

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty
Name of Department:

اسم الكلية: العلوم
اسم القسم العلمي: العلوم البيولوجية

Course name	Agricultural plant biotechnology	اسم المقرر
Course No.	0494437	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	2-3-3	عدد الساعات النظرية
Practical Hours	2-3-3	عدد الساعات العملية
Prerequisites	(0494231+0490281) OR (0494337) OR (0497295)	متطلبات المقرر
Course topics	1. Introduction to plant (Agriculture) biotechnology 2. Plant genome; the organization and expression of plant genes 3. Basic tools in biotechnology 4. Plant tissue culture 5. The genetic manipulation of herbicide tolerance 6. The genetic manipulation of pest resistance 7. Plant disease resistance 8. Strategies for engineering stress tolerance 9. The improvement of crop yield and quality 10. Molecular farming 11. Science and society: public acceptance of genetically modified crops 12. Bioinformatics مواضيع المقرر	

Text book: Slater, A., Scott, N. and Flower, M. 2008. Plant biotechnology. Oxford University Press. UK.

عنوان الكتاب:
(الاسم، المؤلف، سنة الطبع، دار النشر)

References:

1. Brown, T. A. 2006. Gene cloning and DNA analysis, An introduction, 6th ed.. Blackwell Publishing. UK.
2. Purohit, S. S. 2011. A laboratory manual of plant biotechnology, 2nd revised edition. Agrobios (india). India.

عنوان المرجع:

(الاسم، المؤلف، سنة الطبع، دار النشر)

Grading			آلية رصد المقرر	
Exams	15	%		الاختبارات
Quizzes		%		امتحانات قصيرة
H.W.	15	%		واجبات
Project (field Study or practical)	30	%		مشاريع (دراسة ميدانية/ مختبر)
Final	40	%		الاختبار النهائي
100%				

أهداف مخرجات المقرر				
المستوى المطلوب من عضو هيئة التدريس لتحقيق الهدف			أهداف مخرجات المقرر	الرقم
منخفض (ن)	متوسط (م)	عالي (ع)		
				1
				2
				3
				4
				5
			منسق المقرر (اسم عضو هيئة التدريس المشرف على توصيف المقرر وتوقيعه)	
			الرتبة الأكاديمية	
/ /			تاريخ إعداد النموذج	

Course objectives					
No:	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and Activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	Understanding of Fundamental Principles of plant biotechnology	Gain a thorough understanding of the fundamental principles underlying plant biotechnology, including genetic modification, gene expression regulation, and molecular biology techniques.	H		
2	Proficiency in Biotechnological Tools	Develop proficiency in using essential biotechnological tools and techniques such as recombinant DNA technology, gene transfer methods, plant tissue culture, PCR, and genetic analysis	H		
3	Knowledge of Plant Genome and Molecular Genetics	Acquire knowledge about plant genomes, genetic variation, gene function, and regulatory mechanisms, enabling the interpretation of genomic data and the design of molecular strategies for crop improvement.		M	

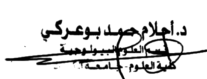
4	Awareness of Agricultural Biotechnology Applications	Explore various applications of agricultural biotechnology, including the development of transgenic crops with enhanced traits such as herbicide resistance, pest resistance, and stress tolerance, and understand their significance in improving agricultural productivity and sustainability.	H		
5	Critical Thinking and Problem-Solving Skills	Develop critical thinking skills to evaluate the benefits, risks, and ethical implications of biotechnological interventions in agriculture, and apply problem-solving approaches to address challenges in crop improvement and sustainable farming practices		M	
6	Awareness of Environmental and Ethical Considerations	Understand the environmental impact of biotechnology in agriculture, including potential risks and benefits, and critically evaluate ethical considerations related to the use of genetically modified organisms (GMOs)		M	

Kuwait University
Vice President for Academic Affairs



جامعة الكويت
KUWAIT UNIVERSITY

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نائب مدير الجامعة للشئون العلمية

		and biotechnological interventions in plant breeding and crop production			
Coordinator (Name and Rank):		Dr. Ahlam Hamad Bouariky Assistant Professor			
Signature:			Date:	14/ 3 /2024	