



Ministry of Higher Education and
Scientific Research - Iraq
University of Baghdad
College of Science
Department of Biology



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية

Module Information			
معلومات المادة الدراسية			
Module Title	Biosafety and Biosecurity		Module Delivery
Module Type	Core		<input checked="" type="checkbox"/> Theory <input type="checkbox"/> Lab
Module Code	BIO12009		
ECTS Credits	3		
SWL (hr/sem)	75		
Module Level	UG 1	Semester of Delivery	2
Administering Department	Biology	College	Science
Module Leader	Ahmed Jasim Mohammed	e-mail	Ahmed.jasim@sc.uobaghdad.edu.iq
Module Leader's Acad. Title	Assist.Professor	Module Leader's Qualification	Ph.D.
Module Tutor	Faiza Kadhim Emran	e-mail	Faiza.kadhim@sc.uobaghdad.edu.iq
Peer Reviewer Name	Dr. May T. Flayyih	e-mail	may.talib@scbaghdad.edu.iq
Scientific Committee Approval Date	9/11/2023	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	The student learns the basic concepts in safety and biosecurity, the student learns how to deal with laboratory materials, biological devices and equipment, the student learns how infection and pathogens are transmitted and how to deal with them with care, the student learns how to protect himself and his colleagues by following the international guidelines for safety and biosecurity, Teaching the student the ethics of scientific research and not disclosing important information
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<ol style="list-style-type: none"> 1. The student learns what safety and biosecurity. 2. the student learns how to use instrument carefully and protect himself by following the guiding rules. 3. dealing with biological materials and wearing special laboratory clothes 4. Identifying the local and international guiding rules and how to apply them with caution through the use of the projector.
Indicative Contents المحتويات الإرشادية	Knowing the local and international guidelines and how to apply them with caution, guiding the student and developing his desire for specialization, expanding the student's ability to understand biosafety laws, dealing with biological materials professionally, safely and ethically, not dealing with any party outside the laboratory or scientific institution.

Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The use of modern projectors and films, the use of drawings and charts on the board, the use of PowerPoint to present information, written tests, Ask intellectual questions during the lecture
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	18	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	1
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	57	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4
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	10	20	1, 3, 5, 8, 11, 12, 13, 14, 15	All
	Assignments	7	20	2, 4, 6, 8, 9, 10, 12	All
Summative assessment	Midterm Exam	2 hr.	10% (10)	7	LO #1, #2, #3
	Final Exam	3 hrs.	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)

المنهاج الاسبوعي النظري

	Material Covered
Week 1	Occupational Safety and Health, Biosafety, Technical Definitions, Biological waste
Week 2	Treatment and drainage methods, Mitigation and drainage
Week 3	Procedures and methods of trading and dealing with laboratory waste
Week 4	The responsibility of management in achieving safety at work sites
Week 5	Why we need Biosafety? What is Biosecurity? Biosafety is related to several fields, Biosafety containment levels
Week 6	Biohazard Symbol, Biosafety Issues, What are biological hazards?
Week 7	Mid term exam
Week 8	Biohazards Materials, Types of pathogens, Biohazardous Materials
Week 9	Control of biological hazards, Methods of control biological hazards
Week 10	Biological Agent, Standard Microbiological Practices
Week 11	Biological Safety Cabinets (BSCs), Biohazardous Waste Containers, Transportation
Week 12	Some factors influencing biosecurity, What are the Biosecurity hazards?

Week 13	Biosecurity in laboratories, Laboratory Risks, A Biosecurity Risk Assessment and Management Process
Week 14	Biosecurity risks, Laboratory biosecurity program , The Virtual Biosecurity Center (VBC)
Week 15	Responsibility for VBM (Valuable Biological Material), Elements of a Strong Biosecurity Program
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	Salerno, R.M and Gaudioso, J. Laboratory Biosecurity Handbook , CRC Press. 2007	No
Recommended Texts	Harding, A.L., and Brandt Byers, K. Epidemiology of laboratory-associated infections . In: Fleming, D.O., and Hunt, D.L. Biological safety: principles and practices. Washington, DC: ASM Press, 2000;35-54	No
Websites	Salerno, R.M and Gaudioso, J. Laboratory Biosecurity Handbook , CRC Press. 2007	

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.				