



# Course Specifications

Muharram 1437 H

Institution:	Faculty of Education
Academic Department :	Biology
Programme :	Biology
Course :	Animal Physiology (II)
Course Coordinator :	Prof.: Zeinab Abd El mohdy Abd Elhaleem
Programme Coordinator :	Dr: Mona Makkia
Course Specification Approved Date :	30/ 11 / 1433 H



## A. Course Identification and General Information

1 - Course title :	Animal physiology(2)	Course Code:	ZOO421
2. Credit hours :	( 3 )		
3 - Program(s) in which the course is offered:	Biology		
4 – Course Language :	Arabic		
5 - Name of faculty member responsible for the course:	Prof : Zeinab Abd Elmohdy		
6 - Level/year at which this course is offered :	8 <sup>th</sup>		
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>• Cytology BIO 123</li> <li>• Animal physiology(1) ZOO313</li> </ul>		
8 - Co-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>		
9 - Location if not on main campus :	( Main Campus, Al Majmaah City)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	50 %
B - Blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	5 %
D - e-learning	<input checked="" type="checkbox"/>	What percentage?	15 %
E - Correspondence	<input type="checkbox"/>	What percentage?	0 %
F - Other	<input checked="" type="checkbox"/>	What percentage?	30 %
Comments :	Other means practical part of the course		

## B Objectives

<p><b>What is the main purpose for this course?</b></p> <p>This course deals with the structure and function of the cardiovascular, respiratory, urinary and endocrine systems and mechanisms for maintaining their homeostasis.</p> <p><b>Briefly describe any plans for developing and improving the course that are being implemented :</b></p> <ol style="list-style-type: none"> <li>1. Re- new the course references frequently.</li> <li>2. Using websites that are relevant to the course as posting some course material on the websites to help the students</li> <li>3. Frequently check the latest discovery in science to improve the course objectives.</li> <li>4. Using power point program in teaching.</li> <li>5. exchange of Cooperate with other educational institutions to have their experience in dealing with the subject</li> </ol>
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## C. Course Description

### 1. Topics to be Covered

List of Topics	No. of Weeks	Contact Hours
<b>Theoretical part</b>		
Structure of Cardiovascular System ( heart – blood vessels –blood and its constituents) Function of CVS and mechanism of action. Blood groups	4	8
Midterm 1 + feedback	1	1
Structure and function of respiratory system – Mechanism of respiration – Process of regulation of respiration	3	6
Structure of urinary system – function of kidneys ( glomeruli and tubules) and mechanism of action	3	6
Midterm 2 + feedback	1	1
Endocrine system ( types of endocrine glands – hormonal regulation- the relation between these glands – their functions and mechanism of action )	3	6
<b>Practical part</b>		
Recognition of structures of heart – Confirmed tests for blood stains – Recognition of types of Red and White blood Cells – Osmotic fragility test of Red Blood Cells	4	8
Erythrocyte sedimentation rate –Colorimetric test for Hemoglobin determination – Detection of blood groups and RH factor	3	6
Recognition of normal and abnormal character of urine – Qualitative analysis of normal constituents of urine ( Experiments for detection of Ammonia- Urea-Chloride-Creatinine- Carbonate-Sulphur –Uric acid )	4	8
Qualitative analysis of abnormal constituents of urine ( Experiments for detection of Protein – Glucose – phosphate and acetone )	3	6
Revision	1	2

### 2. Course components (total contact hours and credits per semester):

	Credit	Contact Hours			Self-Study	Other	Total
		Lecture	Laboratory	Practical			
<b>NCAAA</b>	3 ch	28	30	-	-	-	58
<b>ECTS</b>	4.9 cp	28	30	-	<b>67</b>	<b>18</b>	<b>143</b>



**3. Additional private study/learning hours expected for students per week.**

**3.5**

**4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy**

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1.1</b>	Recognize the structure of cardiovascular, Respiratory, Urinary and Endocrine System	Lectures	Exams
<b>1.2.1</b>	Determine the function of cardiovascular, Respiratory, Urinary and Endocrine System	e-learning	Exams Homework
<b>2.0</b>	<b>Cognitive Skills</b>		
<b>2.2.1</b>	Explain the mechanism of action of cardiovascular, Respiratory, Urinary and Endocrine systems.	Lectures Brain storm	Exams
<b>2.3.1</b>	Analyze the phenomena and problems related to the function of cardiovascular, Respiratory, Urinary and Endocrine systems	Problem solving	Exams Homework
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.2.1</b>	Participate effectively with colleagues in researches and presentations	Working in small groups	Research paper
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.2.1</b>	Using advanced technology in collection and interpretation of data .	e-learning	Research paper
<b>5.0</b>	<b>Psychomotor</b>		
<b>5.1.1</b>	Use properly laboratory devices and equipment in carrying out experiments for blood and urine samples	Lab strategy	Practical exams Lab report
<b>5.2.1</b>	Examine and draw microscopic slides properly	Lab strategy	Practical exams Lab report

