



## AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Seed Science							
Course Code		TB408		Course Level		First Cycle (Bachelor's Degree)			
ECTS Credit	3	Workload	75 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		The concept of seed, its production techniques, technology, and quality, adoption of basic principles on legislation.							
Course Content		The concept of seed, and importance, ecological factors in seed production, agronomic operations of seed production, seed production techniques for field crops, seed technology, applications to improve quality for seeds and control criteria.							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Demonstration, Discussion, Individual Study					
Name of Lecturer(s)		Prof. Aydın ÜNAY							

### Assessment Methods and Criteria

Method	Quantity	Percentage (%)
Midterm Examination	1	40
Final Examination	1	70

### Recommended or Required Reading

1	Şehirli, S., 1997. Tohumluk ve Teknolojisi Fakülteler Matbaası, 422s
2	Ed. Eser, B., Saygılı, H., Gökçöl, A., İlker, E., 2005. Tohum Bilimi ve Teknolojisi Cilt I
3	Ed. Eser, B., Saygılı, H., Gökçöl, A., İlker, E., 2005. Tohum Bilimi ve Teknolojisi Cilt II
4	Ed. Abay, C., Gökçöl, A., İlker, E., Türkekul, B., Gümüş, M., 2002. Türkiye I. Tohumculuk Kongresi
5	Farklı Kaynaklardan Derlenmiş Sunumlar ve Ders Notları İnternet Kaynakları

Week	Weekly Detailed Course Contents	
1	Theoretical	Reproduction in plants, the concept of generative and vegetative seed
	Practice	literature review
2	Theoretical	Seed formation, accumulation of nutrients, distribution of seeds
	Practice	introduction of plant ve seed
3	Theoretical	Seed morphology and physiology
	Practice	introduction of plant ve seed
4	Theoretical	Seed germination and dormancy
	Practice	introduction of plant ve seed
5	Theoretical	Ecological factors in seed production
	Practice	literature review
6	Theoretical	Agronomic operations in seed production
	Practice	literature review
7	Theoretical	Seed production techniques in field crops (Cereals and Grain Legumes)
	Practice	presentation of instrument equipment
8	Theoretical	Seed production techniques in field crops (Industrial Crops and Forage Crops)
	Practice	introduction of plant ve seed
9	Intermediate Exam	Midterm exam
10	Theoretical	Drying of seeds
	Practice	Examination of seed structure
11	Theoretical	Processing of seed
	Practice	survey in the research and application farm
12	Theoretical	Storage of seeds
	Practice	literature review
13	Theoretical	Applications for quality improve in seeds
	Practice	literature review



14	Theoretical	Criteria for quality control in seeds
	Practice	literature review
15	Theoretical	Seed legislation
	Practice	literature review
16	Final Exam	Final exam

**Workload Calculation**

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	0	2	28
Lecture - Practice	14	0	2	28
Midterm Examination	1	7	1	8
Final Examination	1	10	1	11
Total Workload (Hours)				75
[Total Workload (Hours) / 25*] = ECTS				3

\*25 hour workload is accepted as 1 ECTS

**Learning Outcomes**

1	To be able to comprehend the difference between seed and other production materials
2	To be able to perceive the importance of ecological factors in the production of seed
3	To be able to distinguish differences of the agronomic process between seed production with the normal production
4	To be able to grasp the techniques of seed production for field crops and its transfer of practice
5	To be able to find out about seed technology
6	To be able to make quality improvement practices of the seeds
7	To be able to follow developments related legislation for seeds

**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	L6	L7
P1	3	4	3	2	3	5	2
P2	4	4	4	3	4	4	3
P3	2	3	4	4	3	3	3
P4	4	3	3	4	3	3	3
P5	5	3	5	3	3	3	3
P6	4	3	4	4	3	5	2
P7	3	3	3	5	2	2	2
P8	4	3	3	5	4	4	2

