MOLECULER BIOLOGY OF BIOTIC STRESS TOLERANCE IN PLANTS

1	Course Title:	MOLECULER BIOLOGY OF BIOTIC STRESS TOLERANCE IN PLANTS	
2	Course Code:	BIO6419	
3	Type of Course:	Optional	
4	Level of Course:	Third Cycle	
5	Year of Study:	1	
6	Semester:	1	
7	ECTS Credits Allocated:	6.00	
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:	Dr. Ögr. Üyesi FİGEN ERSOY	
15	Course Lecturers:		
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 aim of the course is to teach molecular biology of biotic stress tolerance in plants. Objective of the course is to teach new techniques and to expand the student's experimental point of view.	
19	Contribution of the Course to Professional Development:		
20	Learning Outcomes:		
		1	Analyse and solve plant science and biotechnology 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 experimental methodologies for plant science and biotechnology problems
		8	Transfer techniques and solutions from one discipline to another.
		9	
		10	

21	Course Content:

Course Content:

Week	Theoretical	Practice
1	Introduction	
2	Defense mechanism in plants	
3	Viral stress	
4	Bacterial stress	
5	Fungal stress	
6	nematodes	
7	R genes	
8	R genes (cont.)	
9	Signal transduction	
10	Paper presentation 1&2	
11	Paper presentation 3&4	
12	Paper presentation 5&6	
13	Paper presentation 7&8	
14	Paper presentation 9&10	

23	Textbooks, References and/or Other Current articles

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	20.00	60.00
Projects	0	0.00	0.00
Assesment			
Field Studies	0	0.00	0.00
Midterm exams	1	25.00	25.00
Others	0	0.00	0.00
Final Exams	1	40.00	40.00
Total Work Load			182.00
ECTS Credit of the Course			6.00

Contribution of Term (Year) Learning Activities to Success Grade	40.00
Contribution of Final Exam to Success Grade	60.00
Total	100.00
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	5	4	4	5	5	5	4	0	0	0	0	0	0	0

ÖK2	5	5	5	5	4	4	4	5	5	0	0	0	0	0	0	0
ÖK3	4	5	5	4	5	5	5	5	5	0	0	0	0	0	0	0
ÖK4	4	5	4	0	5	5	4	5	4	0	0	0	0	0	0	0
ÖK5	5	5	4	4	5	5	5	4	4	0	0	0	0	0	0	0
ÖK6	5	4	5	4	5	5	4	4	4	0	0	0	0	0	0	0
ÖK7	5	5	4	5	4	4	4	4	5	0	0	0	0	0	0	0
ÖK8	5	4	5	4	5	5	5	5	5	0	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**