



## Course Specifications

<b>Course Title:</b>	Cytology
<b>Course Code:</b>	2012102-3
<b>Program:</b>	Bachelor in Zoology
<b>Department:</b>	Biology Department
<b>College:</b>	College of Sciences
<b>Institution:</b>	Taif University

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## A. Course Identification

<b>1. Credit hours:</b> 3 hr
<b>2. Course type</b> a. University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Others <input type="checkbox"/> b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> 4 <sup>th</sup> level – 2 <sup>nd</sup> year
<b>4. Pre-requisites for this course (if any):</b> General Biology 201104-4
<b>5. Co-requisites for this course (if any):</b> None

## 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	6 hr/Week	100%
2	Blended	-	-
3	E-learning	-	-
4	Distance learning	-	-
5	Other	-	-

## 7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	30
2	Laboratory/Studio	30
3	Tutorial	--
4	Others (specify)	--
	<b>Total</b>	60

## B. Course Objectives and Learning Outcomes

<b>1. Course Description:</b> This course deals with studying the basic concepts of Cytology, cellular organization and cell division, cyto-genetics and cytological techniques.
<b>2. Course Main Objective:</b> To identify the cell as a main structure of the body, define the different types of the cells, explain the different methods of identification of cells as well as to distinguish between animal and plant cells.

## 3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	<b>Knowledge and Understanding:</b>	
1.1	Recall principles, scientific terminology and concepts across cytology and other related biological sciences.	K1
1.2	Recognize the tools used in the study of cells and the ultrastructure of cells.	K3

CLOs		Aligned PLOs
<b>2</b>	<b>Skills:</b>	
2.1	Illustrate functions and differences among major components of prokaryotic and eukaryotic cells.	S4
<b>3</b>	<b>Values:</b>	
3.1	Demonstrate commitment to professional and leadership values.	V1
3.2	Demonstrate professional responsibilities in using the proper presentation forms and scientific language.	V3

### C. Course Content

No	List of Topics	Contact Hours
1	Introduction, History and Background of Cell Biology, Cell Theory Tools and Techniques in Cell Biology (Microscopy, Cell Fractionation, Centrif.)	3L+3P
2	Molecules of the Cell (Carbohydrates, Lipids, Proteins, Nucleic Acids)	3L+3P
3	Prokaryotic and Eukaryotic cells	3L+3P
4	Structure and function of Cell Organelles	3L+3P
5	Structure of Bacterial Cell	3L+3P
6	Structure of Plant Cell	3L+3P
7	Structure of Animal Cell	3L+3P
8	Chromosomes (Prokaryotic and Eukaryotic, Special types of chromosomes) Cell Cycle	3L+3P
9	Cell Division: Binary Fission in Bacteria, Mitosis	3L+3P
10	Cell Division: Meiosis	3L+3P
<b>Total</b>		<b>30L + 30P</b>

### D. Teaching and Assessment

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

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
<b>1.0</b>	<b>Knowledge and Understanding:</b>		
1.1	Recall principles, scientific terminology and concepts across cytology and other related biological sciences.	Lectures Interactive learning	Paper-based exams
1.2	Recognize the tools used in the study of cells and the ultrastructure of cells.	Lectures Small group activities	Paper-based exams Practical reports
<b>2.0</b>	<b>Skills:</b>		
2.1	Illustrate functions and differences among major components of prokaryotic and eukaryotic cells.	Lectures Interactive learning	Paper-based exams
<b>3.0</b>	<b>Values:</b>		
3.1	Demonstrate commitment to professional and leadership values.	Small group activities Open Discussions	Practical reports Practical exam
3.2	Demonstrate professional	Small group activities	Assignments



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
	responsibilities in using the proper presentation forms and scientific language.	Interactive learning	

## 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Assignments and activities: 1- Written Assignment 2- Power-point presentation	Variable	10
2	Midterm Exam	5 <sup>th</sup>	20
3	Periodic Exam	7 <sup>th</sup>	10
4	Practical Reports	Continuous	15
5	Final Practical Exam	11 <sup>th</sup>	5
6	Final Exam	12 <sup>th</sup>	40

\*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:**

6 hours per week (as defined in the teaching schedule of the faculty member) for academic advice and consultations.

Teaching staff is also available using Blackboard web site and Taif University “Edugate” System.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	- Thomas DP and William CE (2002). Cell Biology. WB Saunders Company, 1 <sup>st</sup> Edition. ISBN-10- 0721639976, ISBN-13-9780721639970). - علم الخلية (٢٠١٥) تأليف دكتور مكرم ضياء شكاره، الطبعة السابعة، دار المسيرة للنشر والتوزيع والطباعة، المملكة الأردنية الهاشمية.
<b>Essential References Materials</b>	بيولوجيا الخلية: التركيب والوظيفة (١٩٩٥) تأليف الدكتور/ علي بن أحمد الرباعي و أ. فريد أبوزينة . الطبعة الأولى، مطبوعات جامعة الملك عبدالعزيز، المملكة العربية السعودية.
<b>Electronic Materials</b>	Blackboard website Website of Saudi digital Library
<b>Other Learning Materials</b>	Computer-based programs and professional software

### 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs,	- Classrooms for 40 students\lecture. - Laboratory for 20 students\ lab activity

Item	Resources
etc.)	
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	- Data show.
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	- Slide projector. - Permanent slides.

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	Indirect
Quality of learning resources	Peer Reviewer Students	Direct Indirect
Extent of achieving the course learning outcomes	Peer Reviewer Students	Direct Indirect

**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

<b>Council / Committee</b>	<b>Biology Department</b>
<b>Reference No.</b>	<b>Committee number 14 - Academic Year 1442-1443H</b>
<b>Date</b>	<b>22\5\2022G – 21\10\1443H</b>

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