**5. Schedule of Assessment Tasks for Students During the Semester:**

	Assessment task	Week Due	Proportion of Total Assessment
<b>1</b>	Mid-term exam 1	5 <sup>th</sup> week	10%
<b>2</b>	Mid-term exam 2	12 <sup>th</sup> week	10%
<b>3</b>	Lab manual report, homework, Research paper and presentation	Throughout the semester	10%
<b>4</b>	Final Practical exam	16 <sup>th</sup>	20%



<b>5</b>	<b>Final theoretical Exam</b>	<b>17-19<sup>th</sup></b>	<b>50%</b>
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## D. Student Academic Counseling and Support

- 6-office hours per week according to the lecturer schedule.
- The contact with students by e-mail , mobile, office and faculty website ( [z.madkor@mu.edu.sa](mailto:z.madkor@mu.edu.sa) )

## E. Learning Resources

### 1. List Required Textbooks :

- Science of Organ Physiology, 1424 H. Nabil Ahmed Abu Elnile, International Publishing House.

### 2. List Essential References Materials :

- Science of Physiology, 1433 H. Setawi Alabd Alaah , Al Msiraa Publishing House.

### 3. List Recommended Textbooks and Reference Material :

- Textbook of Medical Physiology , 2006, Guyton AC and Hall JE, Elsevier Saunders, 11<sup>th</sup> ed.  
<http://vet.uokufa.edu.iq/staff/falah/Textbook%20of%20Medical%20Physiology.pdf>
- Ganong's Review of Medical Physiology , 2010, McGraw-Hill Companies, 23<sup>th</sup> ed.  
<https://emergencypedia.files.wordpress.com/2013/04/ganong-pdf.pdf>
- International journal of basic science
- Journal of medical research

### 4. List Electronic Materials :

- [www.searchalot.com](http://www.searchalot.com)
- [www.google.com](http://www.google.com)
- [www.pubmed.com](http://www.pubmed.com)

### 5. Other learning material :

- Microsoft office ,Word- Power point-Excel

## F. Facilities Required

### 1. Accommodation

- Number of seats in each hall equal 35
- Number of seats in each lab equal 20
- Mini lab for teaching
- Halls should be provided with advanced technology for teaching

### 2. Computing resources

- The hall should be provided with a computer
- Provide smart board and accessories

### 3. Other resources

- Provide the animal lab with devices and models needed for physiology 2 course.





## G Course Evaluation and Improvement Processes

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

- A questionnaire for course evaluation is distributed among student  
And then being analyzed

### 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Continuous follow up by supervisors
- Annual report of program

### 3 Processes for Improvement of Teaching :

- Provide the latest textbook and journals in library
- Allow the student to use website in library
- Organize program and training courses for staff members
- Periodic maintenance of teaching halls and lab
- Allow staff members to access international academic libraries and journals
- Apply the advanced technology in teaching process
- Apply e- learning program

### 4. Processes for Verifying Standards of Student Achievement

- Check marking by an independent department staff member of practical and final exam paper and model 1.
- check marking by the head of departments of a random sample ( 5%) of practical and final exam paper
- Check student exam paper by an independent faculty staff member of other department (5%)

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

- Results of student questionnaire of course evaluation.
- Course report.
- Program report.
- Program self-study.
- Periodical review of study plan and its improvement
- Periodical review of websites to update in the course

**Course Specification Approved**  
**Department Official Meeting No ( 6) Date 30 / 11 / 1433 H**

#### Course's Coordinator

**Name :** Prof : Zeianb Abd  
Elmohdy  
**Signature :** zeinab  
**Date :** ...10./ 4 / 1437 H

#### Department Head

**Name :** Dr: Mona Makkia  
**Signature :** .....  
**Date :** .../ ... / ..... H





Institution:	College of Education for Women at Al-Majma'a		
Academic Department :	Biology		
Programme :	Biology Programme		
Course :	Flora and Fauna of Saudi Arabia	BIO 424	
Course Coordinator :	Ms. Hanan Khaled Al-Mutairi		
Programme Coordinator :	Dr. Mona Abdulatif Makia		
Course Specification Approved Date :	30/11/1433H		







