BIOINFORMATIC APPLICATIONS

1	Course Title:	BIOINFORMATIC APPLICATIONS
2	Course Code:	MBG3104
3	Type of Course:	Optional
4	Level of Course:	First Cycle
5	Year of Study:	3
6	Semester:	6
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	3.00
9	Practice (hour/week):	0.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Doç. Dr. FİGEN ERSOY
15	Course Lecturers:	yok
16	Contact information of the Course Coordinator:	e-posta: figen@uludag.edu.tr 0 224 29 41776 Fen-Edebiyat Fakültesi, Moleküler Biyoloji ve Genetik Bölümü, Görükle Kampüsü, 16059 Bursa
17	Website:	
18	Objective of the Course:	The purpose of this course is to teach advanced techniques and concepts used in molecular biology today. Thus, a new perspective can be developed by the student so that he can cope with the problems and be successful in his graduate study.
19	Contribution of the Course to Professional Development:	Contribution of the course to professional development is to teach some techniques in Molecular Biology.
20	Learning Outcomes:	
	1	Analyse and solve problems using an integrated multidisciplinary approach.
	2	Integrate and evaluate critically information from various sources.
	3	Plan, conduct and write a programme of original research.
	4	Use modern information and communications technologies.
	5	Critically evaluate scientific publications.
	6	Communicate effectively through oral presentations
	7	Devise functional genomics methodologies for solving problems
	8	Transfer techniques and solutions from one discipline to another.
	9	
	10	

21	Course Content:
	Course Content:

Week	Theoretical	Practice
1	Introduction	
2	primer design	
3	RE mapping	
4	signal peptide search	
5	3D protein programs	
6	miRNA, biochemical pathways	
7	NCBI	
8	BLAST	
9	protein localization, pspired	
10	yeast genome	
11	ihop, RNA folding	
12	transmembrane proteins	
13	protein data bank	
14	Paper presentation 9&10 related to microarray	

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	3.00	42.00
Practicals/Labs	0	0.00	0.00
Self study and preperation	1	15.00	15.00
Homeworks	3	15.00	45.00
Projects	0	0.00	0.00
Field Studies	0	0.00	0.00
Midterm exams	1	20.00	20.00
Others	0	0.00	0.00
Final Exams	1	30.00	30.00
Total Work Load			172.00
Total work load/ 30 hr			5.07
ECTS Credit of the Course			5.00

23	Assesment		
	Midterm Exam	1	40.00
	Home work-project	0	0.00
	Total	2	100.00
	Success Grade		
	Measurement and Evaluation Techniques Used in the Course		

24	ECTS / WORK LOAD TABLE

25	CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS															
	PQ1	**PQ2**	**PQ3**	**PQ4**	**PQ5**	**PQ6**	**PQ7**	**PQ8**	**PQ9**	**PQ10**	**PQ11**	**PQ12**	**PQ13**	**PQ14**	**PQ15**	**PQ16**
ÖK1	5	4	4	4	5	4	4	5	4	5	0	0	0	0	0	0
ÖK2	4	5	4	5	4	5	4	4	4	4	0	0	0	0	0	0
ÖK3	3	4	4	5	4	3	5	4	4	4	0	0	0	0	0	0

ÖK4	4	4	4	5	4	3	4	4	3	5	0	0	0	0	0	0
ÖK5	4	5	4	4	4	4	4	4	5	4	0	0	0	0	0	0
ÖK6	4	5	4	5	4	4	4	4	5	4	0	0	0	0	0	0
ÖK7	5	4	4	4	5	4	4	4	5	4	0	0	0	0	0	0
ÖK8	5	4	4	4	5	4	5	4	4	5	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	**1 very low**	**2 low**	**3 Medium**	**4 High**	**5 Very High**