AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Evolution								
Course Code	ÇS309		Couse Level		Short Cycle (Associate's Degree)				
ECTS Credit	2	Workload	50 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	1. To inform about earth's formation and the formation of the lives on earth, also about Darwin's evolution theory and different opinions on this issue. 2. To be presented the factors that influence the formation of new species and the evidence of the evolutionary changes. 3. To inform about the issues that the works are done in the today's evolutionary genetics field how it affects / can affect.								
Course Content	Definition of the Evolution, historical development and change of this concept. Darwin's theory of evolution, the new synthesis theory. Inorganic and organic evolution. Evidences that are supporting to the evolution. Speciation and speciation models. Cultural evolution and human evolution.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Case Study, Individual Study								
Name of Lecturer(s)	Lec. Sevil ÖZCAN								

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

Recommended or Required Reading	
1	Evolution (2008) Douglas J. Futuyma (Trans. Aykut Kence, A. Nihat Bozcuk), Palme Publ.
2	Basic Rules of The Life Volume.1 / Part.1 (2004) Ali Demirsoy, Meteksan
3	Heredity and Evolution (2007) Ali Demirsoy, Meteksan

Week	Weekly Detailed Course Contents	
1	Theoretical	Definition of the evolution, and development and history of evolution concept.
2	Theoretical	Darwin's evolution theory and different opinions related to formation of the living organisms on earth.
3	Theoretical	Inorganic evolution, the opinions related to the formation of the solar system and Earth.
4	Theoretical	Organic evolution.
5	Theoretical	The crude material of evolution (mutation, recombination). The mechanisms that providing evolution (such as natural selection, selection based on the ability to reproduction, isolation, genetic drift).
6	Theoretical	The evidences that support to the evolution.
7	Theoretical	The evidences that support to the evolution.
8	Theoretical	Midterm
9	Theoretical	Models of the speciations.
10	Theoretical	Compliance, progressive evolution, parallel evolution, narrowing evolution. Pre-adaptation and some examples for important adaptation types.
11	Theoretical	Cladogenesis, Anagenesis and some species concepts. The situations that cause speciation by preventing the gene flowing.
12	Theoretical	In the context of the life- tree, monitoring the evolutionary path which is from the common ancestor of all living to Homo sapiens, and monitoring of the bifurcations due to evolution.
13	Theoretical	Evolution of the mitosis.
14	Theoretical	Cultural evolution.
15	Theoretical	The studies are done nowadays, and their importance for evolution

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Midterm Examination	1	10	1	11

Final Examination	1	10	1	11
			Total Workload (Hours)	50
			[Total Workload (Hours) / 25*] = **ECTS**	2
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes	
1	Knows that organic and inorganic evolution.
2	Knows that mutations can occur in living organisms depending on the living conditions, and consequently knows that evolutionary changes can occur.
3	Knows that different theories about the formation of the living organisms.
4	Knows the basic evolutionary concepts such as mutation, variation and modification.
5	Knows different views about the formation of living things on earth.

Programme Outcomes *(Medical Imaging Techniques)*	
1	To be able to get information the working principles of Radiology, Nuclear Medicine and Radiotherapy devices, and distinguish their components, use these devices in accordance with operating instructions.
2	To be able to perform the procedures in accordance with the examination of Radiology and Nuclear Medicine imaging .
3	To be able to apply the radiotherapy treatment, planned by radiation physicist with instruction of radiotherapist.
4	To be able to develop and perform the film printing of the images that obtained by imaging techniques of Radiology, Nuclear Medicine
5	To be able tıo evaluate the images that obtained by imaging techniques of Radiology, Nuclear Medicine in terms of radiographic quality and takes the necessary measures.
6	To be able to know the medical and radiologic terminology, and pronounce and use them correctly
7	To be able to take the necessary measures in accordance with the rules of Radiation safety and protection from radiation, and apply them.
8	To be able to distinguish the anatomical structures on images, obtained by the conventional and cross-sectional imaging techniques of Radiology, Nuclear medicine.
9	To be able to communicate well with patient, their family and the hospital staff.
10	To be able to move with own professional duties, powers and responsibilities of the consciousness and apply the rules of professional ethics.
11	To be able to adapt to a multi-disciplinary team work.
12	To be able to have a basic knowledge of human physiology.
13	To be able to distinguish anatomical structures.
14	To be able to establish a cause-and-effect relationship between events.
15	To be able to have the ability of analytical thinking and problem solving.
16	To be able to apply the basic principles of first aid.
17	It has basic knowledge about human anatomy
18	Understanding the basic concepts and principles of physics while providing, in the medical field and in particular medical imaging students better understand the issues involving technical vocational courses
19	OHS 'basic concepts; work accidents, occupational diseases, occupational physicians, occupational safety specialist, İSGB, OSGB, hazard classes, risk assessment, OHS employee representatives is
20	Have basic knowledge about basic medical practices and makes applications

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	1	1	1	1	1
P2	1	1	1	1	1
P3	1	1	1	1	1
P4	1	1	1	1	1
P5	1	1	1	1	1
P6	4	4	4	4	4
P7	2	2	2	2	2
P8	2	2	2	2	2
P9	1	1	1	1	1
P10	3	3	3	3	3
P11	4	4	4	4	4
P12	5	5	5	5	5

P13	5	5	5	5	5
P14	5	5	5	5	5
P15	5	5	5	5	5
P16	1	1	1	1	1
P17	5	5	5	5	5
P18	3	3	3	3	3
P19	3	3	3	3	3
P20	3	3	3	3	3