



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Forensic Genetics							
Course Code		TBY318		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	80 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course		The aim of this course is to teach the students how to obtain the biological evidence, DNA sources, possible ways to obtain DNA, polymorphic systems used in past and present, basic principles of population genetics, identification, affinity determination e.t.c.							
Course Content		Pure expression, assignment preparation, discussion and evaluation. Students are going to prepare assignments about the uses of DNA in forensic cases. These cases are going to be discussed in the course, so that they can assess their theological knowledge. By preparing their assessments, the students are going to scan scientific literature from internet and scientific journals							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Case Study					
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

Recommended or Required Reading

1	William Goodwin, Adrian Linacre, Sibte Hadi. An Introduction To Forensic Genetics (2007) Jhon Wiley Ltd.England, ISBN:978-0-470-01025-9
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Week	Weekly Detailed Course Contents	
1	Theoretical	Introduction to forensic genetics
2	Theoretical	DNA structure and the genome
3	Theoretical	Biological material – collection, characterization and storage
4	Theoretical	DNA extraction and quantification
6	Theoretical	The analysis of short tandem repeats
7	Theoretical	An overview
8	Theoretical	Assessment of STR profiles
9	Theoretical	Statistical interpretation of STR profiles
10	Theoretical	Evaluation and presentation of DNA evidence
11	Theoretical	Databases of DNA profiles
12	Theoretical	Kinship testing
13	Theoretical	Single nucleotide polymorphisms
14	Theoretical	Lineage markers
15	Theoretical	Non-human DNA typing
16	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Assignment	7	1	1	14
Midterm Examination	1	3	2	5
Final Examination	1	3	2	5
Total Workload (Hours)				80
[Total Workload (Hours) / 25*] = ECTS				3
*25 hour workload is accepted as 1 ECTS				



Learning Outcomes

1	The use of and application molecular biology techniques in forensic science
2	Crime scene investigation- the collection and transfer of biological evidence
3	Evaluation of biological evidence found at the crime scene and establish a connection between the suspect - victim.
4	Identification of biological evidence using DNA technologies and determination of paternity and kinship.
5	The importance of DNA banks In solving forensic cases

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	3
P2	4	3	3	5	3
P3	3	3	3	5	3
P4	4	2	2	5	2
P5	3	5	5	4	3
P6	5	5	5	3	4
P7	5	5	5	3	4
P8	5	5	5	3	4

