# AYDIN ADNAN MENDERES UNIVERSITY
# COURSE INFORMATION FORM

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Course Title | Evaluation of Farm Irrigation Systems | | | | | | | | |
| Course Code | ZTY616 | | Couse Level | Third Cycle (Doctorate Degree) | | | | | |
| ECTS Credit | 6 | Workload | 150 *(Hours)* | Theory | 2 | Practice | 2 | Laboratory | 0 |
| Objectives of the Course | Course Objectives Teaching the techniques for irrigation systems evaluation for evaluating actual operation and management, and for determining the potential for more economical and efficient operation. | | | | | | | | |
| Course Content | Course Content Basic concepts and terms, evaluation techniques for farm irrigation systems: evaluation of sprinkler and trickle irrigation systems, evaluation of furrow, border and border-strip irrigation | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Discussion, Individual Study, Problem Solving | | | | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

| **Assessment Methods and Criteria** | | |
|---|---|---|
| Method | Quantity | Percentage (%) |
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

| **Recommended or Required Reading** | |
|---|---|
| 1 | Merriam, J. L. and J. Keller, 1978. “Farm Irrigation System Evaluation: A Guide for Management”. Department of Agricultural and Irrigation Engineering, Utah State University, Logan, Utah, USA. |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | Methods of system evaluation |
| 2 | Theoretical | Basic concepts and definitions |
| 3 | Theoretical | The need for system evaluation |
| 4 | Theoretical | Uniformity and irrigation efficiency |
| 5 | Theoretical | Evaluation of basin irrigation systems |
| 6 | Theoretical | Evaluation of border-strip irrigation systems |
| 7 | Theoretical | Evaluation of furrow irrigation systems |
| 8 | Theoretical | Evaluation of furrow irrigation systems |
| 9 | Intermediate Exam | Midterm exam |
| 10 | Theoretical | Evaluation of pressurized irrigation systems |
| 11 | Theoretical | Evaluation of drip irrigation systems |
| 12 | Theoretical | Evaluation of sprinkler irrigation systems |
| 13 | Theoretical | Evaluation of surge and LEPA irrigation systems |
| 14 | Theoretical | Problem solving |
| 15 | Theoretical | Problem solving |
| 16 | Final Exam | Final Exam |

| **Workload Calculation** | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 3 | 2 | 70 |
| Lecture - Practice | 14 | 2 | 2 | 56 |
| Midterm Examination | 1 | 8 | 2 | 10 |
| Final Examination | 1 | 12 | 2 | 14 |
| | | | Total Workload (Hours) | 150 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 6 |
| **25 hour workload is accepted as 1 ECTS* | | | | |

| **Learning Outcomes** | |
|---|---|
| 1 | Basic concepts and definitions; the need for system evaluation |

| | |
|---|---|
| 2 | Evaluation of surface irrigation systems |
| 3 | Evaluation of pressurize irrigation systems |
| 4 | Interpretation of experimental results and preparetion of results |
| 5 | Monitoring and evaluation of recent developments in irrigation engineering |

| **Programme Outcomes** *(Agricultural Structures and Irrigation Doctorate)* | |
|---|---|
| 1 | Ability to analyze, synthesize and evaluate different forms of scientific knowledge in the field of studies |
| 2 | Approach to information systematically, and gain skills related to their field the research methods |
| 3 | Innovative science to develop a scientific method or a method that is known to practice in their field |
| 4 | Ability to organize and manage the project and advanced scientific research |
| 5 | Advanced technologies, find solutions to engineering problems taking advantage of the software and model approaches |
| 6 | Creative, unbiased and critical thinking |
| 7 | A topic in the field of written, verbally and visually as the ability to express |
| 8 | Ability to publish in refereed journals National and international the results of studies |

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