Mutah University
Detailed Syllabus Form

First : Course Information**:**

• **Course Title: Cell Biology**	• **Course Number: 0305251**
• **College: Science**	• **Credit Hours: 3h**
• **Department: Biological Sciences**	• **Pre-requisite: 0305102**
• **Semester & Academic Year: 2st 2017/2018**	• **Instructor: Dr. Khalid Y. Alsharafa**
• **Office Hours: 12-1 Sunday Tuesday, Thursday**	• **The time of the lecture: 10-11 Sunday, Tuesday, Thursday**

Second : General Course Description

The course will study the internal organization of the eukaryotic cell, organelle and membrane function, cell-cell signaling, cell movement, cell adhesion, the extracellular matrix

Third : Course Objectives

1- The study of the structure and function of the cell

2- To focus on membrane structure and composition, transport, and trafficking; the cytoskeleton and cell movement; the breakdown of macromolecules and generation of energy.

3- The synthesis and function of macromolecules such as DNA, RNA, and proteins; control of gene expression; membrane and organelle structure and function; bioenergetics; and cellular communication.

Fourth: Expected Learning Outcomes

Students will have**:**

- describe the fundamental principles cellular biology.
- Understanding of cell structure and how it relates to cell functions.
- Understand cell signaling and how it regulates cellular functions.

Fifth : Course Plan Distribution & Learning Resources

Week No.	Topics to be Covered	Learning Resources
1.	The Chemistry of the Cell	Preparing summarized notes
2.	The Macromolecules of the Cell	Figures presentation and draw samples
3.	Cells and Organelles	Network advisemen
4.	Bioenergetics: The Flow of Energy in the Cell	Models
5.	Enzymes: The Catalysts of Life	Open discussion
6.	Membranes: Their Structure, Function, and Chemistry	Text books
7.	Transport Across Membranes: Overcoming the Permeability Barrier	Preparing summarized notes
8.	Cytoskeletal Systems	
9.	Cell Adhesions, Cell Junctions, and Extracellular Structure	
10.	The Structural Basis of Cellular Information: DNA, Chromosomes, and the nucleus, Cell Cycle, DNA Replication, and Mitosis	
11.	Cancer Cells	

Sixth : Teaching Strategies and Methods

No	**Teaching Strategies and Methods**
١	Lectures
٢	Multimedia presentations
٣	Demonstrations

٤	Collaborative group and independent projects
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Seventh : Methods of Assessment

No.	Week & Date	Methods of Evaluation	Proportion of Final Evaluation
1.	8/3/2018	first exam	25%
2.	19/4/2018	Second exam	25%
3.	5-17/5/2018	Final exam	50%
4.			
Total			(100%)

Eighth : Required Textbooks

- Primary Textbook:

- Bertoni ,G and Kleinsmith, LJ. (2012). The World of The Cell (8th edition). Pearson Benjamin Cummings Publishing, San Francisco.

- Secondary References

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Ninth : General Instructions

No	Additional Notes, Office hours, Incomplete Exams, Reports, Papers, …etc
١	Accuracy and attention in policy of student attendance at lectures time and gave notes about the prevention of inability to attendance the lectures, and may be dropped from the course for excessive absences.
٢	Preparing Reports dealing with specific cases in plant physiology and course contents
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