



Ministry of Higher Education and
Scientific Research - Iraq
Al-Mustaqbal University
College Of Sciences
Department of biology



MODULE DESCRIPTOR FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	BIOSAFETYAND BIO SECURITY		Module Delivery
Module Type	CORE		Theory Lecture
Module Code	UOMU035224		
ECTS Credits	8		
SWL (hr/sem)			
Module Level	1	Semester of Delivery	1
Administering Department	Type Dept. Code	College	Type College Code
Module Leader		e-mail	
Module Leader's Acad. Title	Assist Professor	Module Leader's Qualification	Ph.D.
Module Tutor	None	e-mail	None
Peer Reviewer Name		e-mail	
Review Committee Approval	01/06/2023	Version Number	

Relation With Other Modules			
العلاقة مع المواد الدراسية الاخرى			
Prerequisite module		Semester	
Co-requisites module		Semester	

Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

<p>Module Aims أهداف المادة الدراسية</p>	<ol style="list-style-type: none"> 1) Understanding of hazard management references and familiarity with local biosafety regulations 2) Understanding the medical risk management system and its risk assessment and application of protection and mitigation systems 3) Spreading and consolidating the principles and culture of biological risk management to ensure the health and safety of all. 4) Conducting and publishing scientific research in application of local and international concepts of biosafety and biosecurity 5) Distinguishing between useful and safe applications and realizing the dangerous applications of scientific research. 6) Learn about biological hazards 7) How to deal with biological hazards 8) How to mitigate biological hazards
<p>Module Learning Outcomes مخرجات التعلم للمادة الدراسية</p>	<ol style="list-style-type: none"> 1) Demonstrating practical skills: demonstrating skills in how to deal with accidents that occur while working in laboratories 2) Identifying biological risks and infectious diseases and how to control them in laboratories 3) Learn how to use workers in the two fields of work 4) Risk Exploration and Problem Solving: Identify and troubleshoot common problems that may be encountered while working in the laboratories, develop solutions, and effectively troubleshoot technical issues. 5) Applying ethical considerations: identifying and discussing ethical considerations related to the safety of laboratory workers, such as confronting expected risks during work, biological security, responsible use of available devices and equipment, and emphasizing good ethical relationships among laboratory workers.
<p>Indicative Contents المحتويات الإرشادية</p>	<p>Indicative content includes the following. An introduction to safety and security in biological laboratories and work injuries in them: an overview of methods of preventing occupational accidents and identifying the most important behaviors to be followed in laboratories and strategies for their application</p>
<p>Learning and Teaching Strategies استراتيجيات التعلم والتعليم</p>	
<p>Strategies</p>	<p>Type something like: The main strategy that will be adopted in delivering</p>

	<p>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.</p>
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Student Workload (SWL) الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	102	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعياً	7
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	98	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعياً	6.5
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, 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	Occupational Safety and Health and General objectives of the Occupational Safety and Health
Week 2	Biological safety objectives and A brief history the development of biosafety
Week 3	Biological hazards and Control of biological hazards
Week 4	Methods of control biological hazards

Week 5	The right choice for those working in laboratories and Work Permits
Week 6	The most important behaviors of human relations
Week 7	Mid exam
Week 8	Hazardous waste and methods of Treatment and drainage
Week 9	Procedures and methods of trading and dealing with laboratory waste
Week 10	Biosecurity and Principles of Laboratory Biosecurity
Week 11	Risk Management Methodology
Week 12	Elements of a Biosecurity Program
Week 13	Information Security and Countering biorisks
Week 14	Discussion the home work
Week 15	Preparatory Week
Week 16	Final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	None
Week 2	
Week 3	
Week 4	
Week 5	
Week 6	
Week 7	
Week8	
Week9	
Week10	
Week11	
Week12	
Week13	
Week14	

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	1- Salerno, R.M., Gaudioso, J., (2015). Laboratory Biorisk Management. Bio-safety and Bio-security. CRC Press	No
Recommended Texts		
Websites	1- World Health Organization (2006), Laboratory Bio-security Manual. WHO Press Geneva 2- World Health Organization (2004), Laboratory Bio-safety Manual. 3ed edition. WHO Press Geneva	

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