# AYDIN ADNAN MENDERES UNIVERSITY
# COURSE INFORMATION FORM

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|---|---|---|---|---|---|---|---|---|---|
| Course Title | Soil Science | | | | | | | | |
| Course Code | ZYD109 | | Couse Level | Short Cycle (Associate's Degree) | | | | | |
| ECTS Credit | 3 | Workload | 78 *(Hours)* | Theory | 2 | Practice | 1 | Laboratory | 0 |
| Objectives of the Course | This course aims to students in crop production, natural plant growth media to recognize the soil physical, chemical, sağlamakta be able to understand the informed view about the biological properties of soil fertility | | | | | | | | |
| Course Content | The general structure of the soil, soil physical, chemical and biological properties of soil formation, soil-water interactions, erosion and soil conservation | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Demonstration, Discussion, Case Study, Individual Study | | | | | | | | |
| Name of Lecturer(s) | Ins. Özgür SARI | | | | | | | | |

| Assessment Methods and Criteria | | |
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| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 70 |

| Recommended or Required Reading | |
|---|---|
| 1 | Altınbaş, Ü., Çengel, M., Uysal, H., Okur, B., Okur, N., Kurucu, Y., Delibacak, S., 2004. Toprak Bilimi. E.Ü. Zir. Fak. Yayın No: 557, İzmir. |
| 2 | Ergene, A., 1993. Toprak biliminin esasları. Atatürk Üni. Yayın No:586, Erzurum. |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | Erozyon kavramının farkına varabilme ve yapılabilecekleri belirleyebilme |
| | Practice | To identify concepts and be able to realize the erosion they can |
| 2 | Theoretical | Identification of the land, the introduction of a general nature. |
| | Practice | As informed in the field of observational soil |
| 3 | Theoretical | Soil parent material and material types. |
| | Practice | Visual presentation of the soil forming rocks |
| 4 | Theoretical | Examination of soil formation and effective factors. |
| | Practice | Visual presentation of the soil forming rocks |
| 5 | Theoretical | Soil formation and productivity relations. |
| | Practice | Field observations |
| 6 | Theoretical | Analysis of the morphology and soil horizons. |
| | Practice | soil morphology and visual horizons with slide |
| 7 | Theoretical | To evaluate the physical properties of the soil: Soil texture disclosure of relationships and productivity. |
| 8 | Intermediate Exam | Midterm exam |
| 9 | Theoretical | The physical properties of the soil: a description of soil structure and fertility relationships, information about soil color and soil temperature. |
| | Practice | Soil texture, visual slides on the structure |
| 10 | Theoretical | Soil and water: the water retention in soil, water types and efficiency in terms of evaluation. |
| | Practice | earth attitude in the field of observational |
| 11 | Theoretical | Analysis of the chemical properties of soils: Colloidal fraction and cation exchange, assessing them in terms of soil fertility. |
| | Practice | Soil pH-pH meter |
| 12 | Theoretical | Chemical properties of soil: Soil reaction, importance, pH - productivity relationships. |
| | Practice | chemical properties of soil: Soil reaction, importance, pH - productivity relationships. |
| 13 | Theoretical | Soil organic matter, properties, evaluation of the efficiency of organic matter sources. |
| | Practice | slide on Erosion |

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|---|---|---|
| 14 | Theoretical | biological properties of the soil: from the viewpoint definition and soil fertility of soil organisms |
| | Practice | biological properties of the soil: from the viewpoint definition and soil fertility of soil organisms |
| 15 | Theoretical | biological properties of the soil: from the viewpoint definition and soil fertility of soil organisms |
| | Practice | biological properties of the soil: from the viewpoint definition and soil fertility of soil organisms |
| 16 | Final Exam | Final exam |

| **Workload Calculation** | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 1 | 2 | 42 |
| Lecture - Practice | 14 | 1 | 1 | 28 |
| Midterm Examination | 1 | 3 | 1 | 4 |
| Final Examination | 1 | 3 | 1 | 4 |
| | | | Total Workload (Hours) | 78 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 3 |
| **25 hour workload is accepted as 1 ECTS* | | | | |

| **Learning Outcomes** | |
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| 1 | Knows the importance of soil properties in crop production |
| 2 | Ensures sustainability by increasing soil fertility |
| 3 | Taking into account the soil-plant relationships does increase planning efficiency |
| 4 | Fights Erosion |
| 5 | Know the chemical and biological properties of soils |

| **Programme Outcomes** *(Olive Cultivation and Olive Processing Technology)* | |
|---|---|
| 1 | To be able to identify olive, soil and water and to having knowledge these |
| 2 | To be able to comprehend knowledge botany and fruit growing |
| 3 | To be able to comprehend table olive technology and to apply |
| 4 | To be able to comprehend knowledge basic biochemistry and olive oil chemistry and to have olive oil with modern and traditional systems, to have knowledge olive oil rafinery, basic process and to have apply olive oil extraction |
| 5 | To be able to preserve olive and olive products in appropriate condition |
| 6 | To be able to comprehend growing olive plant with necessary agricultural methods and to have general maintenance of olive tree |
| 7 | To be able to evaluate olive by-products |
| 8 | To be able to comprehend knowledge about vegetable genetic |
| 9 | To be able to comprehend knowledge occupational safety and have apply first aid |
| 10 | To be able to apply necessray laboratory analysis in olive and olive products production |
| 11 | To be able to apply hygiene and sanitation rules in factory |
| 12 | To be able to comprehend knowledge of proffessional ethics and responsibility |
| 13 | To be able to comprehend knowledge marketing of olive products and to have olive management |
| 14 | To be able to communicate verbally and literally |
| 15 | To be able to comprehend planning olive growing and production area |
| 16 | To be able to comprehend knowledge vegetable ecology and protection of environment |