



AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF HEALTH SCIENCES
STEM CELL AND REGENERATIVE MEDICINE (INTERDISCIPLINARY)
STEM CELL AND REGENERATIVE MEDICINE INTERDISCIPLINARY
STEM CELL AND REGENERATIVE MEDICINE INTERDISCIPLINARY MASTER
COURSE INFORMATION FORM

Course Title	Stem Cells in Tissues and Organs								
Course Code	KHÜ527		Course Level		Second Cycle (Master's Degree)				
ECTS Credit	6	Workload	153 (Hours)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Giving information about stem cells and diseases in tissues and organs								
Course Content	Stem cells from fetal and umbilical cord, stem cells from amnion and placenta, stem cells in teeth, adipose tissue, stem cells in nervous system, stem cells in digestive system and diabetes, stem cells in muscle, skeleton, heart and vascular system, stem cells in skin, genital stem cells in the system will be explained.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Demonstration, Discussion, Individual Study								
Name of Lecturer(s)									

Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	20
Final Examination	1	60
Assignment	1	20

Recommended or Required Reading

1	Sell S, Stem Cells Handbook, Humana Press, second edition, 2013
2	Alberio R, Epiblast Stem Cells, Humana Press, Methods and protocols, Wiley Blackwell, 2013
3	Regad T, Sayers TJ, Rees R, Principle of Stem Cell Biology and Cancer,
4	Healy L, Ruban L, Atlas of Human Pluripotent Stem Cells in Culture, Springer, 2015
5	Rich IN, Stem Cell Protocols, Humana Press, 2015

Week	Weekly Detailed Course Contents	
1	Theoretical	Course description and introduction
2	Theoretical	Fetal and umbilical cord-derived stem cells
3	Theoretical	Amniotic and placenta-derived stem cells
4	Theoretical	Stem cells in the tooth
5	Theoretical	Stem cells in adipose tissue
6	Theoretical	Stem cells in the nervous system
7	Theoretical	Stem cells in pancreas and its relationship with diabetes
8	Intermediate Exam	Mid-term exam
9	Theoretical	Stem cells in the liver
10	Theoretical	Stem cells in musculoskeletal system
11	Theoretical	Stem cells in the cardiovascular system
12	Theoretical	Stem cells in the skin
13	Theoretical	Stem cells in the male genital system
14	Theoretical	Stem cells in the female genital system
15	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	1	2	39
Assignment	2	18	1	38
Midterm Examination	1	24	2	26



Final Examination	1	48	2	50
			Total Workload (Hours)	153
			[Total Workload (Hours) / 25*] = ECTS	6
*25 hour workload is accepted as 1 ECTS				

Learning Outcomes

1	Understands the properties of stem cells in tissues
2	Learn the properties of stem cells in organs
3	Understands the differences between stem cells in tissues and organs and examines the relationship with diseases
4	Have knowledge about stem cells in male and female genital system
5	Understand the clinical importance of stem cells in tissues and organs

Programme Outcomes (*Stem Cell and Regenerative Medicine Interdisciplinary Master*)

1	To have comprehensive and in-depth knowledge of Stem Cell and Regenerative Medicine
2	To have information about stem cell production and characterization
3	To learn stem cell sources, stem cell types and their differences
4	To understand the molecular and genetic structure of stem cells
5	To be able to learn and make stem cell culture methods
6	To be able to adapt the knowledge in the field of stem cells to research in line with current developments
7	To be able to use molecular laboratory methods used in stem cell research
8	Learning in vitro disease models and in vivo experiments related to stem cells
9	To have knowledge about stem cell therapies and clinical use
10	Conduct independent research in accordance with the principles of research and publication ethics

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	4	4
P2	4	4			
P3	5	5	4	4	4
P4	3	3	3	3	3
P6	3	3	4	4	4
P8			2	2	2
P9			3	3	3

