	Ministry of Higher Education and Scientific Research - Iraq Al-Nahrain University College of Science Applied Pathological Analysis Department	

MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information معلومات المادة الدراسية					
Module Title	MEDICAL LABORATORY TECHNIQUE			**Module Delivery**	
Module Type	CORE			☒**Theory** ☒**Lecture** ☒**Lab** ☒**Tutorial** ☐**Practical** ☒**Seminar**	
Module Code	APPA111				
ECTS Credits	9				
SWL (hr/sem)	225				
Module Level	UGx11 1		**Semester of Delivery**	1	
Administering Department	Applied pathological analysis		**College**	Science	
Module Leader	Asst. Pro. Sarah A. Mahdi		**e-mail**	Sara.abdalqder@nahrainuniv.edu.iq	
Module Leader's Acad. Title	Assistant professor		**Module Leader's Qualification**	Ph.D.	
Module Tutor	Dr. Samar T. Hameed MSc. Huda Ghazi MSc. Omar Khalid Suhail		**e-mail**	samar.thamer@gmail.com huda.ghazi@nahrainuniv.edu.iq omar.khalid@nahrainuniv.edu.iq	
Peer Reviewer Name	Asst. Pro. Sarah A. Mahdi		**e-mail**	Sara.abdalqder@nahrainuniv.edu.iq	
Review Committee Approval			**Version Number**	1	
Lab. staff	MSc. Amer Adnan, MSc. Dania Emad Ibrahim, MSc. Huda Ghazi Naser, MSc. Noor Dheyaa Jaafar, MSc. Athraa Falah, MSc. Omar Khalid Suhail, MSC. Eman Adnan Abdulmajeed, MSc. Zainab Ali, MSc.				

	Nada Mohammed, MSc. Ibrahim Abdul Kareem, MSc. Alaa Waleed Qader, MSc. Anwar Hameed Darwesh, MSc. Noor Jumaa Swari

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	1. Enable students to be able to understand the main functions of Lab. instruments 2. Enable students to identify the importance of these instruments to make students able to handle laboratory instruments 3. Enable students to be able to understand the basics of each technique. 4. Enable students to identify, in general, branches of the clinical tests.		
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Knowledge and understanding of the fundamental tools in each lab. 2. Determining the importance of lab instruments. 3. Explanation of handling and maintaining the instruments. 4. Training on analysis of different types of instruments. 5. Studying the mechanisms of instruments.		
Indicative Contents المحتويات الإرشادية	Laboratory safety equipment Personal safety equipment First aid to be followed in the laboratory		
Learning and Teaching Strategies استراتيجيات التعلم والتعليم			
Strategies	Knowledge and Understanding 1- Determining the importance of lab instruments. 2- Explanation of handling and maintaining the instruments		

Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	94	**Structured SWL (h/w)** الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	131	**Unstructured SWL (h/w)** الحمل الدراسي غير المنتظم للطالب أسبوعيا	6.5
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	225		

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	
	Report	1	10% (10)	13	LO # 5, 8 and 10
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	
	Material Covered
Week 1	Types of laboratory samples
Week 2	Components of laboratory samples
Week 3	Methods of separating laboratory samples
Week 4	Types of laboratory instrumental
Week 5	Methods of separating laboratory samples
Week 6	Types of laboratory instrumental
Week 7	Types of laboratory instrumental

Week 8	Standardization methods instrumental and the equipment in the lab
Week 9	Standardization methods for tests
Week 10	Electrophoresis principle and application
Week 11	Mid exam
Week 12	Biochemical tests
Week 13	Microbiology tests
Week 14	Genetic tests
Week 15	**Preparatory Week**
Week 16	**Final Exam**

Delivery Plan (Weekly Lab. Syllabus) المنهاج الاسبوعي للمختبر	
	Material Covered
Week 1	Lab 1: Safety and tools
Week 2	Lab 2: Types of sample & Types of Tube
Week 3	Lab 3: Centrifuge & PCV
Week 4	Lab 4: Water path
Week 5	Lab 5: Spectrophotometer
Week 6	Lab 6: Microscope
Week 7	Lab 7: Hematology

Learning and Teaching Resources

مصادر التعلم والتدريس		
	Text	**Available in the Library?**
Required Texts	Lisa Moran and Tina Masciangioli....'Chemical Laboratory Safety and Security	
Recommended Texts	Nicholas P. Cheremisinoff "Handbook of Hazardous Chemical Properties"	
Websites	http://www.acs.org/content/acs/en.html	

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note:

NB 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.



ملاحظة: هذا النموذج تم وضعه وتقديمه من قبل مديرية ضمان الجودة في وزارة التعليم العالي والبحث العلمي