هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

Course Specifications

Course Title:	**Cell Biology**
Course Code:	**211 BIO**
Program:	**Biology**
Department:	**Biology**
College:	**Science**
Institution:	**Jazan University**

Table of Contents

A. Course Identification

1. Credit hours:
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☑ Elective ☐
3. Level/year at which this course is offered: **3/two** Biology Program
4. Pre-requisites for this course (if any)**: 101 Bio**
5. Co-requisites for this course (if any)**: Non**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**		
2	**Blended**		
3	**E-learning**		
4	**Distance learning**	26 h	100%
5	**Other**		

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	**Lecture**	Online
2	**Laboratory/Studio**	Online
3	**Tutorial**	----
4	**Others** (specify)	----
	Total	60

B. Course Objectives and Learning Outcomes

1. Course Description

This course presents some topics of cell biology including prokaryotic and eukaryotic cells, the cell theory, organic and in-organic components of the cell, cell organelles (structure & function), cell division, apoptosis, and stem cells.

2. Course Main Objective

This course is designed to provide students with the following concepts:

1- To identify the differences between the prokaryotic and eukaryotic cells.
2- To understand the structure and functions of the cell organelles.
3- To compare between the mitotic and meiotic divisions.
4- To compare between apoptosis and necrosis.
5- To illustrate the different types of stem cells.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	**Knowledge and Understanding**	
1.1	Display a broad knowledge and understanding of the principal, theories and concepts of Biology, In addition to the basic principles of chemistry, physics, and mathematics that form the foundation on which all of biology rests.	K1
1.1.1	Define all principals, concepts, theories and aspects concerning with biology. تعريف جميع المبادئ والنظريات والمفاهيم الخاصة بعلم الأحياء	K1.1
1.1.2	label all drawings, diagrams, biological microscopic pictures and specimens related to biological science. ضع بيانات على الرسومات والمخططات والصور والعينات الميكروسكوبية الخاصة بعلم الأحياء	K1.2
1.2	Demonstrate significant knowledge and understanding of the processes, techniques, mechanisms, functions, practices, conventions and terminology of Biology.	K2
1.2.1	Differentiate (Compare) between different mechanisms, functions, practices, and aspects related to biological sciences. ميز بين (قارن) الميكانيكيات والوظائف والممارسات والرؤي المتعلقة بالعلوم البيولوجية	K2.1
1.2.2	Explain all processes, mechanisms, definitions, theories, mode of actions of all biological aspects. اشـرح جميع العمليات والمصـطلحات والنظريات وطرق عمل جميع أوجه العلوم البيولوجية	K2.2
2	**Skills :**	
2.1	Apply broad integrated underlying theories, principles, and concepts in various contexts in Biology.	S1
2.1.1	Debate the biological theories, principles and processes. ناقش النظريات والمبادئ والعمليات البيولوجية	S1.1
2.2	Practice methods of inquiry, investigation and research for complex issues and problems in Biology	S2
3	**Values:**	
3.1	Show confidence and potential for leadership, long life learning and entrepreneurship.	V1
3.1.1	Access multiple sources of information, capture essential information, and distinguish it from extraneous data. الوصـول إلى مصـادر متعددة للمعلومات، والتقاط المعلومات الأساسية وتمييزها عن البيانات الدخيلة	V1.1

C. Course Content

No	List of Topics	Contact Hours
1	**Introduction, Cell theory.**	3
2	**Chemical components of the cell**	5
3	**Cell Membranes**	4
4	**Cell Organelles.**	8
5	**Cell division**	3
6	**Apoptosis**	3
7	**Stem cells**	2
8	**Final Exam**	2
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge and Understanding**		
1.1	Demonstrate structures, features, and processes related cell biology.	Lectures,	Quizzes, Mid & Final-term exam
1.2	Identify the items and their related functions.	Lectures, Lab work	Quizzes, Mid & Final-term exam
2.0	**Skills**		
2.1	Explain aspects relevant in cell biology.	Lectures, Lab work	Quizzes, Mid & Final-term exam
2.2	Compare the different structures and features related to cell biology.	Lectures, Lab work	Quizzes, Mid & Final-term exam
3.0	**Values**		
3.1	Illustrate ability to work in groups and peer individual responsibility	Group Discussion, Lab work	Lab work assessment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Theoretical assignment	6	3
2	Practical assignment	8	5
3	Mid-term exam	8	10
4	Practical mid-term exam	9	10
5	Written assignment	10	2
6	Theoretical quiz	10	5
6	Final practical exam	13	15
7	Final theoretical exam	15	50

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :
Only available online (By Jazan University's E-mail).

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	- Alberts B. *et al*., (1994). Molecular Biology of the Cell. Garland Publishing, New York. - الرباعي. علي، واخرين (2015). علم الخلية. - مكرم ضياء شكارة (2014). علم الخلية. دار المسيرة للنشر والتوزيع والطباعة. شركة جمال محمد حيف

Essential References Materials	Thorp N.O. (2000). Cell Biology. John Wiley and Sons. New York.
Electronic Materials	**www.emc.maricopa.edu** **www.biology.clc.uc.edu**
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	1 Lecture room(s) for groups of 50 students. 1 Laboratory for group of 25 students.
Technology Resources (AV, data show, Smart Board, software, etc.)	AV, data show, Smart Board, Blackboard
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	Light microscopes, glassware, chemicals, consumables, dissection tools.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching	Students, Faculty	Direct (questionnaire)
Effectiveness of assessment	Peer reviewer	Direct (Cross check marking)
Extent of achievement of course learning outcomes	Program leader	Indirect (QA committee)
Quality of learning resources	QA, committee	Indirect (Benchmarking)

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	