## A. Course Identification and General Information

1 - Course title :	Flora and Fauna at KSA	Course Code:	BIO 424
2. Credit hours :	3 HOURS (2T + 1P)		
3 - Program(s) in which the course is offered:	Biology Programme		
4 – Course Language :	Arabic language		
5 - Name of faculty member responsible for the course:	Ms. Hanan Khaled		
6 - Level/year at which this course is offered :	8 <sup>th</sup> level		
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>.....</li> </ul>		
8 - Co-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>.....</li> </ul>		
9 - Location if not on main campus :	(N/A)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<b>60 %</b>
B - Blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	<b>10 %</b>
D - e-learning	<input type="checkbox"/>	What percentage?	-
E - Correspondence	<input checked="" type="checkbox"/>	What percentage?	-
F - Other	<input checked="" type="checkbox"/>	What percentage?	<b>30 %</b>
Comments :	Other including teaching practical aspect related to practical lessons and application of theoretical aspect.		

## B Objectives

<p><b>What is the main purpose for this course?</b></p> <p>Student could identify elements of the flora and fauna of Saudi Arabia, classification and relation thereof and could identify scarce, endemic and endangered animals and plants in the Kingdom of Saudi Arabia.</p> <p><b>Briefly describe any plans for developing and improving the course that are being implemented :</b></p> <ol style="list-style-type: none"> <li>Benefitting from websites</li> <li>PowerPoint presentation approach</li> <li>Benefitting from recent researches in the area of study</li> <li>E-learning</li> </ol>
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## C. Course Description





## 1. Topics to be Covered (Theoretical+Practical)

List of Topics	No. of Weeks	Contact Hours
Studying terrains, climate and geographical place of the Kingdom. Historical profile on development of animal wildlife studies in the Kingdom.	1	4
Floral and faunal structure and various systems thereof	1	4
Relation of elements of Saudi flora and fauna with fauna elements in adjacent states. Identifying plant and animal species in the Kingdom in terms of geographical distribution, density and classification	1	4
Identifying species of scarce, endemic, immigrant, invasive and endangered plants and animals. Effects of animals over plants.	3	12
Mid-term exam 1+Feedback	1	2
Threats to animal and plant species in the Kingdom. Significance of Saudi flora and fauna in encouraging environmental tourism. Decorating flora as adornment plants	2	8
Effect of human on wild animals. Role of animal in the ecological system. Flora plants of environmental and economical importance. Identifying animal and plant species in the Kingdom in terms of geographical distribution, density and classification.	1	4
Mid-term exam 1+Feedback	1	2
Flora plants of environmental and economical importance. Plant vegetation condition in the Kingdom. Most significant reasons behind decreased number of animals. Methods of protecting wild animals against threats.	3	14
Maintaining flora and fauna of Saudi Arabia	1	4

## 2. Course components (total contact hours and credits per semester):

	Credit	Contact Hours			Self-Study	Other	Total
		Lecture	Laboratory	Practical			
NCAAA	3 ch	28	30	-	-	-	58
ECTS	4.5 cp	28	30	-	58	15	131

## 3. Additional private study/learning hours expected for students per week.

3 Hours

## 4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1.1	Identifying meaning of flora and fauna term	Lecture Arousing curiosity, enthusiasm to study course content such as presentation of some models or problems related to the course	Oral and written exams





	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.2.1	Identifying patterns of habitats and elements of animal and plant communities and economical importance thereof in the Kingdom of Saudi Arabia	Using internet Delivering practical examples	Evaluation questions by end of the lecture
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1.1	Comparing between systems and structures of floral and faunal community	Golden blast	Oral and written exams
2.3.1	Executing surveys to study theories related with flora and fauna science such as studying spread of some animals and plants in the Kingdom and how to utilize the same economically.	Using internet to prepare worksheets	Evaluating worksheets
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
3.2.1	Taking part in cooperative group work	and researches using modern technology Using internet network Collecting samples from environment and presenting the same	Evaluating presentation and research Note card
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
4.2.1	Mastering use of technology and information technology in conveying information to others such as internet and preparing researches and presentations	Using internet network Dealing with use of e-mail Preparing presentations, researches and worksheets using modern technology	Notice card Evaluating presentations Evaluating researches Correspondence and rectification of assignments through e-mail
<b>5.0</b>	<b>Psychomotor</b>		
5.1.1	Sampling animals and plants from environment and classifying the same.	Practical lessons	Notice card Laboratory tests

