

A- Basic Information

Programme(s) on which the course is given:	MSc of Fish Biology and Aquatic Ecology
Department responsible for offering the course:	Zoology
Department responsible for teaching the course:	Zoology
Academic year:	2012-2013
Course title and code:	Plankton Z672
Contact hours (credit hours):	Lecture: 2 hrs Practical: Total: 3 hrs
Course coordinator:	Prof. Dr. Mansour Galal

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

- * Summarize the differences between micro- and macroscopic organisms and their components.
- * Describe the various planktonic communities, their dynamics and their ways of regulation.
- * Compare between different plankton communities and the behavior of their organisms.
- * List the different ecological factors affecting plankton communities.

2- Intended Learning Outcomes of Course (ILOs):

a- Knowledge and Understanding:

- a1- List the major forms of planktons.
- a2- Describe the various kinds of planktons and their characteristics.
- a3- Illustrate the relationships between photosynthesis, zoo-, phytoplanktons and primary production.

b- Intellectual Skills:

- b1- Measure the capability to differentiate between different types of planktons and the various mechanisms of living as biotic components.
- b2- Analyse the resistance of some planktonic organisms against various ecological factors.
- b3- Evaluate the ability of different organisms to accommodate with various habitats.

c- Professional and Practical Skills:

- c1- Detect the various organisms in different plankton communities.
- c2- Measure the energy flow, photosynthesis production (in phytoplankton), carbon, nitrogenous and phosphorus compounds.
- c3- Follow up the seasonal changes in different plankton communities.
- c4- Utilize some statistical analyses to regress and certain types of plankton and certain ecological factors in that habitat.

d- General and Transferable Skills:

- d1- Locate internet programmes and on-line data to show various ecological habitats, their organisms and the interaction in between.
- d2- Improve writing structural reports or essay and oral communication abilities beside problem solving.
- d3- Present reports in seminars and circles of discussion.
- d4- Find effective and realistic solutions for work problems via statistical analysis and good expectations.

3- Course Contents

Topic	No. of hours	Tutorial/ Practical	Lecture
What is meant by plankton?	1		1
Classification of plankton.	1		1
The structure of plankton:			
1-Bacteria & Viruse.	1		1
2-Phytoplankton.	2		1

3-Zooplankton.	2		1
4-Detritus.	2		1
5-Fish eggs & larvae.	2		1
Functioning of plankton community.	4		2
Factors influencing phytoplankton photosynthesis.	4		2
Zooplankton activity.	4		2
Seasonal changes in plankton communities.	4		2

4- Teaching and Learning Methods

- Lectures.
- Research assignment.
- Oral Presentation.
- Discussion.

5- Student Assessment Methods

- Written Exams.
- Interviews.
- Oral Presentations.
- Reports

Assessment schedule

Assesment 1	Biweekly report	
Assessment 2	Mid-term exams	Week 7
Assessment 3	Semester Work Exam	Week 10
Assessment 4	Final term exams	Week 14

Weighting of assessments

Mid-term examination	20%
Final-term examination	40%
Practical examination	20%

Oral examination	10%
Semester work	10%
Total	100%

6- List of references

1. Course Notes

Brief notes related to course.

2. Essential Books (Text books):

- Ecology of freshwater.
- Ecology, principles and Application.

3. Internet web sites.

Websites related to Plankton.

7- Facilities required for teaching and learning

- * Data show.
- * Slide and over-head projector.
- * Librarian facilities.
- * Computers with internet Access.

Course coordinator: Prof. Mansour Galal

Head of Department: Prof. Saber Sakr