

University: Benha

Faculty: Science

Course specifications

Programme (s) on which the course is given: (Biology)

Major or minor element of programmes: Major

Department of offering the programme: Biology

Department offering the course: Botany

Academic year /Level: 2nd year/ 1st term.

Date of specification approval: 2008

A – Basic information:

Title: Bacteriology Phycology and Plant Anatomy (GENERAL BOTANY) **Code:** 203 B

Credit Hours: **Lecture:** 3 hours / week

Tutorial: **Practical:** 4 hours / week **Total:** 7 hours /week

B – Professional Information

1. Overall aims of course: At end of this course the student able to:

- Know the comparative morphology of Algae, structure studies on the morphology of bacteria and their effects on the environment using their effect on the environment, using then in the fertilizer of the soil - Knowing the adaptation of the internal structure of roots, stem & leaf to their function.
- Study occurrence ,Habitat and Classification, Distinguish between primary and secondary growth
- Know economic importance of Algae, Description the normal and abnormal secondary growth

2. Intended learning outcomes of course (ILOS):

a- Knowledge and understanding:

By finishing this course the student will be able to:

- a1- Identify the structure of Algae, Use bacteria in some activates, Classify the meristematic tissues
- a2- Differentiate between primary and secondary meristmic & growth
- a3- Use the Algae in different aspects, and make slides

b- Intellectual skills:

By finishing this course the student will be able to:

- b1- Use of data in solving problems.
- b2- Solve problem for condition of growth, Drawing the tissues, section of roots stem & leaf, Drawing the tissues, section of roots stem & leaf, identification.
- b3- Different media for algal growth, Select the appropriate methods.

c- Professional and practical skill:

By finishing this course the student will be able to:

- c1 – Collect and classify of different species, Identify the structure and type of tissues, Making a section in the different plant organs.
- c2- Differentiate the methods for examination and growing.
- c3- Detect the Role of algae in medical, Prepare slides and staining
- c4- Use Algae in agriculture

d- General and transferable skills:

- d1- Workshop.
- d2- Communications with others.
- d3- computer treatment with matter

3. Contents:

| Topic | No. of hours | Lecture | practical |
|---------------------------------------------------------------------------------|---------------------|----------------|------------------|
| Morphology of Algae, Morphology and bacteria, Origin and development of tissue. | 18 | 9 | 9 |
| Classification, Cytology of bacteria, Normal secondary growth. | 18 | 9 | 9 |
| Reproduction, Growth of bacteria, Abnormal secondary growth. | 18 | 9 | 9 |
| Economic important of Algae, Organism relation shape, Ecological analysis | 18 | 9 | 9 |
| Total | 72 | 36 | 36 |

4. Teaching and Learning methods

- 4.1- lectures
- 4.2- Practical work (Lab. and field)
- 4.3- CD, lecture notes and discussion forum.

5. Student assessment methods

- 5.1 Discussions to assess applying and evaluating the information
- 5.2 Quiz to assess the acquired profession skills
- 5.3 Mid term exam to assess understanding **intellectual** skills
- 5.4 End of term exam to assess understanding **intellectual** skills

2-Assessment Schedule

| | |
|--------------------------|-----------|
| Assessment : Discussions | Week 1-12 |
| Assessment : Quiz | Week 3 |
| Assessment : Mid term | Week 7 |
| Assessment Final exam | Week 14 |
| Assessment 4: Final exam | Week 14 |

Weighting of assessments

| | |
|------------------------|------|
| Final term examination | 60% |
| Oral examination | 10% |
| Practical examination | 20 % |
| Semester work | 10 % |
| Total | 100% |

Any formative only assessments

6. List of references:

6.1- Course notes: Texts and practical notebook

6.2-Essential books (text books)

- Introduction of Algae
- Collage botany, Panda , 1983
- Berges Mannual , 1986
- Berges Mannual , 2000
- Berges Mannual , 2005
- Introduction of microbiology

6.3- Recommended books

- Introduction of algae
- Botany
- Plant anatomy

6.4-Periodicals, web sites: Sciencedirect.com, google.com

7. Facilities required for teaching and learning

- Microscope, slides, culture media, trips, projectors, plant samples and chemicals.

Course coordinator:

Dr.\ Mahmoud Moustafa Amer

Dr.\ Mohammed A. El. Galaly

Dr.\ Seham

Head of Department: Prof. Dr.\ Mahmoud Sewilam

Date: 1 /12 /2007