

TISHK INTERNATIONAL UNIVERSITY
FACULTY OF EDUCATION
Department of PHYSICS EDUCATION,
2022-2023 Spring
Course Information for BIO 318 GENERAL BIOLOGY

Course Name:		GENERAL BIOLOGY				
Code	Regular Semester	Theoretical	Practical	Credits	ECTS	
BIO 318	6	3	-	3	3	
Name of Lecturer(s):		Abdulrahman Mahmoud Dogara				
Teaching Assistant:		Mamosta Shynyar				
Course Language:		English				
Course Type:		Non-area Elective				
Office Hours		Thursday 1500-1600				
Contact Email:		abdulrahman.mahmud@tiu.edu.iq				
		Tel:07511599240				
Teacher's academic profile:		Lecturer				
Course Objectives:		Introduction to the principles of biology for the science major. Topics include a history of biology, scientific method, general concepts and principles of biological molecules, cell structure and function, photosynthesis, cell respiration, cell reproduction, genetics, evolution and ecology. Laboratory designed to supplement General Biology I for science majors. Withdrawal from lecture mandates withdrawal from laboratory .				
Course Description (Course overview):		This course introduces the principles and concepts of biology. Emphasis is on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate the understanding of life at the molecular and cellular levels. Laboratory exercises reinforce lecture topics and include microscope techniques.				
COURSE CONTENT						
Week	Hour	Date	Topic			
1	3	29/1-2/2/2023	Introduction To Biology			
2	3	5-9/2/2023	The characteristics of living things			
3	3	12-16/2/2023	The characteristics of living things			
4	3	19-23/2/2023	Biological Organization			
5	3	26/2-2/3/2023	The Chemistry of Life			
6	3	5-9/3/2023	The Microuniverse			
7	3	12-16/3/2023	The structure of eukaryotic cells			
8	3	19-23/3/2023	Plant Cell			
9	3	26-30/3/2023	Animal cell			
10	3	2-6/4/2023	Midterm Exam			
11	3	9-13/4/2023	Genetics			
12	3	16-20/4/2023	Plant Classification			
13	3	23-27/4/2023	Animal classification			
14	3	30/4-4/5/2023	Plant anatomy			
15	3	7-11/5/2023	Ecology			
16	3	14-18/5/2023	Biotechnology			
17	3	21-25/5/2023	Revision			
18	3	28/5-1/6/2023	Final Exam			
19	3	4-8/6/2023	Final Exam			
COURSE/STUDENT LEARNING OUTCOMES						
1	To Introduce to the principles of biology for the science major.					
2	To learn basic concepts and principles of biology majors.					
3	To learn biology subjects for science courses of Secondary schools					
4	To make communication biology topics with real life.					
5	To learn basic biology laboratory skills and safety regulations					
COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES (Blank : no contribution, I: Introduction, P: Profecient, A: Advanced)						
Program Learning Outcomes					Cont.	
1	Discuss concepts and principles of physics.				I	

2	Conduct proper experiments safely and interpret the data in physics teaching physics.		
3	Use the results of recent education and subject-specific developmental research when designing, implementing and justifying their own practice as a teacher.		
4	Apply analytical and theoretical skills to model and solve physics problems.		
5	Identify students' misconceptions and deal with them in classroom.		
6	Prepare physics lessons with appropriate learning materials and teaching methods.		
7	Effectively assess, plan, teach, organize, and manage physics classrooms.		
8	Use appropriate methods and techniques to improve students' critical thinking, creative thinking and problem-solving skills in physics.		
9	Use required modern methods and techniques for student-centered teaching by considering individual and cultural differences of students.		
10	Effectively use a variety of teaching technologies and techniques and classroom strategies to foster student learning.		
11	Communicate effectively and work collaboratively within the context of a global society.		
12	Exhibit character and decision-making skills embodying professionalism and ethical behavior.		
Prerequisites (Course Reading List and References):	1. Keegstra K. Plant cell walls. Plant physiology. 2010;154(2):483-6. 2. Esau K. Plant anatomy: LWW; 1953. 3. Beck CB. An introduction to plant structure and development: plant anatomy for the twenty- first century: Cambridge University Press; 2010.		
Student's obligation (Special Requirements):	Follow Course book, come to class on time, Lab coat, no drink, no eating, no usage of cell mobile		
Course Book/Textbook:	1. Keegstra K. Plant cell walls. Plant physiology. 2010;154(2):483-6. 2. Esau K. Plant anatomy: LWW; 1953. 3. Beck CB. An introduction to plant structure and development: plant anatomy for the twenty- first century: Cambridge University Press; 2010. 4. Lopez F, Barclay G. Plant anatomy and physiology. Pharmacognosy: Elsevier; 2017. p. 45- 60		
Other Course Materials/References:	1. Keegstra K. Plant cell walls. Plant physiology. 2010;154(2):483-6. 2. Esau K. Plant anatomy: LWW; 1953. 3. Beck CB. An introduction to plant structure and development: plant anatomy for the twenty- first century: Cambridge University Press; 2010. 4. Lopez F, Barclay G. Plant anatomy and physiology. Pharmacognosy: Elsevier; 2017. p. 45- 60		
Teaching Methods (Forms of Teaching):	Lectures, Practical sessions, Exercises, Presentation, Seminar, Excursion, , ,		
COURSE EVALUATION CRITERIA			
Method	Quantity	Percentage (%)	
Participation	1	5	
Quiz	2	5	
Midterm Exam	1	20	
Laboratory	1	15	
Practical Exam	1	10	
Final Exam	1	40	
Total		100	
Examinations: Essay Questions, Fill in the Blanks, Short Answers, , ,			
Extra Notes:			
ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD			
Activities	Quantity	Workload Hours for 1 quantity*	Total Workload
Theoretical Hours	19	3	57
Practical Hours	19	0	0
Final Exam	1	9	9
Participation	1	5	5
Quiz	2	8	16
Midterm Exam	1	8	8
Laboratory	1		0
Practical Exam	1		0
Total Workload			95
ECTS Credit (Total workload/25)			4

Peer review

Signature:
Name:
Lecturer

Signature:
Name:
Head of Department

Signature:
Name:
Dean