

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty :

اسم الكلية:

Name of Department:

اسم القسم العلمي:

Course Name	Plant Breeding	اسم المقرر
Course No.	0494 – 434	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	2	عدد الساعات النظرية
Practical Hours	3	عدد الساعات المحلّية
Course topics	مواضيع المقرر	

1. Introduction:

- Definition, art and science of plant breeding, evolution, goals and practical accomplishments

2. The strategy Genetic basis of plant breeding:

- Genetic diversity
- Gene recombination is plant breeding
- Quantitative inheritance

3. Reproduction systems:

- Sexual reproduction
- Self and cross pollination
- Asexual reproduction

4. Mechanisms regulating plant fertility:

- Incompatibility
- Male sterility

- Apomixes and inter specific hybridization

5. Classic breeding methods:

- Breeding self-pollinated crops
- Breeding cross-pollinated crops
- Breeding clonally propagated crops

6. Breeding hybrid cultivars:

- Inbreeding in cross pollinated crops
- Hybrid vigor or heterosis

7. Tools in plant breeding:

- Variation in chromosome number
- Induction of mutation

8. Biotechnology in plant breeding:

- Plant cell and tissue culture
- Plant genetic engineering
- Issues in the application of biotechnology

9. Selected breeding objectives:

- Breeding for some agriculturally important crops
- Breeding resistance to abiotic stress
- Breeding and Kuwaiti environment

10. Germplasm resources:

- Germplasm conservation
- Germplasm maintenance
- of Plant Breeding.

Text book: (Name, Author , Year , Publisher)

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

Breeding Field Crops, Sleper, D.A. & Poehlman, J.K. 2006., 5th edition (**Latest edition**). Wiley-Blackwell publishing.

Principles of Plant Breeding, Allard, R.W. 1999. 2nd edition. Wiley.

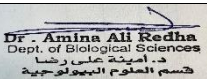
References: (Name , Author , Year . Publisher)	عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
Principles of Plant Genetics and Breeding, Acquaah, G. 2020. 3 rd edition (latest edition). Wiley-Blackwell publishing.	

Prerequisites				متطلبات المقرر	
Grading	Exams	20	%		الاختبارات
	Quizzes	5	%		امتحانات قصيرة
	H.W.	5	%		واجبات
	Project (field study) LAB	30	%		مشاريع (دراسة ميدانية)
	Final	40	%		الاختبار النهائي
		100	%		آلية رصد المقرر

أهداف مخرجات المقرر :					
الرقم	أهداف مخرجات المقرر :		أمثله من المقرر لتحقيق هذه الأهداف		المستوى المطلوب من عضو هيئة التدريس لتحقيق الهدف :
					عالي متوسط منخفض
1					
2					
3					
4					
5					
					الحقول
					المهارات
					منسق المقرر (اسم عضو هيئة التدريس المشرف على توصيف المقرر ، توقيعه ، الختم و 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	Understand plants reproductive systems.	Sexual and asexual reproduction, using hybridization method.	H		
2	Understand classical and modern genetics.	Inheritance, gene expression, qualitative and quantitative genetic traits, and the structure and function of nucleic acid.	H		
3	Learn to evaluate the advantages and limitations of different breeding strategies.	Some could be applied in the laboratory experiments.		M	
4	Learn teamwork and leadership skills.	Working together on joint experiments at the research laboratory, including analysis of data, and report writing.	H		
5	Understand the methods of plant biotechnology.	Apply some of the methods for improvement of plant genetic traits.		M	
Fields					
Skills	They should be able to have a better scientific evaluation and analysis of the experimental data. Develop skills in scientific communications, apply critical thinking and problem solving.				
Coordinator (Name and Rank):	Amina Redha, Associate Professor.				
Signature and stamp:					
Date:	8\ 11 \2025				