer Reviewer Name	Name/	e-mail		E-mail
Scientific Committee Approval Date	01/06/2023	Version Number		1.0

	Relation with other Modules
	العلاقة مع المواد الدراسية الأخرى

Prerequisite module		Semester	2
Co-requisites module	None	Semester	

	Module Aims, Learning Outcomes and Indicative Contents
	أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية				القراءة من دون لحن ـ.الحد من الاخطاء الاملائية ـ. الحد من الاخطاء النحوية ـ. الاطلاع على تاريخ اللغة العربية ـ. تعريف الطلبة بمزايا وخصائص لغة القران الكريم
Module Learning Outcomes مخرجات التعلم للمادة الدراسية				تعلم القراءة من دون لحن ـ. تجاوز الاخطاء الاملائية ـ. معرفة تاريخ العربية ـ. تعلم قواعد اللغة العربية ـ. معرفة الطلبة بمزايا اللغة
Indicative Contents المحتويات الإرشادية				نشأة اللغة العربية، اهمية اللغة العربية، خصائص العربية (8ساعات

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	ويتم ذلك من خلال إلقاء المحاضرات وتمارين الحل ، بالإضافة إلى عقد حلقات النقاش وإجراء المناظرات والمساجلات الشعرية ، واداء بعض المهام بصورة مقالات وخطابات باللغة العربية

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	48	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	52	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل		001	

Module Evaluation تقييم المادة الدراسية					
	As	**Time/Number**	**Weight (Marks)**	**Week Due**	**Relevant Learning Outcome**
Formative	**Quizzes**	2	10% (10)	5, 10	LO #1, 2, 10 and 11

assessment	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 10, 11 and 12
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

	Delivery Plan (Weekly Syllabus)
	المنهاج الاسبوعي النظري
Week	**Material Covered**
Week 1	نشأة اللغة العربية
Week 2	اهمية اللغة العربية
Week 3	خصائص العربية
Week 4	العدد والمعدود
Week 5	كتابة الهمزة وانواعها
Week 6	الفرق بين التاء والهاء والتاء المبسوطة والتاء المربوطة في الكتابة
Week 7	الف الممدودة والمقصورة
Week 8	المفعول المطلق
Week 9	المفعول فيه
Week 10	علامات الترقيم واثرها في فهم النص
Week 11	الاخطاء الشائعة في اللغة العربية
Week 12	موقف الاسلام من الشعر والشعراء
Week 13	الخطابة وانواعها
Week 14	ان واخواتها
Week 15	كان واخواتها

		Learning and Teaching Resources
		مصادر التعلم والتدريس
		Available in the Library?
Required Texts	نهج البلاغة	yes

Recommended Texts		No
Websites		https://www.noor-book.com

			Grading Scheme مخطط الدرجات		
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