## 5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Mid-term exam1 (theoretical)	7 <sup>th</sup>	10%
2	Mid-term exam 2 (theoretical)	11 <sup>th</sup>	10%





3	Activities	During the semester	10%
4	Final practical exam	16 <sup>th</sup> week	20%
5	Theoretical exam	17 <sup>th</sup> -19 <sup>th</sup> week	50%

## D. Student Academic Counseling and Support

- E-mail: [h.almotiri@mu.edu.sa.com](mailto:h.almotiri@mu.edu.sa.com)
- Office hours: in accordance with table: 10 office hours
- Website: faculty portal within University's website

## E. Learning Resources

### 1. List Required Textbooks :

- Flora of Saudi Arabia book; Dr. Ahmad Mohammad Mujahed, King Saud Printing press, latest edition
- Geography of Saudi Arabia; Dr. Mohammad Abdo Al-Odat, King Saud Printing press, latest edition

### 2. List Essential References Materials :

- Flora of Saudi Arabia book; Dr. Ahmad Mohammad Mujahed, King Saud Printing press, latest edition

### 3. List Recommended Textbooks and Reference Material :

1. Fauna of Saudi Arabia(vol1-17), National commission for wild life conservation & development Riyadh.
2. Flora of Eastern Saudi Arabia, s. Collenette.
3. Flora of Eastern Saudi Arabia,James,P.,Mandy,V.P.,1995:International ,London, New York, jointly with national commission for wild life development, Riyadh.

### 4. List Electronic Materials :

4. [http://en.wikipedia.org/wiki/Flora & Fauna](http://en.wikipedia.org/wiki/Flora_%26_Fauna)
5. [http://en.wikipedia.org/wiki/Flora & Fauna of Saudi Arabia](http://en.wikipedia.org/wiki/Flora_%26_Fauna_of_Saudi_Arabia)
6. **Encyclopedia-** flora and fauna of Saudi Arabia – the Arabian Zoology Encyclopedia

### 5. Other learning material :

7. Using computer and programs such as MS Word, MS Excel and MS PowerPoint
8. Using internet

## F. Facilities Required

### 1. Accommodation





1. Size of auditorium is compatible with number of students.
2. Providing sufficient seats and preferably fixed seats.
3. Auditorium shall be provided with cutting-edge educational technologies and multiple projecting equipment including smart interactive whiteboard and e-platform.
4. Lights at auditorium and laboratory shall be sufficient and proper.
5. Providing equipment at laboratory such as microscopes; one microscope for each student, samples and models related to the practical aspect of the course.

### **2. Computing resources**

- Data show and one computer
- Interactive smart whiteboard
- Electronic platform

### **3. Other resources**

- Completion of remaining microscopic samples, laboratory models and educational capabilities at animal laboratory related to the course.

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

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

- Conducting questionnaire to measure students level of course comprehension
- Conducting questionnaire to measure quality of educational references
- Statistical analysis and interpretation of students score in the exam
- Student's number of participations during demonstration is an indicator of teaching effectiveness

### **2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :**

- Evaluating faculty member by students through the questionnaire
- Evaluating the course by students through distributing questionnaires by end of the academic semester.
- Periodic review of course description template

### **3 Processes for Improvement of Teaching :**

- Providing modern scientific references and journals in the library.
- Providing students with internet access at the library.
- Training courses and programs for faculty members out of official duty hours.
- Ensuring availability of laboratory tools and supplies required for the course.
- Follow up recent developments beneficial for teaching the course.
- Creating suitable environment.

### **4. Processes for Verifying Standards of Student Achievement**

- Reviewing sheets marked by course professor and another member of the section and outer member in order to review sample of answer books.

### **5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement :**

- Periodic meetings with students to review positive and negative aspects.
- Periodic meeting of faculty member to define and promote strengths and to define





weaknesses to overcome the same.

- Reviewing and developing studying plans in accordance with contemporary tendencies and needs of the community.
- Seeking student's views and accepting constructive criticism.

