AYDIN ADNAN MENDERES UNIVERSITY
COURSE INFORMATION FORM

Course Title	Advenced Techniques in Plant Breeding								
Course Code	TBY326		Couse Level	First Cycle (Bachelor's Degree)					
ECTS Credit	3	Workload	76 *(Hours)*	Theory	2	Practice	0	Laboratory	0
Objectives of the Course	Students learn private and modern techniques applied in plant breeding								
Course Content	General methods of plant breeding , breeding methods used in self- pollinating plants, breeding methods used in cross-pollinated plants , and molecularly breeding methods in self and cross pollinated plants and applied techniques								
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	70

Recommended or Required Reading	
1	Lecture Notes
2	Bitki Islahı ve Genetik, Mustafa Oğlakçı ve İskender Tiryaki, Akademisyen Kitabevi

Week	Weekly Detailed Course Contents	
1	Theoretical	Crop production and plant breeding
2	Theoretical	The historical development of plant breeding
3	Theoretical	Reproduction in plants
4	Theoretical	Reproduction in plants (Continuation)
5	Theoretical	Breeding methods in autogam I
7	Theoretical	Breeding methods in autogam II
8	Intermediate Exam	Midterm exam
9	Theoretical	Breeding methods in allogamy I
10	Theoretical	Breeding methods in allogamy II
11	Theoretical	Biotechnological methods used in plant breeding
12	Theoretical	Biotechnological methods are used in monocotyledonous plants
13	Theoretical	Biotechnological methods are used in dicotyledonous plants
14	Theoretical	Molecular Techniques used in Plant Breeding I
15	Theoretical	Molecular Techniques used in Plant Breeding II
16	Final Exam	Final exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	3	2	70
Midterm Examination	1	2	1	3
Final Examination	1	2	1	3
			Total Workload (Hours)	76
			[Total Workload (Hours) / 25*] = **ECTS**	3
**25 hour workload is accepted as 1 ECTS*				

Learning Outcomes	
1	Have knowledge about classical plant breeding methods
2	Have knowledge molecular techniques using in plant breeding
3	Students learn the private methods using in plant breeding

4	Have an idea about how to limit the breeding process by introducing biotechnological processes
5	Have an idea about plant tissue culture techniques

Programme Outcomes *(Agricultural Biotechnology)*	
1	To be able to develop skills in identifying, modeling and solving problems in agricultural biotechnology
2	To be able to synthesize life and engineering sciences for the effective resource planning of agricultural biotechnology applications
3	To be able to interpret about living organisms structure, metabolic and physiological processes in order to propose biotechnological solutions to the agricultural problems
4	To be able to analyze genomic, metabolomic and proteomic information via bioinformatic tools.
5	To have the ability to analyze collected data and interpret the results.
6	To have the ability of individual working ability and to make independent decisions, to work in inter-disciplinary and interdisciplinary teamwork, to communicate by expressing their ideas orally and in writing, clearly and concisely
7	To have the awareness of professional liabilities and ethics
8	To be able to follow current national and international problems

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	2	4	4	4	4
P2	2	2	2	4	4
P3	2	5	5	4	4
P4	2	2	2	4	4
P5	2	4	4	4	4
P6	2	3	3	4	4
P7	3	3	3	4	4
P8	3	1	1	4	4