Course Specification

University: Menoufiya Faculty: Science

Course Specifications:

Programme (s) on Which the Course is Given: M.Sc. Zoology (protozoa and invertebrates)

Major or Minor Element of Programmes: Minor

Department offering the Program: Zoology

Department offering the Course: Zoology

Academic Year/ Level: postgraduate

Date of Specification Approval: 2012

A- Basic Information

Title: Protozoology Code: Z631

Credit Hours: 3 Lecture: 2

Tutorial: 0 Practical: 2

Total:3

B- Professional Information

1- Overall Aims of the Course:

By the end of this course, the student should be able to

* Know the new bioclassification particularly Protista.
* Demonstrate and understand the basic biology of free living protozoa.
* Compare the main types of the life cycles of parasitic protozoa.

2- Intended Learning Outcomes of Course (ILOs):

a- Knowledge and Undestanding:

a1- Describe the various free-living protozoan groups and subgroups.

a2- Ilustrate the role performed by free-living protozoa to minimizing pollution in both natural field and
man-made environments.

a3- Define and draw parasitic protozoa as causative agents in certain disease and zoonosis .

b- Intellectual Skills:

b1- Determine the student's capability to discriminate between different types
of protozoa using different types of identification keys.

b2- Discuss Zoonosis and differentiate zoonotic diseases.

c- Professional and Practical Skills:

c1- Collect and preserve the various types of protozoan organisms.

c2- Use the various normal staining techniques in protozoa.

c3- Design lab. experiments to follow up protozoan succession.

d- General and transferable Skills:

d1- Locate internet programmes and on-line data to show various protozoan aspects.

d2- Improve writing structural reports or essay and oral communication abilities beside problem solving.

d3- Present reports in seminars and other group meeting.

d4- Find effective and realistic solutions for work peoblems via analysis and good expectations.

3- Contents

Topic	No. of Hrs.	Lecture	Tutorial / Practical
Protozoan Taxonomy, Difficulties & evolutionary.	4	1 x2 hr	2x2 hr
Various Protozoan Habitats	4	2x2	
Free Living Protozoa	4	2x2	
Protozoan Biology	6	2x2	2 x 2
Protozoa and	8	2x2	4 x 2

Pollution			
Protozoan relationships	4	2x2	
Parasitic Protozoology & Life Cycles	6	2x2	2 x 2hr

4- Teaching and Learning methods

4.1- Lectures

4.2-.Research assignment

4.3- Oral Presentation.

4.4- Lab. Demonstrations.

5- Student assessment methods

5.1- Reports and oral to assess following up, collection and understanding of course topics.

5.2-Mid-term exam to assess mid-term performance (practical and theoritical).

5.3- Final term exam to assess final term performance (practical and theoritical).

Assessment schedule

Assessment 1 Report every 3 weeks and oral tests.

Assessment 2 Mid-term Week 7 of the term

Assessment 3 Final term Week 14 of the term

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

6.1- Course notes

* Related web sites.

6.2- Recommended books

***** Free-living Protozoa.

* Protozoa and other protista
* Parasitic protozoa.

7- Facilities required for teaching and learning

* Data show.
* Slide and over-head projector.
* Librarian facilities.

Course coordinator: Prof. Dr. Mansour Galal

Head of Department: Prof. Dr. Saber Sakr