



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Cellular Research Techniques in Vitro II							
Course Code		TFZ624		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	4	Workload	100 ( <i>Hours</i> )	Theory	1	Practice	2	Laboratory	0
Objectives of the Course		Introduce knowledge skills about Cellular Research Techniques in Vitro. Present novel scientific data to participants.							
Course Content		Why cell culture? How should be designed the cell culture laboratory? Cell culture laboratory equipments and their use, aseptic methods, contamination, media preparation and primary cell culture methods.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Discussion, Individual Study					
Name of Lecturer(s)									

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	60

### Recommended or Required Reading

1	Guyton, Medical Physiology
2	All scientific data about the subject

Week	Weekly Detailed Course Contents	
1	Theoretical	Why cell culture 1
	Practice	Why cell culture 1 practice
	Preparation Work	Reading
2	Theoretical	Why cell culture 2
	Practice	Why cell culture 2 practice
	Preparation Work	Reading
3	Theoretical	Why cell culture 3
	Practice	Why cell culture 3 practice
	Preparation Work	Reading
4	Theoretical	How should be designed the cell culture laboratory 1
	Practice	How should be designed the cell culture laboratory 1 practice
	Preparation Work	Reading
5	Theoretical	How should be designed the cell culture laboratory 2
	Practice	How should be designed the cell culture laboratory 2 practice
	Preparation Work	Reading
6	Theoretical	How should be designed the cell culture laboratory 3
	Practice	How should be designed the cell culture laboratory 3
	Preparation Work	Reading
7	Intermediate Exam	Midterm Exam
8	Theoretical	Cell culture laboratory equipments and their use 1
	Practice	Cell culture laboratory equipments and their use 1 practice
	Preparation Work	Reading
9	Theoretical	Cell culture laboratory equipments and their use 2
	Practice	Cell culture laboratory equipments and their use 2 practice
	Preparation Work	Reading
10	Theoretical	aseptic methods



10	Practice	aseptic methods practice
	Preparation Work	Reading
11	Theoretical	contamination
	Practice	contamination practice
	Preparation Work	Reading
12	Theoretical	media preparation
	Practice	media preparation practice
	Preparation Work	Reading
13	Theoretical	primary cell culture methods
	Practice	primary cell culture methods practice
	Preparation Work	Reading
14	Final Exam	Final exam

### Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	1	1	28
Lecture - Practice	14	1	2	42
Individual Work	14	2	0	28
Midterm Examination	1	0	1	1
Final Examination	1	0	1	1
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

\*25 hour workload is accepted as 1 ECTS

### Learning Outcomes

1	To be able to recognize the importance of in vitro cellular research methods
2	To be able to evaluate the relationship between other systems
3	To be able to investigate physiopathological symptoms about the subject
4	Interpret general principals about the subject
5	

### Programme Outcomes (Physiology (Medical) Doctorate)

1	Has a deep and broad knowledge about the field and the interdisciplinary area related with the field through the achievements gained in undergraduate and professional levels.
2	Has the knowledge to create original ideas, analyze them and develop definition/product/diagnosis methods by using the knowledge gained in undergraduate and/or professional experience, when needed.
3	To learn the laws and regulations both national and international in the field of physiology.
4	To gain ability to apply the principles and fundamentals of scientific ethical rules.
5	Implements and defends institutional and practical information and abilities in accordance with the needs of the country and the world, and changes when necessary.

### 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	5	5	5	5	4
P2	5	4	5	4	4
P3	5	3	4	4	4
P4	4	4	5	4	4
P5	5	5	3	4	4

