# AYDIN ADNAN MENDERES UNIVERSITY
# SÖKE VOCATIONAL SCHOOL
# ELECTRICAL AND ENERGY
# ALTERNATIVE ENERGY SOURCES TECHNOLOGY
# COURSE INFORMATION FORM

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Course Title | System Analysis and Design-I | | | | | | | | |
| Course Code | AET291 | | Couse Level | | Short Cycle (Associate's Degree) | | | | |
| ECTS Credit | 2 | Workload | 50 *(Hours)* | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | In this lesson it is aimed that students acquire knowledge and skills about designing application project, applying and presenting it. | | | | | | | | |
| Course Content | Deciding study subject, presenting gathered information, defining system/product functions and variables, determining necessary materials, preparing system/product specifications or flowchart, making system/product program or calculations, setting up the environment where system/product would work, setting up system/product , testing system/product , presenting outputs of system/product as a report | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Discussion, Individual Study, Problem Solving | | | | | | | | |
| Name of Lecturer(s) | Ins. Serkan ARTAN | | | | | | | | |

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

| **Recommended or Required Reading** | |
|---|---|
| 1 | Lecturer notes. |

| Week | Weekly Detailed Course Contents | |
|---|---|---|
| 1 | Theoretical | Deciding study subject |
| 2 | Theoretical | presenting gathered information |
| 3 | Theoretical | defining system/product functions and variables |
| 4 | Theoretical | determining necessary materials |
| 5 | Theoretical | determining necessary materials |
| 6 | Theoretical | preparing system/product specifications or flowchart |
| 7 | Theoretical | Making system/product program or calculations, |
| 8 | Theoretical | Making system/product program or calculations, |
| 9 | Theoretical | Setting up the environment where system/product would work |
| 10 | Theoretical | Setting up system/product |
| 11 | Theoretical | Setting up system/product |
| 12 | Theoretical | Testing system/product |
| 13 | Theoretical | Testing system/product |
| 14 | Theoretical | Presenting outputs of system/product as a report |

| **Workload Calculation** | | | | |
|---|---|---|---|---|
| Activity | Quantity | Preparation | Duration | Total Workload |
| Lecture - Theory | 14 | 0 | 2 | 28 |
| Midterm Examination | 1 | 10 | 1 | 11 |
| Final Examination | 1 | 10 | 1 | 11 |
| | | | Total Workload (Hours) | 50 |
| | | | [Total Workload (Hours) / 25*] = **ECTS** | 2 |
| **25 hour workload is accepted as 1 ECTS* | | | | |

| **Learning Outcomes** | |
|---|---|
| 1 | Identifying system/product target and content |
| 2 | Making detailed research about the subject of system/product |

| | |
|---|---|
| 3 | Making calculations/writing program about system/product |
| 4 | Develop a project related to the system. |
| 5 | Designs new projects. |

| **Programme Outcomes** *(Alternative Energy Sources Technology)* | |
|---|---|
| 1 | Carry out installing work |
| 2 | Do mechanical drawing |
| 3 | Do pipe welding |
| 4 | Do basic electricity works |
| 5 | Do Computer assisted design |
| 6 | Install solar energy hot water preparation system. |
| 7 | Do measurement and calculations practices. |
| 8 | Do basic practices of geothermal energy. |
| 9 | Install control and automation system. |
| 10 | Install domestic water heating system with solar energy. |
| 11 | Generate electricity with solar energy |
| 12 | Generate electricity with wind power |
| 13 | Do geothermal energy practices |
| 14 | Install domestic cooling system |
| 15 | Do heating pump practices |
| 16 | Manage a business |
| 17 | SET UP A WORKPLACE/ BUSINESS (pre-requisite) |
| 18 | OBEY VOCATIONAL ETHICAL VALUES |
| 19 | RESEARCH AND EVALUA0TION/OBSERVATION |
| 20 | SELFIMPROVEMENT WITH USING INFORMATION FACILITIES |
| 21 | Knows the effects of all energy sources on the environment. |
| 22 | Can communicate in a foreign language |

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

| | L1 | L2 | L3 | L4 | L5 |
|---|---|---|---|---|---|
| P18 | 4 | 4 | 4 | 4 | 4 |
| P19 | 5 | 5 | 5 | 5 | 5 |