

نموذج توصيف مقرر
Course Description Form

Name of College\Faculty : Science
Name of Department: Biological Sciences.

اسم الكلية:
اسم القسم العلمي:

Course Name	Animal Tissue Culture	اسم المقرر
Course No.	0497283	رقم المقرر
No. of Credits	3	عدد الوحدات
Theoretical Hours	1	عدد الساعات النظرية
Practical Hours	2	عدد الساعات العملية
Course topics		مواضيع المقرر
- Animal cell culture - Characteristics of cells in culture - Growth and maintenance of cells in culture - Cell lines and culture monitoring - Genetic engineering of animal cells in culture - Scaling up and modes of animal cell cultures - Mammalian cell products - Production from cell culture		
Text book: (Name, Author , Year , Publisher)		عنوان الكتاب : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
1. Butler, M. 2004. Animal Cell Culture: The Basics. BIOS Scientific publishers. London UK		
References: (Name , Author , Year . Publisher)		عنوان المرجع : (الاسم ، المؤلف ، سنة الطبع ، دار النشر)
1. Freshney, R.I. 2005. Culture of Animal Cells. Willey-Liss. USA.		

Prerequisites				متطلبات المقرر			
	Exams	10	%		الاختبارات		

Grading	Quizzes	5	%		امتحانات قصيرة	آلية رصد المقرر
	H.W.	5	%		واجبات	
	Project (field study)	50	%		مشاريع (دراسة ميدانية)	
	Final	30	%		الاختبار النهائي	
	%					

أهداف مخرجات المقرر :

الرقم	أهداف مخرجات المقرر :	أمثله من المقرر لتحقيق هذه الأهداف	المستوى المطلوب من عضو هيئة التدريس لتحقيق الهدف :		
			منخفض	متوسط	عالي
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	Define and list the different types of animal cultures and discuss the advantages and disadvantages of the technology of animal tissue culture.	Advantages and disadvantages of working with cultured cells and types of cultures			X
2	Identify the sources of cultured cells, review the basis for selection of cultured cells and	Sources of cells, cell types, characteristics of normal cells in		X	



	outline the requirements of cells in culture.	culture, culture conditions and medium supplements			
3	Apply aseptic techniques, prepare complete growth medium grow, maintain cultures of adherent mammalian cells and construct and analyze a growth curve of cultured cells.	The importance of aseptic techniques and culture maintenance	X		
4	Recall viability assays and describe indirect methods of cell determination and culture monitoring.	Counting cultured cells, indirect methods of cell determination and viability assays	X		
5	Give examples of transfection techniques of cultured cells, defend the need for genetically engineered cells and outline products of animal and mammalian cell cultures.	Methods of DNA transfection of cells in culture, gene selection and amplification, monoclonal antibody production, glycoprotein production and viral vaccines from cultured mammalian cells		X	
6	Distinguish between the different methods of scaling up of animal cell cultures and recognize the modes of cultures.	The requirement for culture scale up and methods of cultures scale up		X	
Fields	Cell culture, genetic engineering of cultured cells and animal cell, mammalian cell products				
Skills	Aseptic techniques, initiation and maintenance of cell culture, viability assays, manipulation of cells and measurement of cellular products.				
Coordinator (Name and Rank) :		Dr. Maryam Alrashid, Associate Professor			

Kuwait University
Vice President for Academic Affairs



جامعة الكويت
KUWAIT UNIVERSITY

جامعة الكويت
نائب مدير الجامعة للشئون العلمية

Signature and stamp :	 Dr. Maryam Alrashid Dept. of Biological Sciences Faculty of Science - Kuwait University
Date:	4\11 \2025