

# The University of Jordan

# **Accreditation & Quality Assurance Center**

# **COURSE Syllabus**

1	Course title	General Biology – lab
2	Course number	5501113
3	Credit hours (theory, practical)	1
	Contact hours (theory, practical)	3
4	Prerequisites/corequisites	General biology 5501101
5	Program title	Bachelor in Biology
6	Program code	5501
7	Awarding institution	The University of Jordan-Aqaba
8	Faculty	Basic and Marine Sciences
9	Department	Biology
10	Level of course	First year
11	Year of study and semester (s)	First semester 2019/2020
12	Final Qualification	BSc.
13	Other department (s) involved in teaching the course	non
14	Language of Instruction	English
15	Date of production/revision	15/9/2019

## **16. Course Coordinator:**

# Office numbers, office hours, phone numbers, and email addresses should be listed.

\*\* Instructor : Majduleen Sbaihat.

- \*\* E-mail: m.sbaihat@ju.edu.jo
- \*\* Office hours: ( Sun, Tuesday, Thursday) → 09:00 -10:00 AM & 11:00 12:00 PM
- \*\* Office #: Faculty of Marine Sciences Room # 1
- \*\* Phone Numbers : 032090450 Ext. 35079

# 17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

## **18. Course Description:**

As stated in the approved study plan.

Laboratory experiments in microscopy, mammalian anatomy & systematic of major living groups,

ecology. Studying plant, animal tissues and organ.

**19.** Course aims and .1 outcomes:

#### A- Aims:

- Upon successful completion of this course, students will be able to:
  - 1- Identify the parts of a compound microscope and explain their functions, and use a compound microscope to examine biological specimens.
  - 2- Identify plant and animal cell organelles and describe their functions, also recognize the common features of cells.
  - 3- Conduct tests to detect the presence of important biological macromolecules.
  - 4- Define enzyme and describe how it catalyses cellular reactions.
  - 5- Observe diffusion of substances in gas, liquid and semisolid medium and across semipermeable membrane.
  - 6- Perform lab exercises that investigate the process of fermentation, cellular respiration and photosynthesis, and identify the by-products.
  - 7- Define the following terms: mitosis, meiosis, homologous chromosomes, gamete, gonad, sperm and egg, also identify the different stages of mitosis and meiosis.
  - 8- Define the plant and animal tissues; also distinguish the different type of them.

# **B-** Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ...

#### Learning outcomes:

#### Knowledge and understanding

At the end of this module, students will be able to:

- 1- Types of microscopes and uses of each type, also should be know the parts of compound microscope.
- 2- Identify plant and animal cell organelles and describe their functions, also recognize the common features of cells.
- 3- Conduct tests to detect the presence of important biological macromolecules.
- 4- Define enzyme and describe how it catalyses cellular reactions.
- 5- Observe diffusion of substances in gas, liquid and semisolid medium and across semipermeable membrane.
- 6- Perform lab exercises that investigate the process of fermentation, cellular respiration and photosynthesis, and identify the by-products.
- 7- Define the following terms: mitosis, meiosis, homologous chromosomes, gamete, gonad, sperm and egg, also identify the different stages of mitosis and meiosis.
- 8- Define the plant and animal tissues; also distinguish the different type of them.

#### • Cognitive skills (thinking and analysis).

- The thinking skills will be developed by encouraging students to conclude answers to different questions that the instructor intends to use during the presentation of the scientific material.

- The instructor intends to stimulate the student's analytical thinking side via connections with general aspects in daily life or through questions, net searching, and home works.

Week	Date	Торіс
1	Sep. 22-2019	Introduction
2	Sep. 29-2019	The Microscope
3	Oct. 6-2019	The Cell
4	Oct. 13-2019	Biological Macromolecules
5	Oct. 20-2019	Biological Macromolecules
6	Oct. 27-2019	Enzymes
	3/11/2019 - 21/11/2019	MIDTERM EXAM
	Nov. 3-2019	
7	Nov. 10-2019	Physical Properties of The Cell
8	Nov. 17-2019	Metabolism
9	Nov. 24-2019	Cell Division (Mitosis)
10	Dec. 1-2019	Cell Division (Meiosis)
11	Dec. 8-2019	Plant Tissues
12	Dec. 15-2019	Animal Tissues
	5/1/2020 - 13/1/2020	FINAL EXAM
	Dec. 29-2019	

# 20. Topic Outline and Schedule:

# 21. Teaching Methods and Assignments:

## Development of ILOs is promoted through the following teaching and learning methods:

- Power point lectures, questions and discussions, videos, home works.
- Lab report fills after each lab.
- Assignments such as preparing of reports on topics related to the subject.
- Students are requested to present a power point presentation on a subject of his/her choice within the framework of the study material.
- Quizzes and evaluation of students.

#### 22. Evaluation Methods and Course Requirements:

# **Opportunities to demonstrate achievement of the ILOs are provided through the following** <u>assessment methods and requirements</u>:

Quizzes Home work / Reports Attendance and Participation in the class Mid Exam Final Exam

## 23. Course Policies:

## A- Attendance policies:

I strongly recommend you attend every lab. Missing any lab will put you at a distinct disadvantage when test taken. 2- Any student with three or more unexcused absences from lab can be legally dropped from the course.

#### B- Absences from exams and handing in assignments on time:

The only valid excuses for missing an exam are: death in the family, illness, or accident. In this case you must provide evidence of some kind and you must report me within 3 days.

#### C- Health and safety procedures:

Students who miss the exam due to illness or other excuse must notify me within the first week after the exam, so make up arrangements can be Made.

#### D- Honesty policy regarding cheating, plagiarism, misbehavior:

- 1. Students are not expected to talk in class while the instructor is lecturing
- 2. After two warning of taking or any other classroom disruption, the Student will be automatically removed from the class.
- 3. Any act of cheating, or academic misconduct is subject to penalties.
- 4. The minimum penalty for any students caught cheating will receive a zero on that test.

#### E- Grading policy:

Туре	Grading
Quizzes	20%
Reports	10%
Attendance/participation	5%
Midterm exam:	25%
Final Exam:	40%
Total	100%

**Exams:** The examinations will consist of any combination of Multiple choice, short answer, fill in the blank, matching, identification of figures or essay questions.

F- Available university services that support achievement in the course:

Library sources are available, internet, laboratory facilities.

## 24. Required equipment:

1. Lab top

2. Data show

3. white board

#### 25. References:

A- Required book (s), assigned reading and audio-visuals:

Textbook: Biology Laboratory Manual, Editor: Shtaywy Abdalla, 2009. B- Recommended books, materials, and media:

# 26. Additional information:

> <u>Copy to:</u> Head of Department Assistant Dean for Quality Assurance Course File