



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

Course Title		Fruit Juice Technology							
Course Code		MSI205		Course Level		Short Cycle (Associate's Degree)			
ECTS Credit	4	Workload	100 (<i>Hours</i>)	Theory	2	Practice	2	Laboratory	0
Objectives of the Course		To learn the fundamentals of technological production of fruit juices and to be able to analyze the production quality							
Course Content		Pretreatment applied to fruits in fruit juice production,learning different fruit juices							
Work Placement		N/A							
Planned Learning Activities and Teaching Methods				Explanation (Presentation), Experiment, Demonstration					
Name of Lecturer(s)									

Assessment Methods and Criteria

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

Recommended or Required Reading

1	Cemeroğlu, B., Karadeniz, F., 2001. "Fruit Juice Technology"
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Week	Weekly Detailed Course Contents	
1	Theoretical	Fruit structure, composition and importance of fruit juice technology
	Practice	Program introduction and rules
2	Theoretical	Pretreatments and definitions in fruit juice production
	Practice	Laboratory equipment and purposes
3	Theoretical	Clear fruit juice production- pressing pre-treatments
	Practice	Press application, filter, core extraction machine, palper and aroma holder
4	Theoretical	Clear fruit juice production - pressing and clarifying
	Practice	Clarification experiment and accounts
5	Theoretical	Clear juice production-filters and fruit juice filtration in the food industry
	Practice	Centrifuge and use
6	Theoretical	Clear juice production - Heat treatment, quality criteria and packaging
	Practice	Bottling and pasteurization
7	Theoretical	Clear fruit juice production - aroma holders and concentrate production
	Practice	Determination of formol index
8	Intermediate Exam	Midterm
9	Theoretical	Pulp fruit juices production-1
	Practice	Viscosity measurements
10	Theoretical	Pulp fruit juices production-2
	Practice	Fruit juice production calculations from concentrate
11	Theoretical	Citrus juices production-Properties and pretreatments



11	Practice	Experimental production of fruit juice from concentrates
12	Theoretical	Pulp fruit juices production-extraction
	Practice	Nectar production calculations
13	Theoretical	Pulp juices production - Heat treatment and packaging
	Practice	Heat treatment efficiency control, microbiological analysis
14	Theoretical	Nectar production
	Practice	Determination of TSE conformity of fruit juices
15	Theoretical	Nectar production
	Practice	General evaluation
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
Individual Work	14	0	2	28
Midterm Examination	1	7	1	8
Final Examination	1	7	1	8
Total Workload (Hours)				100
[Total Workload (Hours) / 25*] = ECTS				4

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

1	To comprehend the composition and structure of fruits and vegetables in fruit juice processes
2	Learning the fundamentals of technological production of fruit juices
3	To be able to understand the effects of production parameters and techniques on final product quality in fruit juice products
4	Identify the problems that may occur in the production and offer solutions
5	To be able to comprehend different fruit juice production lines and working principle of equipments
6	To be able to analyze the production quality
7	To be able to evaluate the results of the analysis according to the relevant legal regulations
8	To design the flow system for a process given in fruit juice processes

Programme Outcomes (Fruit and Vegetables Processing Technology)

1	To be able to understand social, cultural and social responsibilities and to have the ability to follow national and international contemporary
2	In line with the principles and reforms of Atatürk; Adopting the national, moral, spiritual and cultural values ??of the Turkish Nation, open to universal and contemporary developments, the Turkish language is a rich, rooted and productive language; love and awareness of language; to have the ability to use the foreign language sufficiently and with the habit of reading and professionally.
3	To know the basic hardware units and operating systems of computer, internet to be able to prepare documents, spreadsheets and presentations on the computer by using office programs
4	Gains the theoretical and practical knowledge at the basic level in mathematics, science and professional fields
5	Recognize and analyze the problems with the knowledge of fruit and vegetable technology in the field, interpret the data and propose solutions.
6	According to the prepared work plan and program in laboratories, it can carry out the necessary works to obtain the desired quality product.
7	To have professional and ethical responsibility in business life.
8	It is open to development and change, follows scientific social and cultural innovations and constantly improves itself.

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	L8
P1	2	3	2	2	2	3	3	3



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

