



**AYDIN ADNAN MENDERES UNIVERSITY**  
**KOÇARLI VOCATIONAL SCHOOL**  
**MECHANICAL AND METAL TECHNOLOGY**  
**AGRICULTURAL MACHINERY**  
**COURSE INFORMATION FORM**

|  |  |          |             |              |   |                                  |   |            |   |
|--|--|----------|-------------|--------------|---|----------------------------------|---|------------|---|
| Course Title                                     | Computer Aided Design II   |          |             |              |   |                                  |   |            |   |
| Course Code                                      | TAM227   |          |             | Course Level |   | Short Cycle (Associate's Degree) |   |            |   |
| ECTS Credit                                      | 4  | Workload | 100 (Hours) | Theory       | 2 | Practice                         | 2 | Laboratory | 0 |
| Objectives of the Course                         | Gaining the competences of three-dimensional drawing and assembling with computer-aided is aimed by this lesson.   |          |             |              |   |                                  |   |            |   |
| Course Content                                   | Draft drawing and editing, three-dimensional drafting, creation of solid models, surface modelling, three-dimensional assembly, obtaining technical drawings from solid models, creation of construction drawings from solid models, animation and prepare a presentation. |          |             |              |   |                                  |   |            |   |
| Work Placement                                   | N/A  |          |             |              |   |                                  |   |            |   |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Demonstration, Discussion, 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

|   |   |
|---|---|
| 1 | Reference book, SolidWorks 2011 (Sevilay TURGUT, Mustafa TURGUT)              |
| 2 | Reference book, SolidWorks & SolidCam 2011 (Ali Naci BIÇAKCI, Mustafa ERKMEN) |

| Week | Weekly Detailed Course Contents |   |
|------|---------------------------------|---|
| 1    | Theoretical                     | Knowing program interface and options. Using file, edit, and view menu tools. |
| 2    | Theoretical                     | Using reference geometry, sketch, and relations tools.                        |
| 3    | Theoretical                     | Creating solid parts with sketch and features.                                |
| 4    | Theoretical                     | Creating solid parts using sketch and features tools.                         |
| 5    | Theoretical                     | Creating complex face by surface and solid modeling tools.                    |
| 6    | Theoretical                     | Creating complex face by surface modeling tools.                              |
| 7    | Theoretical                     | Structural members and design, weldment,                                      |
| 8    | Intermediate Exam               | Midterm Exam  |
| 9    | Theoretical                     | Creating sheet metal parts and pattern. Sheet metal die design.               |
| 11   | Theoretical                     | Part pattern, using toolbox and toolbox browser.                              |
| 12   | Theoretical                     | Collapsed and exploded views, Animations, visualization.                      |
| 13   | Theoretical                     | Drafting and assembly drawing.  |
| 14   | Theoretical                     | Simulations of solid parts and assembly.                                      |
| 15   | Theoretical                     |   |
| 16   | Theoretical                     |   |

#### Workload Calculation

| Activity                                | Quantity | Preparation | Duration | Total Workload |
|---|----------|-------------|----------|----------------|
| Lecture - Theory                        | 14       | 0           | 2        | 28             |
| Lecture - Practice                      | 14       | 0           | 2        | 28             |
| Assignment                              | 4        | 4           | 0        | 16             |
| Laboratory                              | 10       | 2           | 0        | 20             |
| Midterm Examination                     | 1        | 3           | 1        | 4              |
| Final Examination                       | 1        | 3           | 1        | 4              |
| Total Workload (Hours)                  |          |             |          | 100            |
| [Total Workload (Hours) / 25*] = ECTS   |          |             |          | 4              |
| *25 hour workload is accepted as 1 ECTS |          |             |          |                |



**Learning Outcomes**

|   |  |
|---|--|
| 1 | To be able to make three dimensional Computer aided design and assemble. |
|---|--|

**Programme Outcomes (Agricultural Machinery)**

|    |   |
|----|---|
| 1  | To be able to comprehend social, cultural and societal responsibility and keep up with national and international up contemporary issues and developments.  |
| 2  | To be able to be bounded to the Atatürk nationalism, adopted to the national, ethic, spiritual and cultural value of the Turkish Nation, opened to the universal and modern development, adopted the richness, deep seated and productive properties of the Turkish language, having language sympathy and awareness, having reading pleasure and habit and having sufficient foreign language for their vocational necessities, In the directions of the Atatürk Principles and Revolutions, |
| 3  | To be able to recognize the basic computer hardware and operating systems , knowledge of internet usage being able to prepare documents, electronic tables and presentation by using office programs.   |
| 4  | To be able to be aware of ethic responsibility and vocational profession and to have consciousness of a lifelong learning concept   |
| 5  | To be able to know current vocational issues and to have skill to define and interpret them.  |
| 6  | To be able to be aware of the universal and social dimensional effects in engineering solutions, and to be able to have knowledge about entrepreneurship and newfangledness.  |
| 7  | To recognize the materials which used for preparation of agricultural machinery and have skill for the choosing the appropriate material.   |
| 8  | To be able to acquire the skill of using the necessary tools and equipments which are used in the production and maintenance of agricultural machinery.   |
| 9  | To be able to prepare the agricultural tools and machineries, to determine the breakdowns and to do periodic maintenance and repairs.   |
| 10 | To be able to comprehend the picture of the agricultural tools and machinery and their fabrication , and have the skill to draw them via computer.  |
| 11 | To be able to assemble and to combine machinery pieces by using demountable and nondetachable junction methods.   |
| 12 | To be able to have the skill of resistance calculations of the agricultural tool and machinery on computer.   |
| 13 | To be able to test and control the suitability of new machines and mechanic equipment to the definite standarts and technical properties.   |
| 14 | To be able to have general knowledge of agricultural production.  |
| 15 | To be able to have knowledge of basic sciences.   |

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

|     | L1 |
|-----|----|
| P3  | 1  |
| P4  | 2  |
| P6  | 2  |
| P7  | 2  |
| P9  | 1  |
| P10 | 5  |
| P11 | 4  |
| P12 | 5  |
| P13 | 4  |
| P15 | 1  |

