

## Course Specification

### A- Basic Information

<b>Programme(s) on which the course is given:</b>	MSc of General Physiology
<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>	Neurochemistry      Z6119
<b>Contact hours (credit hours):</b>	Lecture: 2 hrs      Practical: 2hrs Total: 3 hrs
<b>Course coordinator:</b>	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**

- \* Describe some important definitions in the field of neurochemistry.
- \* List some theories explaining poisoning with neurochemistry.
- \* Outline the different mechanisms of actions of neurotransmitters.

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

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

- a1- Define the theories explaining poisoning with neurochemistry.
- a2- List the types of neurotransmitters and their mechanisms.
- a3- Identify the definitions in the field of neurochemistry.

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

- b1- Measure the student capability to identify the definitions in the field of neurochemistry.
- b2- Define the types of neurotransmitters and their mechanisms.

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

- c1- Demonstrate skills in identification of neurotransmission.
- c2- Distinguish between different neurotransmitters functions.

##### **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
Neurotransmitters and neurotransmission ( introduction )	4	2	2
Neurotransmitters and cyclic neucleotides	4	2	2
Enzymes related to cyclic neucleotides	4	2	2
Chemical receptors in the brain and receptor criteria.	4	2	2
Characterization of neural receptors.	4	2	2
Neurotransmitters	4	2	2
Aminoacides acting as neurotransmitters.	4	2	2
Prostaglandins and their relation to synaptic transmission	2	1	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%
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Total	100%

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

#### **6.1- Course Notes:**

- \* Lecture notes.

#### **6.2- Essential books (text books)**

- \* Physiology (Gyton).

#### **6.3- Recommended books:**

- \* General Physiology.
- \* Human Physiology

#### **6.4- Periodicals, Web sites....Etc:**

- \* American Journal of Physiology.

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

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

**Course coordinator:** Prof. M. F. F. Bayomy

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

**Date:** 15/1/ 2013