**Course Specification Approved**  
**Department Official Meeting No ( 6 ) Date 30/11/1433 H**

**Course's Coordinator**

**Name :** .....  
**Signature :** .....  
**Date :** 12/ 4 / 1437 H

**Department Head**

**Name :** .....  
**Signature :** .....  
**Date :** .../ ... / ..... H



Institution:	College of Education for Women at Al-Majma'a
Academic Department :	Biology section
Programme :	Biology Programme
Course :	Flowering Plants Taxonomy – BOT 423
Course Coordinator :	Ms. Hanan Khaled Al-Mutairi
Programme Coordinator :	Dr. Mona Makia
Course Specification Approved Date :	30/11/1433H



## A. Course Identification and General Information

1 - Course title :	Flowering plants Taxonomy	Course Code:	BOT 423
2. Credit hours :	(3T + 2P = 3 credit hours)		
3 - Program(s) in which the course is offered:	Biology section		
4 – Course Language :	Arabic language		
5 - Name of faculty member responsible for the course:	Ms. Hanan Khaled Al- Mutairi		
6 - Level/year at which this course is offered :	8 <sup>th</sup> level		
7 - Pre-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>• BOT 122</li> </ul>		
8 - Co-requisites for this course (if any) :	<ul style="list-style-type: none"> <li>• N/A</li> </ul>		
9 - Location if not on main campus :	(N/A)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	<input checked="" type="checkbox"/>	What percentage?	<b>60 %</b>
B - Blended (traditional and online)	<input checked="" type="checkbox"/>	What percentage?	<b>10 %</b>
D - e-learning	<input type="checkbox"/>	What percentage?	-
E - Correspondence	<input type="checkbox"/>	What percentage?	-
F - Other	<input checked="" type="checkbox"/>	What percentage?	<b>30 %</b>
Comments :	-----		

## B Objectives

1- What is the main purpose for this course?
<ol style="list-style-type: none"> <li>1. Recognizing history of Taxonomy and basic principles of taxonomy and development system.</li> <li>2. Finding relation between plant taxonomy and other sciences.</li> <li>3. Classifying plants and identifying the taxonomical status thereof, and naming the same with scientific names.</li> <li>4. Identifying apparent classification characteristics of the shoot, flowering set, blooms, fruits and seeds.</li> <li>5. Communicate effectively in group and individual discussions and assignments.</li> <li>6. Classifying plants on scientific and developmental basis.</li> </ol>
2- Briefly describe any plans for developing and improving the course that are being implemented :
<ol style="list-style-type: none"> <li>5. Periodic review of the course by plans and academic schedule committee of the section.</li> <li>6. Updating course content periodically based on recent developments in the field.</li> <li>7. Coping up with rapid growth in the field through utilizing cutting-edge technologies.</li> <li>8. Updating course sources of learning systematically.</li> <li>9. Teaching using PowerPoint and Data Show.</li> <li>10. Comparing vocabulary with other vocabulary delivered in other local, regional and global sections.</li> </ol>

## C. Course Description







## 1. Topics to be Covered (Theoretical+Practical)

List of Topics	No. of Weeks	Contact Hours
Introduction to taxonomy history and comparative study of multiple taxonomy systems. Identifying good and poor classification characteristics conception.	3	12
Identifying taxonomical analytical keys and methods of use, studying taxonomical units,	2	8
Mid-term exam1+feedback	1	3
studying plant scientific naming laws and identifying herbariums.	2	8
Studying resources of apparent classification characteristics: shoot, flowering set, blooms, fruits and seeds.part1	2	8
Mid-term exam2+feedback	1	3
Studying resources of apparent classification characteristics: shoot, flowering set, blooms, fruits and seeds. part 2	2	8
Studying some examples of plant families of monocotyledons and dicotyledon.	2	8

## 2. Course components (total contact hours and credits per semester):

	Credit	Contact Hours			Self-Study	Other	Total
		Lecture	Laboratory	Practical			
NCAAA	3 ch	28	30	-	-	-	58
ECTS	4.5 cp	28	30	-	60	15	133

## 3. Additional private study/learning hours expected for students per week.

3 hrs.

