AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Cell Biology								
Course Code	TBY320		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	3	Workload	76 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	The aim of the course is to teach the students the cell biology as it is based on molecular biology, molecular structure of cell and cell. The structure and function of the cell will be given as a whole.								
Course Content	Introduction to Cell Biology, Chemical Structure of Cell, Water, Proteins, Carbohydrates, Lipids, Nucleic Acids, Enzymes, DNA, Protein Synthesis, Substance Exchange, Protista, Mushrooms,								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Lec. Çiğdem YAMANER								

Assessment Methods and Criteria		
Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading	
1	Karol, S. Ayvalı, C. Suludere Z. Cell Biology, Meal Printing, ISBN 975-95520-1-9, 2000.
2	Rencüzoğulları E; cytology, Nobel yayın dağıtım ,ISBN 9786053207528, 2020.

Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to Cell Biology
2	Theoretical	General characteristics of cells
3	Theoretical	Chemical structure of cell, inorganic substances
4	Theoretical	Karbohydrates
5	Theoretical	Proteins, enzymes and lipits
6	Theoretical	Nücleic acids and Protein Synthesis
7	Theoretical	Cell surface coverage
8	Intermediate Exam	Exam
9	Theoretical	Cell skeleton
10	Theoretical	Mitochondria, chloroplast and peroxisome
11	Theoretical	Ribosomes and protein synthesis
12	Theoretical	Cellular transport and digestion
13	Theoretical	Mechanism of cell division, Cell cycle, mitosis
14	Theoretical	Meiosis
15	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Midterm Examination	1	2	1	3
Final Examination	1	2	1	3
			Total Workload (Hours)	76
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	To learn the concept of integration of cell biology and molecular biology
2	To understand cell organelles by taking into account the molecular organization of cells

3	To be able to comprehend protein structure and synthesis, properties of membranes and their roles in cellular functions, role of cell skeleton and its role in cellular functions.
4	To be able to discuss the relations between cell biology and other scientific fields such as genetics and biochemistry
5	To learn prokaryotic and eukaryotic cell organisms

Programme Outcomes *(Agricultural Biotechnology)*	
1	To be able to develop skills in identifying, modeling and solving problems in agricultural biotechnology
2	To be able to synthesize life and engineering sciences for the effective resource planning of agricultural biotechnology applications
3	To be able to interpret about living organisms structure, metabolic and physiological processes in order to propose biotechnological solutions to the agricultural problems
4	To be able to analyze genomic, metabolomic and proteomic information via bioinformatic tools.
5	To have the ability to analyze collected data and interpret the results.
6	To have the ability of individual working ability and to make independent decisions, to work in inter-disciplinary and interdisciplinary teamwork, to communicate by expressing their ideas orally and in writing, clearly and concisely
7	To have the awareness of professional liabilities and ethics
8	To be able to follow current national and international problems

Contribution of Learning Outcomes to Programme Outcomes *1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High*

	L1	L2	L3	L4	L5
P1	4	4	4	5	4
P2	3	4	4	5	4
P3	5	5	5	4	3
P4	5	4	5	5	4
P5	3	3	3	4	3
P6	4	2	2	3	2
P7	4	3	2	2	2
P8	2	2	2	2	2