



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

Course Title	Standardization of Cereals and Legumes								
Course Code	ZTB529	Course Level			Second Cycle (Master's Degree)				
ECTS Credit	8	Workload	200 (Hours)	Theory	3	Practice	0	Laboratory	0
Objectives of the Course	The aim of this study; to provide information of cereals and grain legumes standardization. Moreover, introduction of quality, standards, standardization and fundamental analysis methods is also targeted. Determining to national and international standards organization and their tasks. It is determined about cereals and grain legumes standards which used on seed and industrial matters.								
Course Content	Quality, standardization and standard definition, standardization and quality relationship, the benefits of standardization purposes and principles of standardization, TSE and ISO topics are defined. Moreover the aim of this course is also determined about information of cereals and grain legumes standardization which are used as seed and industrial (bread, biscuits, malt, feed, direct consumption, oil, nuts, starch, canned etc.) materials.								
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	60

Recommended or Required Reading	
1	Seki, S. 1990. Field Crops in Standardization, Quality and Storage
2	Seki, S., 1986. Quality of Field Crops, standardization and storage. City, N. L.
3	N.L., 1978. Technology of Cereals.
4	World Oilseed (chemistry, Technology and Utilization). Boumans, G., 1985. Grain Handling and Storage.
5	Yilmaz, N., 2010. Armstrong Standardization and Storage in Field Crops Lecture notes
6	N. Yilmaz, G., and Montenegro, Y., 1999. Standardization and Storage in Field Crops. Gaziosmanpasa University, Faculty Publication No: 13, Lecture Notes Series No. 7, Tokat.

Week	Weekly Detailed Course Contents	
1	Theoretical	What is the definition of standard and standardization
	Preparation Work	Review of related issues with support of active education
2	Theoretical	Principles and benefits of standardization
	Preparation Work	Review of related issues with support of active education
3	Theoretical	TSE organization, functions, standards preparation and what is ISO?
	Preparation Work	Review of related issues with support of active education
4	Theoretical	The definition of quality and quality criteria
	Preparation Work	Review of related issues with support of active education
5	Theoretical	Effective factors on quality
	Preparation Work	Review of related issues with support of active education
6	Theoretical	Determination of standards in cereal seed
	Preparation Work	Review of related issues with support of active education
7	Theoretical	Determination of standards of cereals in use the industrial (bread, biscuits, malt, feed, direct consumption, oil, nuts, starch, canned etc.) materials
	Preparation Work	Review of related issues with support of active education
8	Theoretical	Midterm exam
9	Theoretical	Determination of standards of cereals in use the industrial (bread, biscuits, malt, feed, direct consumption, oil, nuts, starch, canned etc.) materials
	Preparation Work	Review of related issues with support of active education
10	Theoretical	Determination of standards of cereals in use the industrial (bread, biscuits, malt, feed, direct consumption, oil, nuts, starch, canned etc.) materials



10	Preparation Work	Review of related issues with support of active education
11	Theoretical	Determination of standards of cereals in use the industrial (bread, biscuits, malt, feed, direct consumption, oil, nuts, starch, canned etc.) materials
	Preparation Work	Review of related issues with support of active education
12	Theoretical	Determination of standards of legumes in use of seeds
	Preparation Work	Review of related issues with support of active education
13	Theoretical	Determination of standards of legumes in use of industrial (canning and freezing and direct consumption)
	Preparation Work	Review of related issues with support of active education
14	Theoretical	Determination of standards of legumes in use of industrial (canning and freezing and direct consumption)
	Preparation Work	Review of related issues with support of active education
15	Theoretical	A new method used in our country for storing of legumes (nitrogen gas)
	Preparation Work	Review of related issues with support of active education
16	Final Exam	Final exam

Workload Calculation

Activity	Quantity	Preparation	Duration	Total Workload
Lecture - Theory	14	2	3	70
Assignment	4	0	20	80
Term Project	1	0	30	30
Midterm Examination	1	8	1	9
Final Examination	1	10	1	11
Total Workload (Hours)				200
[Total Workload (Hours) / 25*] = ECTS				8

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To understand TSE and ISO terms
2	To have knowledge about obtain appropriate product in accordance with national and international standards and codex's
3	To learn the technical principles of standardization
4	To learn standards of cereals in use the industrial
5	To learn standards of cereals in use the seeds
6	To learn standards of legumes in use the industrial and seeds

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	L6
P1	5	5	5	5	5	5
P2	5	5	5	5	5	5
P3	5	5	5	5	5	5
P4	5	5	5	5	5	5



P5	5	5	5	5	5	5
P6	5	5	5	5	5	5
P7	5	5	5	5	5	5
P8	5	5	5	5	5	5
P9	5	5	5	5	5	5
P10	5	5	5	5	5	5

