



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

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|--|---|---|-------------|---|---|--------------------------------|---|------------|---|
| Course Title | | Wind Power Systems | | | | | | | |
| Course Code | | ZTM538 | | 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 course is that information is given to the students about alternative energy resources and about the energy which is an important input in agriculture | | | | | | | |
| Course Content | | The course provides information about the overall energy world and Turkey's general energy and alternative energy potential is revealed, it defined the basic parameters of wind energy; their engineering calculations are shown. Information is given about the application areas of alternative energies in agriculture. | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Project Based Study, 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

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| 1 | Alternative Energy Resources Graduate Course Notes |
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| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|---|
| 1 | Theoretical | General energy information |
| 2 | Theoretical | Wind energy technology and application areas in agriculture |
| 3 | Theoretical | Wind energy technology and application areas in agriculture |
| 4 | Theoretical | Wind energy technology and application areas in agriculture |
| 5 | Theoretical | Wind energy technology and application areas in agriculture |
| 6 | Theoretical | Wind energy technology and application areas in agriculture |
| 7 | Intermediate Exam | Midterm Exam |
| 8 | Theoretical | Basic elements of wind energy systems and working principle of the system |
| 9 | Theoretical | Basic elements of wind energy systems and working principle of the system |
| 10 | Theoretical | Basic elements of wind energy systems and working principle of the system |
| 11 | Practice | Basic elements of wind energy systems and working principle of the system |
| 12 | Practice | Basic elements of wind energy systems and working principle of the system |
| 13 | Theoretical | Optimization of energy |
| 14 | Final Exam | Final Exam |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 4 | 3 | 98 |
| Assignment | 6 | 10 | 5 | 90 |
| Midterm Examination | 1 | 3 | 3 | 6 |
| Final Examination | 1 | 3 | 3 | 6 |
| Total Workload (Hours) | | | | 200 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 8 |

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

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| 1 | Learn the general energy information |
| 2 | Learn the wind energy technology and application possibilities in agriculture |
| 3 | Recognize the system elements of wind energy technology |



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| 4 | Analyze the working principle of wind energy technology. |
| 5 | Optimization of energy |

Programme Outcomes (Agricultural Machinery Master)

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| 1 | Identification, formulation and solving the problems in the field of Agricultural Machinery |
| 2 | The ability to use modern engineering tools and techniques |
| 3 | The ability to use the information, which is obtained by following the scientific and technological developments, in the academic life and practice. |
| 4 | The ability to evaluate multi-faced relationship between them by understanding interaction among agricultural technology, soil, plants and animals |
| 5 | Professionalism and ethical responsibility |
| 6 | The ability to work in disciplinary and multi-disciplinary teams |
| 7 | The ability to communicate effectively |
| 8 | The ability to do research for accessing information and to use data base and other resources |
| 9 | The ability to do analyze and interpret the experimental results and the design of experiment |
| 10 | The ability to identify and interpret knowledge of current professional issues and events |
| 11 | The ability to get aware the universal and social effects of engineering solutions and applications |
| 12 | Accordance with the requirements of science and technology, ability to use scientific knowledge creative |

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

| | L2 | L4 |
|-----|----|----|
| P1 | | 4 |
| P2 | 4 | |
| P3 | 5 | |
| P4 | | 4 |
| P5 | 5 | |
| P6 | | 5 |
| P7 | 5 | |
| P9 | | 5 |
| P10 | 4 | |

