



AYDIN ADNAN MENDERES UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
FIELD CROPS
FIELD CROPS
FIELD CROPS MASTER
COURSE INFORMATION FORM

Course Title	Drug Plants								
Course Code	ZTB515	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	205 (Hours)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course	To definition secondary compounds and chemical analysis methods of drug plants with some important plant growing techniques								
Course Content	The history, uses and economic importance of drug plants, the concept of secondary metabolites (alkaloids, glycosides, flavonoids, saponins, mucilage), definition of secondary metabolites, formation, utilization and analysis methods, the general introduction of important drug plants, cultivation and utilization.								
Work Placement	N/A								
Planned Learning Activities and Teaching Methods	Explanation (Presentation), Discussion, Project Based Study, Individual Study								
Name of Lecturer(s)	Prof. Olcay ARABACI								

Assessment Methods and Criteria

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

Recommended or Required Reading

1	1.To understand the importance and economics of drug plants
2	2. Acquiring information about the chemical properties of drug plants
3	3. Perceiving the general principles of growing with the morphological characteristics of some drug plants
4	4.Learning of suitable to industrial crops for the use of pharmaceutical active components of plants
5	5. Supply of plant material for the production, cultivation, drug preparation, the ability to apply learning and development of marketing processes.

Week Weekly Detailed Course Contents

Week	Weekly Detailed Course Contents	
1	Theoretical	The history, importance and uses of drug plants
	Preparation Work	Literature review
2	Theoretical	The economic importance of drug plants
	Preparation Work	Literature review
3	Theoretical	Definition of secondary metabolites (alkaloid, glycoside, flavonoid, etc.) of drug plants
	Preparation Work	Literature review
4	Theoretical	Definition, classification and metabolism of alkaloids
	Preparation Work	Literature review
5	Theoretical	Presentation of some plants contain alkaloids; botany, cultivation and utilization of Atropa belladonna
	Preparation Work	Literature review
6	Theoretical	Botany, cultivation and utilization of Datura stramonium and D. metel
	Preparation Work	Literature review
7	Theoretical	Botany, cultivation and utilization of Hyoscyamus niger and Aconitum napellus
	Preparation Work	Literature review
8	Intermediate Exam	Midterm Exam
9	Theoretical	Botany, cultivation and utilization of Hydrastis canadensis and Withania somnifera
	Preparation Work	Literature review
10	Theoretical	The history, importance and uses of drug plants
	Preparation Work	Literature review
11	Theoretical	The definition, classification and metabolism of glycosides
	Preparation Work	Literature review



12	Theoretical	Presentation of some plants contain glycosides, botany, cultivation and utilization of <i>Digitalis lanata</i> and <i>D. purpurea</i>
	Preparation Work	Literature review
13	Theoretical	Definition, classification, and metabolism of flavonoids and other metabolites
	Preparation Work	Literature review
14	Theoretical	Botany, cultivation and utilization of <i>Silybum marianum</i>
	Preparation Work	Literature review
15	Theoretical	Term project presentations
	Preparation Work	Literature review
16	Final Exam	Final Exam

Workload Calculation				
Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	2	56
Lecture - Practice	14	2	2	56
Term Project	2	20	1	42
Laboratory	2	5	2	14
Midterm Examination	1	15	1	16
Final Examination	1	20	1	21
Total Workload (Hours)				205
[Total Workload (Hours) / 25*] = ECTS				8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes	
1	To be able to comprehend the importance and economics of drug plants
2	To be able to acquire the information of the chemical properties of drug plants
3	To be able to perceive the general principles of growing with the morphological characteristics of some drug plants
4	To be able to comprehend suitable to industrial crops for the use of pharmaceutical active components of plants
5	To be able to comprehend the plant material supplies for the production, cultivation, drug preparation, and the development of marketing processes

Programme Outcomes (Field Crops Master)	
1	To be able to improve and deepen the level of expertise in field crops on the basis of the departments licenses qualifications.
2	To be able to recognize the subjects related to field crops, to be able to solve these and make interpretation.
3	To be able to have the skills of acting independently, to have power to decide and to create.
4	To be able to work in teams between departments
5	To be able to give briefing about latest information of Field Crops in written, oral and visual ways.
6	To be able to take responsibility for developing the new approaches and to formulate a solution facing unforeseen complex situations of applications,
7	To be able to defend the original opinions in both Turkish and in foreign languages by using these languages and communicating effectively.
8	To be able to contribute to science by producing knowledge for the aim of improving quality, efficiency and sustainability
9	To be able to apply breeding methods in order to improve new varieties for Field Crops.
10	To be able to maintain and select the appropriate statistical methods within the framework of the study, evaluation of scientific ethics; to convert the results into a report/dissertation and to offer them by producing scientific publications.

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



P9	5	5	3	5	4
P10	3	3	3	3	3