## 4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
1.1.1	Giving overview on history of plant taxonomy and development scale thereof.	Lecture	Weekly assignments
1.2.1	Describing floral structure and formation of sexual organs thereof	Cooperative learning	Group and individual researches
<b>2.0</b>	<b>Cognitive Skills</b>		
2.1.1	Interpreting pollination, fertilization, fruit and seeds formation processes	Raising important questions	Written exams
2.3.1	Classifying flower on the basis of floral receptacles positioning thereon	Lecture	Evaluating individual and group researches
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
3.2.1	Showing interest in responding to colleagues during assignments, presentations and group researches	Preparing presentations	Notice card Evaluating



	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
		and researches	researches and presentations and dividing into groups
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
4.1.1	Mastering use of information technology in research and writing	Demonstration using Data Show	Evaluating group discussions
4.2.1	Using internet in satisfying required tasks subsequent to each lecture	Orienting students to seek related scientific references	Charging student to deliver class presentations and providing them with appraising feedback
<b>5.0</b>	<b>Psychomotor</b>		
5.1.1	Training on flower anatomy, writing laws thereof and drawing floral projections thereof	Working in small groups	Evaluating weekly assignments

## 5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
1	Activities	Weekly	10%
2	Two written exams	6 <sup>th</sup> - 11 <sup>th</sup> week	20%
3	Final practical exam	16 <sup>th</sup>	20%
4	Final theoretical exam	17 <sup>th</sup> -19 <sup>th</sup> week	50%

### D. Student Academic Counseling and Support

- Name: Ms. Hanan Khaled
- E-mail: [h.almotiri@mu.edu.sa.com](mailto:h.almotiri@mu.edu.sa.com)
- Office hours: in accordance with table

### E. Learning Resources

#### 1. List Required Textbooks :

- N/A





## 2. List Essential References Materials :

- Flowering plants. Dr. Shukri Ibrahim Saad, Dar Al-Fikr Al-Arabi, Nassr City, 1994

## 3. List Recommended Textbooks and Reference Material :

9. Vascular plants in the Kingdom of Saudi Arabia, 1<sup>st</sup> volume Shaudry, Shawkat Ali, Ministry of Agriculture Water and National Herbarium, National Centre for Agriculture and Water Researches, Riyadh 1990
10. Flowering Plants in the Kingdom of Saudi Arabia, Colint, Shella, the Saudi Commission for Protecting and Growing Wildlife, Riyadh 1991
11. Introduction to Plant Classification, Al-Sa'ar, Qassem Fouad, Al-Dar Al-Arabia and Distribution, Cairo, 1987
12. Classification of Flowering Plants, Ibrahim Showkry, Al-Anglo Library, Cairo 1994

## 4. List Electronic Materials :

- Internet related sites

## 5. Other learning material :

1. Using Word
2. PowerPoint

## F. Facilities Required

### 1. Accommodation

- Auditoriums, laboratories, etc
- Auditorium equipped with Smart board and Data show accommodating 40-50 students

### 2. Computing resources

- Computer connected to smart board

### 3. Other resources

- Smart board
- Slides for ready plant samples and others for plant sections
- Plant sections solids
- Optical microscope

## G Course Evaluation and Improvement Processes

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

1. Distributing questionnaires to students by end of the class to acquire course evaluation
2. Conducting interview with sample of students registered in the course to acquire their views.

### 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Evaluation faculty member by colleagues in the section in delivering the course and effectiveness of tools applied for delivering the same.
- Course internal periodic review (studying plans and schedules committee)
- Programme self-evaluation
- External review

### 3 Processes for Improvement of Teaching :

- Considering recommendations of internal and external auditing outcomes related to the course





- Directions of studying plans and schedules committee on teaching the course
- Directions of section management on faculty member performance based on direct observation

#### 4. Processes for Verifying Standards of Student Achievement

- Seeking support of external menders for similar courses from sections outside the university in order to review sample of answer pages being marked by the faculty member
- Group marking by section faculty members
- Reviewing sample of pwpers marked by special committee of the section

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

- Corresponding course to similar courses being delivered at similar sections
- Reviewing course specification/description and terms thereof periodically by studying plans and schedules committee.
- Updating course sources of learning to ensure being coped up with recent development in this field.
- Statistical outcomes for evaluating students of the course and benefiting from outcomes thereof in improving and developing the course.

