



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Systems Biology							
Course Code		TIB636		Course Level		Third Cycle (Doctorate Degree)			
ECTS Credit	5	Workload	122 (<i>Hours</i>)	Theory	2	Practice	0	Laboratory	0
Objectives of the Course									
Course Content									
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation)					
Name of Lecturer(s)		Prof. Gizem DÖNMEZ YALÇIN							

Assessment Methods and Criteria

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

Recommended or Required Reading

1	1. A first course in Systems Biology – Eberhard Voit - Garland Science; 1 edition (March 28, 2012)
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Week	Weekly Detailed Course Contents	
1	Theoretical	Biological systems
2	Theoretical	Introduction to mathematical modelling I
3	Theoretical	Introduction to mathematical modelling II
4	Theoretical	Mathematical modelling of biological systems
5	Theoretical	Parameter estimation
6	Theoretical	Gene systems
7	Theoretical	Protein systems
8	Intermediate Exam	Midterm Exam
9	Theoretical	Metabolic systems
10	Theoretical	Signal transduction systems
11	Theoretical	Population systems
12	Theoretical	Discussing example project – Yeast cell
13	Theoretical	Physiological modelling example - Heart
14	Theoretical	System biology in drug development
15	Final Exam	Final Exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	13	6	2	104
Midterm Examination	1	6	2	8
Final Examination	1	8	2	10
Total Workload (Hours)				122
[Total Workload (Hours) / 25*] = ECTS				5

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	
2	
3	
4	



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Programme Outcomes (*Medical Biology Doctorate*)

1	To acquire fundamental knowledge on medical biology field
2	To gain expertise on molecular biology techniques
3	To utilize molecular biology techniques
4	To be able to construct and conduct a research project
5	To be able to follow and interpret scientific advancements

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	3	3	2	2
P2	2	4	4	4	4
P3	2	3	3	3	3
P4	3	3	3	3	3
P5	3	3	4	4	4

