



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

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|--|---|---|----------------------|---|---|----------------------------------|---|------------|---|
| Course Title | | Quality Control in Fruit and Vegetable Products | | | | | | | |
| Course Code | | MSI208 | | 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 | | It is aimed to teach quality control in fruit and vegetable processing and to control quality in raw material, processing and storage stages. | | | | | | | |
| Course Content | | Quality control and standardization concepts and their importance, quality management systems, Food industry quality control department, functions and relations with other units, Sensory, physical, chemical and instrumental evaluations of foods are described. | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Demonstration | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

Assessment Methods and Criteria

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

Recommended or Required Reading

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| 1 | Cemeroğlu, B. 2010. Food analysis. Food Technology Association Publications |
| 2 | Altuğ, T., Ova, G., Demirağ, K., Kurtcan, Ü., 1995, 1995 Food Quality Control Ü, Ege University Faculty of Engineering Publications No: 29, Ege University Press |

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|--|
| 1 | Theoretical | Quality control and standardization concepts and their importance, quality management systems |
| | Practice | General evaluation |
| 2 | Theoretical | Quality control department in food industry, its functions and relations with other units |
| | Practice | Important quality control parameters in food enterprises |
| 3 | Theoretical | Basic quality control concepts, food standards |
| | Practice | Create a HACCP plan |
| 4 | Theoretical | Quality criteria affecting the shelf life of foods |
| | Practice | Shelf life in fruits and vegetables |
| 5 | Theoretical | Defects in food, viscosity, consistency, flavor, adulteration, imitation and falsification concepts |
| | Practice | Introduction of physical analysis equipment in fruits and vegetables |
| 6 | Theoretical | Sensory, physical, chemical and instrumental evaluations of foods |
| | Practice | Introduction of chemical analysis equipment in fruits and vegetables |
| 7 | Theoretical | Sensory evaluations in fresh fruit vegetables (color, appearance, flavor) |
| | Practice | Color analysis in fruits and vegetables |
| 8 | Intermediate Exam | Midterm |
| 9 | Theoretical | Physical and chemical evaluations in fresh fruit vegetables (aw, moisture, ash, total dry matter, water soluble dry matter) |
| | Practice | Determination of moisture and ash in fruits and vegetables |
| 10 | Theoretical | Physical and chemical evaluations of fruit and vegetable products (aw, moisture, ash, total dry matter, water soluble dry matter, ash) |
| | Practice | Determination of water soluble dry matter in fruits and vegetables |
| 11 | Theoretical | Physical and chemical evaluations in fresh fruit vegetables (salt, sugar, titration acidity, pH) |
| | Practice | Fruit and vegetables pH, sugar analysis |
| 12 | Theoretical | Physical and chemical evaluations of fruit and vegetable products (salt, sugar, acidity, pH) |
| | Practice | Determination of salt and acidity in fruits and vegetables |
| 13 | Theoretical | Physical and chemical evaluations of fruit and vegetable products (protein, ascorbic acid, alcohol, tannin) |



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| 13 | Practice | Determination of protein in fruits and vegetables |
| 14 | Theoretical | Physical and chemical evaluations of fruit and vegetable products (protein, ascorbic acid, alcohol, tannin) |
| | Practice | Determination of ascorbic acid in fruits and vegetables |
| 15 | Theoretical | An overview |
| | Practice | Determination of phenolic compounds in fruits and vegetables |
| 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

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| 1 | To understand the concept of quality and its importance |
| 2 | To be able to comprehend quality criteria in fruit and vegetable products |
| 3 | To be able to develop quality control knowledge and skills |
| 4 | To be able to apply quality control methods, identify problems and propose solutions |
| 5 | To learn about Food Codex |

Programme Outcomes (Fruit and Vegetables Processing Technology)

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|---|--|
| 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 |
|----|----|----|----|----|----|
| P1 | 2 | 2 | 2 | 3 | 3 |
| P2 | 2 | 2 | 2 | 3 | 3 |
| P3 | 2 | 2 | 2 | 2 | 2 |
| P4 | 3 | 3 | 3 | 3 | 3 |
| P5 | 4 | 4 | 3 | 3 | 3 |
| P6 | 3 | 3 | 4 | 4 | 4 |
| P7 | 4 | 4 | 5 | 4 | 5 |
| P8 | 4 | 4 | 5 | 4 | 5 |