## Course Specification Approved Department Official Meeting No ( ---- ) Date **25/02/1432 H**

### Course's Coordinator

**Name :** Ms. Hanan Khaled  
Al-Mutairi  
**Signature :** .....  
**Date :** 12/ 4 / 1437 H

### Department Head

**Name :** Dr. Mona Abdulatif  
Makia  
**Signature :** .....  
**Date :** .../ ... / ..... H



Institution:	Majmaah Faculty of Education
Academic Department :	Department Biology
Programme :	Biology
Course :	Mycology and Plant pathology.
Course Coordinator :	Dr. Aisha Ohag Osman Mohammed
Programme Coordinator :	Dr. Mona Makkie
Course Specification Approved Date :	30/ 11 / 1433 H



## A. Course Identification and General Information

1 - Course title :	Mycology and plant pathology	Course Code:	BOT 422
2. Credit hours :	(2 hours Theory + 2 hours Practical) (Credited 3 hours).		
3 - Program(s) in which the course is offered:	Biology		
4 – Course Language :	Arabic		
5 - Name of faculty member responsible for the course:	Dr. Aisha Ohag Osman		
6 - Level/year at which this course is offered :	Eighth level		
7 - Pre-requisites for this course (if any) :	(not applies)		
8 - Co-requisites for this course (if any) :	(not applies)		
9 - Location if not on main campus :	(not applies)		
10 - Mode of Instruction (mark all that apply)			
A - Traditional classroom	lectures	What percentage?	٦٠ %
B - Blended (traditional and online)	Home work	What percentage?	١٠ %
D - e-learning		What percentage?	.....%
E - Correspondence		What percentage?	.....%
F - Other	Practical	What percentage?	30%
Comments :	.....		

## B Objectives

<p><b>What is the main purpose for this course?</b></p> <p>1- To recognize the salient features and the structure of fungi, internal structures and systematic of fungi based on the theoretical keys of systematic.</p> <p>2-To determined ecologically and laboratory the different habitat on which different types of fungi live.</p> <p>3-To differentiate between different divisions of fungi in nutrition, growth, reproduction, life cycle, signs and symptoms of the disease-infected plants and their biological and economic importance.</p> <p>4- To use recent technical search for required references to do their assignments.</p> <p>5- the results analyse and assessed for some pathogens after isolation and purification.</p> <p><b>Briefly describe any plans for developing and improving the course that are being implemented :</b></p> <p>1-Take advantage of the internet websites which related to course topics.</p>
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- 2- To use power point in teaching.
- 3- To use internet to update course content.
- 4-Work on the exchange of experiences between the university and scientific centers of the relevant.

## C. Course Description

### 1. Topics to be Covered (Theoretical+Practical)

List of Topics	No. of Weeks	Contact Hours
1-The general and the morphology characteristics of fungi, fungi cell structure and explain the structure differences by the basics of the application studied experimentally.	1	4
2-Nutrition types of fungi and media used in laboratory.	1	4
3-Types of reproduction in fungi (sexual and asexual) and identify different isolation methods used in laboratory.	1	4
4-Bases of fungi classification and study examples of Myxomycota,	2	8
<b>Mid-term exam1+feedback</b>	1	3
5-Ascomycetes, Basidiomycetes and Deuteromycetes fungi with their life cycles and the diseases which they caused.	3	12
5-Economic importance of fungi: Spoiled food, cereals, cause more plant and animal diseases and to identify the symptoms and signs of disease.	1	4
<b>Mid-term exam2+feedback</b>	1	3
6-Fungal toxins (mycotoxins): Aflatoxins, ergot isolation of fungus poison mushroom, the practical application of aspects toxins and isolation causes fungus.	1	4
7- Useful aspects of fungi: yeast Penicillin, production of organic acids, vitamins, enzymes, mushrooms and truffles.	2	8
8-The role of decomposers fungi on organic material with experience proved parasite on some vegetables and fruits.	1	4

### 2. Course components (total contact hours and credits per semester):

	Credit	Contact Hours			Self-Study	Other	Total
		Lecture	Laboratory	Practical			
NCAAA	3 ch	28	30	-	-	-	58
ECTS	4.4 cp	28	30	-	60	10	128

### 3. Additional private study/learning hours expected for students per week.

3hrs





#### 4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
<b>1.0</b>	<b>Knowledge</b>		
<b>1.1.1</b>	1- To recognize the salient features and the structure of fungi, internal structures and systematic of fungi based on the theoretical keys of systematic.	Lectures. Discussion and dialogs.	Study papers
<b>1.2.1</b>	To recognize different divisions of fungi in nutrition, growth, reproduction, life cycle, signs and symptoms of the disease-infected plants.	Brainstorming strategy	Discussion
<b>2.0</b>	<b>Cognitive Skills</b>		
<b>2.1.1</b>	1-Investigate theories and the basics related naming and divisions of fungi.	E-Learning	Worksheets
<b>2.2.1</b>	Devise the biological and the economic importance of fungi.	Problem solving	Research papers
<b>3.0</b>	<b>Interpersonal Skills &amp; Responsibility</b>		
<b>3.2.1</b>	Interact by group discussion and bear self learning responsibility.	Cooperative learning	The observation Presentations
<b>4.0</b>	<b>Communication, Information Technology, Numerical</b>		
<b>4.1.1</b>	Use modern technology for required references search to do duties	Self learning e-learning	Written tests.
<b>5.0</b>	<b>Psychomotor</b>		
<b>5.1.1</b>	1-Conduct procedural, academic and practical skills for isolation and purification pathogenic fungi.	Laboratory strategy	Practical tests The observation reports

