



Course Outcome Summary

Required Program Core Course

MDTC 228 Introduction to SOLIDWORKS - CSWA

Course Information

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| Division | ASET |
| Contact Hours | 60 |
| Theory | 20 |
| Lab Hours | 40 |
| Total Credits | 3 |

Prerequisites RDG 090 or qualifying scores on accepted placement tests

Course Description

The Introduction to SOLIDWORKS - CSWA course is designed for SOLIDWORKS students, designers, and engineers. This course is the first step toward becoming a proficient SOLIDWORKS user. It covers the core concepts of 3D parametric modeling, common part design, assembly creation, and drawing generation. Additionally, the course is designed to help users prepare and successfully pass the Certified SOLIDWORKS Associate (CSWA) exam.

This course is a required core course for students pursuing an AAS in Mechanical Design Technology

Program Outcomes Addressed by this Course:

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A. Effectively communicate technical ideas and problem-solving decisions with others.
- B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
- C. Apply math, science, and engineering technology principles to solve problems in mechanical design.
- D. Use creativity in the design of mechanical components and systems.
- E. Recognize problems in mechanical design applications and develop appropriate solutions.
- F. Work productively as an individual and as a team member of a problem-solving team in an engineering environment.
- G. Recognize the need to stay current in the mechanical design career field.
- H. Demonstrate professional and ethical behavior.

Course Outcomes

In order to evidence success in this course, the students will be able to:

1. **Recognize the SOLIDWORKS user interface.**
Applies to Program Outcome
 - B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
2. **Demonstrate the process of creating part models.**
Applies to Program Outcome
 - A. Effectively communicate technical ideas and problem-solving decisions with others.
 - B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
 - E. Recognize problems in mechanical design applications and develop appropriate solutions.
 - F. Work productively as an individual and as a team member of a problem-solving team in an engineering environment.



MONROE COUNTY
COMMUNITY COLLEGE

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3. **Demonstrate the process of creating assembly models from part models.**
Applies to Program Outcome
 - A. Effectively communicate technical ideas and problem-solving decisions with others.
 - B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
 - C. Apply math, science, and engineering technology principles to solve problems in mechanical design.
 - E. Recognize problems in mechanical design applications and develop appropriate solutions.
 - F. Work productively as an individual and as a team member of a problem-solving team in an engineering environment.
4. **Prepare engineering drawings from part and assembly models.**
Applies to Program Outcome
 - A. Effectively communicate technical ideas and problem-solving decisions with others.
 - B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
 - F. Work productively as an individual and as a team member of a problem-solving team in an engineering environment.
5. **Articulate the key topics covered in the CSWA exam.**
Applies to Program Outcome
 - B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
 - E. Recognize problems in mechanical design applications and develop appropriate solutions.
 - G. Recognize the need to stay current in the mechanical design career field.
 - H. Demonstrate professional and ethical behavior.

Date Updated: 4-14-19
By: Dean R. Kerste