

## Course Specification

### A- Basic Information

<b>Programme(s) on which the course is given:</b>	MSc of Cytology, Histology and Histochemistry
<b>Department responsible for offering the course:</b>	Zoology
<b>Department responsible for teaching the course:</b>	Zoology
<b>Academic year:</b>	2012-2013
<b>Course title and code:</b>	Advanced cell biology Z621
<b>Contact hours (credit hours):</b>	Lecture: 2 hrs      Practical: 2hrs Total: 3 hrs
<b>Course coordinator:</b>	Dr. Samah Mohamed Abo – El Yazid

### B- Professional Information

The course aim and intended learning outcomes are based on that mentioned in the programme specifications, with more course-related specific details.

#### **1- Overall Aims of Course: By the end of this course, the student should be able to**

- \* Make the student aware of the organelles in the cell.
- \* Outline some advanced techniques.
- \* Describe the functions and role of every organelle.
- \* Make the student aware of the cellular immunology

#### **2- Intended Learning Outcomes of Course (ILOs):**

##### **a- Knowledge and Understanding:**

- a1- Identify the functions and structures of each organelle .
- a2- illustrate how these organelles work together to perform the cell function

##### **b- Intellectual Skills:**

- b1- Provides the student with fruitful information about these structures.
- b2- Imaging the principle role of each.

##### **c- Professional and Practical Skills:**

- c1- Be aware of the structure of cells and how they work.
- c2- Be aware of cell organelles under electron microscope.

##### **d- General and Transferable Skills:**

- d1- Increasing student's ability to examine the cell & its structure.
- d2- Enhancing their imaginative power about what is happening in the cell.
- d3- develop skills in reading and researching.

d4-Develop team work skills

d5-Use different sources of informations .

### 3- Course Contents

Topic	No. of hours	Tutorial/ Practical	Lecture
Advanced Techniques	4	1	2
Cell Membrane	2	1	1
Membrane transport ,Membrane potential, Protein, storing, Cellular immunology	2	1	1
Mitochondria	2	1	1
Ribosomes and Endoplasmic Reticulum	2	1	1
Golgi Apparatus	2	1	1
Lysosomes	2	1	1
Cilia and Flagella	2	1	1
Nucleus	2	1	1
Cell Division	2	1	1
Cell Cycle, cytoskeleton	4	1	2

### 4- Teaching and Learning Methods

- Lectures.
- Practical sessions.
- Writing essays.
- Oral presentation.

### 5- Student Assessment Methods

- Essays
- Oral exms
- Written exams.
- Practical exams.
- Quizzes.

### **Assessment schedule**

Assessment 1	Essay	Week 1 essay/term
Assessment 2	Oral exam	Twice/term
Assessment 3	Mid-term exams	Week 7
Assessment 4	Semester Work Exam	Week 10
Assessment 5	Final term exam	Week 14

### **Weighting of assessments**

Mid-term examination	20%
Final-term examination	40%
Oral examination	10%
Practical examination	20%
Semester work	10%
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Total	100%

### **6- List of references**

#### **1. Course Notes**

- 1- Internet and library material.
- 2- Handouts given separately during the course span.

#### **2. Essential Books (Text books):**

- 3- text book of cytology

#### **3. Recommended Books**

- 4- Basic Histology.
- 5- Cell Biology.
- 6- Bails Text Book of Histology

#### **4. Periodicals, web sites,....,etc**

1. Pubmed.com; cell and molecular biology

### **7- Facilities required for teaching and learning**

- \* Dark room equipped with overhead and LCD projector.
- \* Laboratory slides and specimens.
- \* Librarian facilities.
- \* Computers with internet Access.

**Course coordinator:** Dr. Samah Mohamed Abo – El Yazid

**Head of Department:** Prof. Saber Sakr