



The University of Jordan

Accreditation & Quality Assurance Centre

COURSE Syllabus

1	Course title	Practical Microbiology
2	Course number	5501332
3	Credit hours (theory, practical)	One credit hour
	Contact hours (theory, practical)	Three contact hours
4	Prerequisites/co requisites	5501331
5	Program title	Bachelor in Biological Sciences
6	Program code	
7	Awarding institution	The University of Jordan-Aqaba
8	Faculty	Faculty of Basic and Marine Sciences
9	Department	Biology
10	Level of course	Third 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	9/2019

16. Course Coordinator:

Dr. Zeinab H. Arabeyyat
Office number: 342
Office hours: 10:00 – 11:00 am (Sun, Tue, Thu)
Phone numbers: 032090450 ext. 36051
Email address: z.arabeyyat@ju.edu.jo

17. Other instructors:

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

N/O

18. Course Description:

As stated in the approved study plan.

Laboratory exercises will expose students to techniques that microbial researchers use on a daily basis, and students will isolate and culture marine bacteria from a variety of samples, identify dominant groups, and use applied molecular biology tools to analyze bacterial communities.

19. Course aims and outcomes:

<p>A- Aims:</p> <p>Upon successful completion of this course, students will be able to apply techniques that microbial researchers use on a daily basis, and students will isolate and culture marine bacteria from a variety of samples, identify dominant groups, and use applied molecular biology tools to analyze bacterial communities.</p> <p>B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to:</p> <p><u>Learning outcomes:</u></p> <ul style="list-style-type: none"> • Knowledge and understanding <p>At the end of this module, students will be able to:</p> <ul style="list-style-type: none"> - Define laboratory safety and aseptic techniques. - Measuring total count using haemocytometer. - Applying staining methods. - Preparing media and sterilizing methods. - Being able to make streak plates. - Being able to make spread plate. - Being able to differentiate sensitivity of antibiotics. - Able to write a laboratory scientific report. <ul style="list-style-type: none"> • Cognitive skills (thinking and analysis). <ul style="list-style-type: none"> - Students will be able to acquire, articulate, retain and apply specialized language and knowledge relevant to microbiology. - Students will acquire and demonstrate competency in laboratory safety and in routine and specialized microbiological laboratory skills applicable to microbiological research, including accurately reporting observations and analysis. - Students will communicate scientific concepts, experimental results and analytical arguments clearly and concisely, both verbally and in writing. - Students will demonstrate engagement in the Microbiology discipline through involvement in research or internship activities.

20. Topic Outline and Schedule:

Laboratory no.	Week	Topic
Lab 1	Week 2 (2/10/2019)	How to write a scientific report
Lab 2	Week 3 (9/10/2019)	An introduction to microbiology, aseptic technique and safety
Lab 3	Week 4 (16/10/2019)	Measurement of total count (using a haemocytometer)
Lab 4	Week 5 (23/10/2019)	Staining methods
Lab 5	Week 6 (30/10/2019)	Media, sterilisation and disinfection
Midterm Exam (6/11/2019)		
Lab 6	Week 8-9 (13-20/11/2019)	Making streak plates
Lab 7	Week 10-11 (27/11-4/12/2019)	Making spread plates
Lab 8	Week 12-13 (11-18/12/2019)	Testing sensitivity to antimicrobial substances
Final Exam (25/12/2019)		

21. Teaching Methods and Assignments:

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

- Lectures.
- Quizzes.
- Evaluation of students.
- Lab discussion.
- Experiments lab.
- Lab reports.

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

- Quizzes
- Lab reports.
- Midterm Exam
- Final Exam

23. Course Policies:**A- Attendance policies:**

- 1- I strongly recommend you attend every lecture. Missing any lecture will put you at a distinct disadvantage when test taken.
- 2- Any student with four 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 lecturer 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:

Type	Grading
Lab reports	30%
Quizzes	10%
Midterm exam:	20%
Final Exam:	40%
Total	100%

Exams: The examinations will consist of any combination of fill in the blank, true or false, short answer, matching,

identification and 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:

- Laboratory Manual & Workbook in MICROBIOLOGY, Applications to Patient Care, 9th Edition, Morello, Mizer, Granato, McGraw-Hill, 2008, ISBN: 978-0-0-299575-6.
- Hogg, S. (2005). Essential Microbiology. West Sussex: John Wiley and Sons. Chicago, 15th ed.
- Kumar, S. (2012). Textbook of Microbiology. Jaypee Brothers Medical Publishers (P) Ltd, 1st ed.

B- Recommended books, materials, and media:

N/A

26. Additional information:

N/A

Name of Course Coordinator: **Dr. Zeinab Arabeyyat** Signature: ----- Date: **15/09/2019**

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----