

AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title	Applied Zoology						
Course Code TBY115 Couse Level First Cycle (Bachelor's Degree)							
ECTS Credit 4	Workload 100 (Hours)	100 (Hours) Theory 2 Practice 2 Lat		Laboratory	0		
Dejectives of the Course The aim of the course is to get the students acquainted with history of zoology, define of scientific branches in zoology; Chemistry of cell (inorganic and organic molecules); The cell: protoplasm, organeles, nucleus, cell division and protein synthesis; Organisation of living things: Hystlogy (epid tissue, connective tissue, muscular tissue, nervous tissue); reproduction: asexual, sexual; Classifie of animals				ic pithelia ifications			
Course Content History of zoology, define of scientific branches in zoology Chemistry of cell (inorganic and organic molecules); - general features of cell structures of cells: cell membrane, protoplasm, organeles: (endoplasmic reticulum, ribosome, mitokondrium, Golgi complex, lysosome, centrosome, vacuol), nucleus; prokaryotic and eukaryotic cells, The cell division, gametogenesis, protein synthesis. Reproduction, embryology Organisation of living things, tissues Classifications of animals, unicellula and multicellular organisms. Laboratuvar: Microscope and cell, divisions, samples of animal tissue ty				nic), ellular sue types.			
Work Placement	N/A						
Planned Learning Activities and Teaching Methods		Explanation (Presentation), Experiment, Discussion					
Name of Lecturer(s)							

Assessment	Methods	and	Criteria	
------------	---------	-----	----------	--

	Quantity Percentage (%
Final Examination 1 100	1 100

Recommended or Required Reading

1 Biology, Campbell, N.A., Reece, J.B., Benjamin Cummings- Pearson Education ISBN 0-8053-6624-5

Week	Weekly Detailed Cours	se Contents
1	Theoretical	History of zoology, define of Zoology, branches of zoology -Live-alive, animal-plant concepts
	Practice	sdfsd
2	Theoretical	Types of symetry in animals, axis, planes -The chemical structure of protoplasm
3	Theoretical	Protoplasm -Inorganic and organic compounds in protoplasm (carbohydrates, lipids, proteins, nucleotids and derivatives)
4	Theoretical	The physical state of protoplasm -Cell, prokaryotic and eukaryotic cells, -General morphology of cell
5	Theoretical	Cell membrane, structural features of organels within cytoplasm with light and electron microskop
6	Theoretical	Nucleus and structural features of the structures within nucleus with light and electron microskop –Chromosome formation -Giant chromosomes
7	Theoretical	The cell division, amitosis division Mitosis and meiosis divisions -The cell cycle
8	Theoretical	Gametogenesis -Protein synthesis in the cell
9	Theoretical	An overview
10	Theoretical	Asexual and sexual reproduction types
11	Theoretical	Embryology (Egg types, developing of the fertilized egg, or zygote)
12	Theoretical	Organisation of animals Tissues: Epithelial tissue
13	Theoretical	Types of connective tissue (Loose and dense connective tissues, adiposa, cartilage, bone and blood
14	Theoretical	Muscle and nerve tissues
15	Theoretical	Classifications of animals -Summary of animal systematic
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	2	42
Lecture - Practice	14	1	2	42
Assignment	1	3	1	4



				Course Information For
Final Examination	1	10	2	12
		Тс	otal Workload (Hours)	100
		[Total Workload (Hours) / 25*] = ECTS	4
*25 hour workload is accepted as 1 ECTS				

Learn	ing Outcomes
1	Learning of general biology II (Zoology) define of scientific branches in zoology
2	To understand chemistry of cell (inorganic and organic molecules)
3	To establish the link between prokaryotic ve eukaryotic cells
4	Associated with nucleus to the function of the cell organeles
5	To adapt organisation of living things to contemporary life
6	To question the link between tissues
7	Related to asexual and sexual reproduction evaluate the database and obtain information from to transfer as spoken or written

8 To establish connection between unicellular and multicellular organisms

Programme Outcomes (Agricultural Biotechnology)

1	Mathematics, science and Agricultural Engineering, adequate knowledge of the subjects specific to the discipline of Agricultural Biotechnology; ability to use theoretical and applied knowledge in these fields in complex engineering problems.
2	Agricultural Engineering ability to define, formulate and solve complex problems in the field of Agricultural Biotechnology, to choose and apply appropriate analysis and modeling methods for this purpose.
3	Agricultural Engineering ability to design a complex system, process, device or product related to the field of Agricultural Biotechnology, under realistic constraints and conditions, in other words, by considering the available possibilities and the current state of the field, and the ability to apply modern design methods for this purpose.
4	Agricultural Engineering ability to choose and use modern tools necessary for the analysis and solution of complex problems encountered in Agricultural Biotechnology applications, the ability to use information technologies effectively.
5	Agricultural Engineering ability to design, conduct experiments, collect data, analyze and interpret results for the examination of complex problems or discipline-specific research issues in the field of Agricultural Biotechnology.
6	Ability to work effectively in disciplinary and multi-disciplinary teams; individual study skills.
7	Ability to write effective reports in the field and to understand written reports, to prepare design and production reports, to make effective presentations, to take and give clear and understandable instructions.
8	Awareness of the necessity of lifelong learning; the ability to access information, follow developments in science and technology, and constantly renew oneself.
9	Knowledge of ethical principles, professional and ethical responsibility, and standards used in engineering practices.
10	Agricultural Engineering Information about applications in business life such as project management, risk management and change management in the field of Agricultural Biotechnology; awareness of entrepreneurship, innovation; information about sustainable development.
11	Agricultural Engineering Information about the effects of Agricultural Biotechnology applications on health, environment and safety in universal and social dimensions and the problems of the age reflected in the field of engineering; awareness of the legal consequences of engineering solutions.

