ATTACHMENT 2 (e)

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Course Specifications

BIOLOGY

PBIO 126

Course Specifications

Institution: : Majmaah University	***Date of Report:***
College/Department: Preparatory Year Deanship	

A. Course Identification and General Information

1. ***Course title and code:*** Biology PBIO 126
2. ***Credit hours:*** 3
3. ***Program(s) in which the course is offered:*** **Medicine and Medical Sciences**
4. ***Name of faculty member responsible for the course:*** Dr. Maher Obeidat
5. ***Level/year at which this course is offered:*** Level 2 / 1436-1437
6. ***Pre-requisites for this course:*** -
7. ***Co-requisites for this course:*** -
8. ***Location if not on main campus:*** Preparatory Year Building
9. ***Mode of Instruction (mark all that apply)***

a. Traditional classroom	*	What percentage?	100
b. Blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. Correspondence		What percentage?	
f. Other		What percentage?	

Comments:

B Objectives

1. ***What is the main purpose for this course?***

Biology will provide students with a solid foundation in the fundamental concepts and knowledge base of modern biology and help students develop the skills that are integral to the process of science. This course prepares students for their upper-level courses by emphasizing on the development of student's scientific process skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students explore biological science as a process, cell structure and function, cell types, organelles and macromolecules, enzymes, and an introduction to metabolism; comparison between catabolism and anabolism and studying cellular respiration as an example on catabolism. Students will also take the opportunity to understand the main concepts of cell division and cell cycle through comparison between mitosis and meiosis, the relation of meiosis to sexual reproduction.

2. Briefly describe any plans for developing and improving the course that are being implemented. • Using of educational videos • Participation of student in teaching procedures through presentations they prepare using different information sources, computer programs and modern facilities

C. Course Description (*Note: General description in the form to be used for the Bulletin or handbook should be attached*)

1. Topics to be Covered		
List of Topics	**No. of Weeks**	**Contact Hours**
Introduction to Biology	1	4
A tour of the cell; cell theory, cell types, structure and function of organelles	2	8
Membrane structure and function, tonicity, and transport mechanisms	2	8
The structure and function of macromolecules; carbohydrates, lipids, proteins, and nucleic acids	2	8
Metabolism; catabolism, anabolism and enzymes	3	12
Cellular respiration	2	8
The cell cycle and mitosis	2	8
Meiosis and sexual reproduction	1	4

2. Course components *(total contact hours and credits per semester):*						
	Lecture	Tutorial	Laboratory	Practical	Other:	Total
Contact Hours	30			30		60
Credit	30			15		45

3. Additional private study/learning hours expected for students per week.	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
1.0	**Knowledge**		
1.1	Introducing biology science and characteristics of living organisms	Discussion	Periodical tests
1.2	Studying prokaryotic and eukaryotic cell	Power point presentation	Discussions Assignments
1.3	Studying cell organelles and their functions, cell membrane and its rule in transport, cell chemistry	Power point presentation Educational videos	Oral questions during lessons
1.4	Studying enzymes	Power point presentation Discussion	Discussions
1.5	Metabolism and cellular respiration	Power point presentation Discussion	Oral questions during lessons
1.6	Cell division	Power point presentation Educational videos	Discussions Assignments
2.0	**Cognitive Skills**		
2.1	Identification of living and non-living organisms	Lectures	Periodical tests
2.2	Identification of prokaryotic and eukaryotic cells	Educational videos	Discussions
2.3	Comparison between different cell organelles and their functions	Practical activities	Evaluation of practical lessons performance
2.4	Comparison among cell macromolecules, their structure and functions	Practical activities	Evaluation of practical lessons performance
2.5	Comparison between catabolism and anabolism	Lectures	Discussions
2.6	Comparison between mitotic and meiotic cell division	Educational videos	Discussions
3.0	**Interpersonal Skills & Responsibility**		
3.1	Team-work inside lab	Discussion	Evaluation of team-work performance
3.2	Personal work inside lab	Presentations	Evaluation of personal work performance
3.3	Discussion groups during chapter reviews	Discussion	Evaluation of performance
3.4	Team-works presentations	Presentations	Observation

4.0	**Communication, Information Technology, Numerical**		
4.1	Ability of preparing a good presentation for other colleagues (collecting required information, preparing the report, preparing the presentation and discuss it with other colleagues).	Specify a particular point from the course for a small group of students to work on and prepare the presentation under supervision of the teacher	Evaluation of students in information collection, report preparation, presentation preparation and presentation show and discussion
5.0	**Psychomotor**		
5.1	Using the light microscope	Theoretical explanation	Evaluation of student performance inside the lab
5.2	Preparation of temporary slides and staining it	Practical application by the teacher	Practical test
5.3	Execution the required lab experiments for identification of biological molecules (carbohydrates , proteins and lipids)	Practical application by the students	Evaluation of performance

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task	***Week Due***	***Proportion of Total Assessment***
1	Attendance and participation	Weekly.	
2	Quizzes	6,10,12.	10%.
3	Practical test	15	10%
4	First midterm exam	7	20%
5	Second midterm exam	13.	20%
6	Final exam	17	40%

D. Student Academic Counseling and Support

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

E. Learning Resources

1. List Required Textbooks Reece J.B. (2013). Campbell Biology (10th edition). Benjamin Cummings
2. List Essential References Materials (Journals, Reports, etc.) Reece J.B. (2013). Campbell Biology (10th edition). Benjamin Cummings
3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) A. al-Huseiny and Demian " practical animal biology" part one
4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. Study guide for Campbell biology 10th ed. (CD)

F. Facilities Required

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) A well prepared lab
2. Computing resources (AV, data show, Smart Board, software, etc.)
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) Attached

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching Quizzes, Oral discussions, Term paper, Midterm and final exam
2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor Questionnaire for students through web site. Following up by evaluation unit (quality center) Self-evaluation procedure External auditing
3. Processes for Improvement of Teaching Evaluation and following up by department council Feedback by student questionnaire\ Student evaluation results during and by the end of the course

4. **Processes for Verifying Standards of Student Achievement** Statistical processes for students results Re-checking for answer sheets samples by department council Re-checking for answer sheets samples by external committee.
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. Re-checking for answer sheets samples by external committee

Faculty or Teaching Staff: Dr. Maher Obeidat

Signature: **Date Report Completed: 2/1/2016**

Received by: **Dean/Department Head:**

Signature: _____ Date: _____