

**Kingdom of Saudi Arabia**

**The National Commission for Academic Accreditation &  
Assessment**

**COURSE REPORT  
(CR)**

# Course Specification

Institution: University of Dammam

Date: 23/10/2014

### A Course Identification and General Information

1. Course title and code: Fungi and Algae - Bio332N
2. Credit hours : 3 units (2 lectures + 1practical)
3. Program(s) in which the course is offered. (If general elective available in many programs indicate this rather than list programs) <b>Bachelor of Science degree in Biology</b>
4. Name of faculty member responsible for the course <b>A specific team from the Biology Department</b>
5. Level/year at which this course is offered: 5 <sup>th</sup> level/ 3 <sup>rd</sup> year
6. Pre-requisites for this course (if any): 101 Biol.
7. Co-requisites for this course (if any): None.
8. Location if not on main campus: Collage of Science for Girls in Dammam.

## **B. Objectives**

1. Summary of the main learning outcomes for students enrolled in the course.

At the conclusion of this course, the student will be able to:

- Identify basic concepts of fungi and algae.
- Discuss the importance of fungi and algae and its effects on our world.
- Understand how to live with these organisms.
- Analysis of general characteristics of fungi and algae and ultrastructure of them.
- Identify Advantages and disadvantages of these organisms.
- Determine the benefit of fungi and algae and how to use them in everyday life.

2- Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. Continue to follow the latest books related to the course.
2. Add websites for the students in order to provide question models and self-tests as much as possible.
3. Convert the standard course to a digital one.
4. Update the contents of the course by a continual revision and comparison with similar courses in other universities.
5. Continuous follow up of the latest advances in the field of fungi and algae morphology and anatomy and reproduction.
6. Updating participants knowledge by reviewing the most recent publications in respectful periodicals.
7. Provide participants with websites that enrich their ability to solve problems and answer relevant questions.

1. Topics to be Covered		
List of Topics	No of Weeks	Contact
- Introduction to the fungi and their importance and reproduction. - Myxomycota	1	3
Plasmodiophoromycota, Oomycota, and Chytridiomycota	1	3
Zygomycota	1	3
Ascomycota	1	3
Basidiomycota (Interoduction, Hymenomycotina)	1	3
Basidiomycota (Pucciniomycotina, Ustilagomycotina)	1	3
Deuteromycota	1	3

Introduction to the fungi and their importance and reproduction. Cyanophyta	1	3
Chlorophyta ( <i>Chlamydomonas, Pandorina, Volvox, Scenedesmus, Pediastrum, Ulothrix</i> )	1	3
Chlorophyta ( <i>Ulva, Oedogonium, Cladophora</i> )	1	3
Chlorophyta ( <i>Chara</i> ), Euglenophyta	1	3
Chromophyta (Xanthophyceae, Bacillariophyceae)	1	3
Chromophyta (Phaeophyceae)	1	3
Rhodophyta ( <i>Batrachospermum</i> )	1	3

2 Course components (total contact hours per semester):

Lecture: 3x15 hours	Tutorial: 1 x 14	Laborator y 1x1	Practical/Field work/ Interrelationship	Other: office hours
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3. Additional private study/learning hours expected for students per week. (This should be an average

: for the semester not a specific requirement in each week)

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45 hours/semester

#### 4. Development of Learning Outcomes in Domains of Learning

For each of the domains of learning shown below indicate:

- A brief summary of the knowledge or skill the course is intended to develop.
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;

- The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.
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**a. Knowledge**

- (i) Description of the knowledge to be acquired  
 Methods of asexual reproduction in fungi .  
 Methods of sexual reproduction in fungi  
 Identify the Structures of fungal cell .  
 To Identify the differences between the different Class's of fungal  
 Methods of asexual reproduction in algae .  
 Methods of sexual reproduction in algae  
 Identify the Structures of algal cell .  
 To Identify the differences between the different Class's of algal  
 Economic importance of fungi and algae.  
 Determine the morphology and internal structure of fungi and algae.

- Teaching strategies to be used to develop that knowledge

The learning activities included in this course are:

- Attendance at lectures where syllabus material will be presented and explained, and the subject will be illustrated with demonstrations and examples; completion of tutorial questions and laboratory projects designed to give further practice in the application of theory and procedures, and to give feedback on student progress and understanding.
- Completion of tutorial questions and laboratory projects designed to give further practice in the application of theory and procedures, and to give feedback on student progress and understanding.
- Completion of written assignments consisting of problems requiring an integrated understanding of the subject .
  - Self study, working through the course as presented in classes and learning materials, and gaining practice at solving conceptual problems.
  - Using PowerPoint presentations that contain a lot of illustrations that help students to quickly understand the information.
  - Make teams work collectively to participate in bidding PowerPoint
  - - Collect and display information through an Internet connection, analyzed and linked to other information.
  - References Office
  - -altklev Individual and collective duties
  - - Information display and panel discussions by students
  - - Practical semester project done by student groups
  - Provide the introductory lecture for the course content and its importance

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- (ii) Methods of assessment of knowledge acquired
- Quizzes.
  - Discussion and brainstorm
  - Written and oral exams.
  - Homework.
  - Oral presentation and 3-5 page written report.

## **b. Cognitive Skills**

- (i) Description of cognitive skills to be developed
- To give examples
  - To apply the basic methods for
  - To discuss The difference in Structure and function.
  - Presentation of information and results through research and submit assignments and short summaries
  - Data collection and the collection of new science using Computer
  - Learn how to grow and insulation, agriculture and nutrition in algae
  - Realize the greatness of The difference in composition's creation and linking of the importance of algae and its role in the environment
  - Structure and function of different parts of fungi and algae

- (ii) Teaching strategies to be used to develop these cognitive skills
- Lectures.
  - Interactive learning.
  - Discussion.
  - Explanation.
  - Self education.