#### 5. Schedule of Assessment Tasks for Students During the Semester:

	Assessment task	Week Due	Proportion of Total Assessment
<b>1</b>	Theoretical 1 <sup>st</sup> test Theoretical 2 <sup>nd</sup> test	6 th & 11 th week	10% 10%
<b>2</b>	Practical test+ diverse activities	During semester	10%







3	Final practical test	16 <sup>th</sup> week	20%
4	Final theoretical test	17-19 <sup>th</sup> week	50%



## D. Student Academic Counseling and Support

Dr. Aisha Ohag Osman

E.mail: ai.osman@mu.edu.sa

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## E. Learning Resources

### • List Required Textbooks :

- ١- د. عبد الله الخليل و بن صالح (١٩٩٣) - الأساس العملي للفطريات - جامعة الملك سعود.
- ٢- أبو هيلة و عبد الله ناصر (١٩٩٣): أساسيات علم الفطريات - جامعة الملك سعود.
- ٣- مجدي سعد (١٩٩١): السموم الفطرية - الهيئة المصرية العامة للكتاب - مصر.
- ٤- الخليل و ابن صالح (١٩٩٩): الأساس العملي لبيئة الأحياء الدقيقة - دار الخريجي - الرياض.

### 2. List Essential References Materials :

- ١- د. عبد الله الخليل و بن صالح (١٩٩٣)- الأساس العملي للفطريات - جامعة الملك سعود.
- ٢- أبو هيلة و عبد الله ناصر (١٩٩٣): أساسيات علم الفطريات - جامعة الملك سعود.
- ٣- مجدي سعد (١٩٩١): السموم الفطرية - الهيئة المصرية العامة للكتاب - مصر.

### 3. List Recommended Textbooks and Reference Material :

د. عبد العزيز البوني (١٩٩٠) - أساسيات الفطريات العملي - Koeltz Scientific Books - ألمانيا الاتحادية.

### 4. List Electronic Materials :

- Related websites to the course.

### 5. Other learning material :

• Microsoft Office – word ,power point .....etc

## F. Facilities Required

### 1. Accommodation

Buildings (lecture halls, laboratories, etc ...).

50 seats in class room

Microbiology laboratory (special for fungi)

### 2. Computing resources

- Computer connected to a smart board

### 3. Other resources

A computer connected to smart board and projectors, fixed in class room.

Equipped laboratories and special commensurate with the requirements for the course.

Isolation room

General media, especially for bacteria

Sterilization Mechanical Equipment (Seitz filter, cellulose filter)

Projectors

Peti dishes

Dyes



Centrifuges

## G Course Evaluation and Improvement Processes

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

Distribution of the questionnaires to students from course with multiple axes.

Analysis grades of students in the tests statistically and explained.

Sharing number of students during the explanation is an indication of the effectiveness of teaching.

### 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor :

- Through a course evaluation.
- Annual reports prepared by the department.
- Benefit from the expertise corresponding accredited colleges.

### 3 Processes for Improvement of Teaching :

Apply modern technologies in education.

Electronic learning.

### 4. Processes for Verifying Standards of Student Achievement

Review papers that have been corrected by the professor course and another member of the department.

Sample paper of answer reviewed by an external member.

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

Regular meeting of the faculty members staff based on the course to enhance the strengths and weaknesses treatment.

By questionnaires viewing students about the course topics and available learning methods.

Review and develop study plans depending on recent data.

## Course Specification Approved

Department Official Meeting No ( ..... ) Date ٣٠ / ١١ / ١٤٣٣ H

### Course's Coordinator

Name : Dr. Aisha Ohag Osman

Signature : .....

Date : 12/ 4 / 1437 H

### Department Head

Name: Dr.  
Mona Makkie

Signature : .....

Date : .../ ... / ..... H



