

Course Specification

A- Basic Information

Programme(s) on which the course is given:	MSc of Cytology, Histology and Histochemistry
Department responsible for offering the course:	Zoology
Department responsible for teaching the course:	Zoology
Academic year:	2012-2013
Course title and code:	Cellular metabolism Z6111
Contact hours (credit hours):	Lecture: 2 hrs Practical: 2hrs Total: 3 hrs
Course coordinator:	Prof. M. F. F. Bayomy

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

- * Identify the metabolic cycles inside the animal living cells.
- * List the mechanisms of some essential biochemical reactions in human body.

2- Intended Learning Outcomes of Course (ILOs):

a- Knowledge and Understanding:

- a1- Define the metabolic cycles inside the living animal cells.
- a2- Identify the mechanisms of the essential biochemical reactions in animal body.
- a3- Give an outline of some metabolic diseases and their biochemical changes.

b- Intellectual Skills:

- b1- Measure the student capability to classify the mechanisms of the essential biochemical reactions.
- b2- List the different metabolic cycles.

c- Professional and Practical Skills:

c1- Demonstrate skills in identification, characterization of enzymes in the metabolic pathways.

c2- Distinguish the metabolic diseases and their biochemical changes.

d- General and Transferable Skills:

d1- Measure the scientific writing ability.

d2- Utilize the oral communication skills.

d3- Use appropriate lab equipment.

d4- Use the appropriate technology such as (Internet) for scientific research.

3- Course Contents

Topic	No. of hours	Tutorial/ Practical	Lecture
Carbohydrate metabolism	6	2	3
Lipid metabolism	4	2	2
Protein metabolism	4	2	2
Amino acid synthesis & degradation	4	2	2
Nucleic acid metabolism	4	2	2
Revision	2	2	1

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%
Total	100%

6- List of references

1. Course Notes

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

• Essential Books (Text books):

- **Costanzo, L.S. (2006):** Physiology. 3rd edn., El sevier Inc.
- **Griffin, J.E. and Ojeda, S.R. (2000):** Text book of endocrine physiology. 4th edn., Oxford university press, Inc.

2. Periodicals, web sites,...,etc

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: Prof. M. F. F. Bayomy

Head of Department: Prof. Saber Sakr