- (iii) Methods of assessment of students cognitive skills
- Oral and written tests.
  - Explain and communicate the corrected answers of the exams and quizzes.
  - Feedback.
  - Homework.
  - Research projects.

## **c. Interpersonal Skills and Responsibility**

- (i) Description of the interpersonal skills and capacity to carry responsibility to be developed
- Students should demonstrate their sense of responsibility for learning by completing both reading and writing assignments in due time.
  - Students should act responsibly and ethically in carrying out individual as well as group projects.
  - Students should participate in class discussion.

- (ii) Teaching strategies to be used to develop these skills and abilities
- Discussion.
  - Explanation.
  - Guidance and supervision of the group assignments for research projects.
  - Websites visits.
  - Self study.



(iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility

- Observation.
- Interview.
- Assignments.
- Self evaluation.

<b>d. Communication, Information Technology and Numerical Skills</b>	
(i)	<p>Description of the skills to be developed in this domain.</p> <ul style="list-style-type: none"> <li>• Ability to communicate in written and in oral.</li> <li>• Ability to apply course concepts.</li> <li>• Ability to use information technology in communication and research projects.</li> </ul>
(ii)	<p>Teaching strategies to be used to develop these skills</p> <ul style="list-style-type: none"> <li>• Research projects.</li> <li>• Oral presentations.</li> </ul>
(iii)	<p>Methods of assessment of students numerical and communication skills</p> <ul style="list-style-type: none"> <li>• Periodic written and oral tests.</li> <li>• Discussion.</li> <li>• Observation.</li> </ul>
<b>e. Psychomotor Skills (if applicable)</b>	
(i)	<p>Description of the psychomotor skills to be developed and the level of performance required</p> <ul style="list-style-type: none"> <li>*To mastered of sample preparation for microscopic examination.</li> <li>*To apply the correct method to study of fungal and algal samples.</li> <li>*To ability distinguish the different specimens and microscopic samples.</li> <li>*Drawing the correct structures of fungal and algal</li> <li>*To obtain samples of fungal and cultivated</li> <li>*Acquire the skill of samples preparation for tested and easily studied.</li> </ul>
(ii)	<p>Teaching strategies to be used to develop these skills</p> <p style="text-align: center;">Teaching the student the skill of using a microscope</p> <ul style="list-style-type: none"> <li>- Preparation of laboratory samples</li> <li>- Teach the student how to draw a sample skillfully</li> </ul>

(iii) Methods of assessment of students psychomotor skills

Monthly test half

The final practical test

5. Schedule of Assessment Tasks for Students During the Semester			
Assessment	Assessment task (e.g. essay, test, group project, examination etc.)	Week due	Proportion of Final
1	The first written examination	6	10%
2	A second written examination	11	10%
3	First exam for the practical part	5	10%
4	Homework	Every two weeks	5%
5	Attendance and participation	Every week	Bonus
6	Research project	Last week	5%
7	Final test for the practical part	13	20%
8	Final	As scheduled by	40%

#### **D. Student Support**

1. Arrangements for availability of teaching staff for individual student consultations and academic advice. (Include amount of time teaching staff are expected to be available each week)

\*Office hours : 4 hours/week

\* Constant communication with the student via e-mail and Blackboard

## **E Learning Resources**

### 1. Required Text(s)

Essential References: 1. The Fungi, 2010, Amira Al-Abdalall, Al-Motanabi Pub.

2. The Algae, 2000, Abdulaziz Alsarrany; Edreece Alturk and Mohammed Alhassany Abu Adma Pub.

3- Recommended Books and Reference Material

\*Alexopoulos & Mims, Introduction of Mycology. 3<sup>rd</sup> ed.- New York: John Wiley 1979.

\*A lot of paper and research's in microbiology.

4- Electronic Materials, Web Sites etc
Listed in the black board of the course. <a href="http://www.phycology.cz/">http://www.phycology.cz/</a> - <a href="https://www.researchgate.net/group/Phycology">https://www.researchgate.net/group/Phycology</a>
5- Other learning material such as computer-based programs/CD, professional standards/regulations = Videos = Power point presentation = Assays

### Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (ie number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Lecture rooms, laboratories, etc.) <ul style="list-style-type: none"> <li>• Lecture room (60 seats).</li> <li>• Lab (6x30 seats)</li> </ul>
2. Computing resources <ul style="list-style-type: none"> <li>• Computer room with at least 60 systems</li> <li>• Remote control</li> </ul>
3. Other resources (specify –e.g. If specific laboratory equipment is required, list requirements or attach list) N/A

## **G Course Evaluation and Improvement Processes**

### 1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching

- Course evaluation form.
- Teachers-students periodical meeting.
- Student representation on faculty committees.
- Student group discussion.
- One to one student interviews.

### 2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department

- Faculty annual evaluation including teaching by the instructor and by the department.
- Bulletin boards, e-mails, online survey.

### 3 Processes for Improvement of Teaching

- Attendance of workshops in teaching methods and strategies.
- Attendance of workshops in evaluation methods.
- Periodical revision of the course outcomes.

2- Processes for Verifying Standards of Student Achievement (eg. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)

- A Committee reviews samples of student work in this course to check on the standard of grades and achievements.
- An external faculty member evaluates the course material and the students' work to compare the standard of grades and achievements with those at his university.

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

Self- assessment at every two years and the external assessment by the invited faculty member at every four years will be carried out. The feedback received from these assessments will be used to plan for further improvement in the course syllabus, teaching method, and delivery of course materials.