

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science

اسم الكلية:

Name of Department: Biological Science

اسم القسم العلمي:

Course Name	Animal Evolution & Systematics تطور الحيوان ونظم تصنيفه	اسم المقرر
Course No.	0493 - 330	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	2	عدد الساعات النظرية
Practical Hours	1	عدد الساعات المحلّية
Course topics		مواضيع المقرر
Theoretical: 1. Introduction & Evolutionary Applications 2. Classification & Phylogenetics 3. Variation in Populations 4. Modes of Selection & Adaptation 5. Speciation & Macroevolution Practical: 1. Introduction & "Evolutionary Evidence" virtual lab 2. "Domesticated Dogs" & "Flowers and Trees" (phylogenetic reconstruction) virtual labs 3. "Darwin Snails" & "Experimenting with Snails" (genetic variation) virtual labs 4. "Sickle-Cell Alleles" (Hardy-Weinberg Equation) virtual lab 5. "Evolution for Ecology" & "Mendelian Genetics" (population genetics) virtual labs 6. "How the Guppy Got Its Spots" (Hardy-Weinberg Equation) virtual lab 7. "Genetic Drift and Bottlenecked Ferrets" (genetic drift) virtual lab 8. "Finches and Evolution" (speciation) virtual lab 9. Molecular phylogenetics I: obtaining genetic data, alignment 10. Molecular phylogenetics II: maximum parsimony & distance reconstruction methods 11. Molecular phylogenetics III: maximum likelihood & Bayesian reconstruction methods		
Text book: (Name, Author , Year , Publisher)		عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)

Evolution, Latest Ed. by Douglas Futuyma

References: (Name , Author , Year . Publisher)

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

Evolutionary Analysis, Latest Ed. by Scott Freeman and Jon Herron

Prerequisites

0493 - 205

+

(0493 - 201 **or** 0493-206)

لدفعة 2018 وما بعد فقط

متطلبات المقرر

Grading	Exams	30	%		الاختبارات	آلية رصد المقرر
	Quizzes	0	%		امتحانات قصيرة	
	H.W.	0	%		واجبات	
	Lab work	30	%		مختبرات	
	Final	40	%		الاختبار النهائي	
	%					

Course objectives

No.	Course Objectives (Learning Outcomes)	Example(s) of relevant (Topics and activities)	Recommended Level to satisfy the objectives		
			High	Medium	Low
1	Develop a better understanding of evolutionary theory and methods.	Introduction & Evolutionary Applications.			✓
2	Appraise the phylogenetic relationships among major animal groups.	Classification & Phylogenetics		✓	
3	Interpret phylogenetic trees and generate them .using molecular data	Variation in Populations.	✓		
4	Relate adaptation to evolution.	Modes of Selection & Adaptation.	✓		
5	Explain how evolutionary theory relates to other biological disciplines.	Speciation & Macroevolution.		✓	
Fields					



Skills		
Coordinator (Name and Rank) :	Bader Alhajeri (Full Professor)	
Signature and stamp :		
Date:	9\ 11 \2025	