

## CADD1400 - Introduction to SolidWorks

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Credits:           | 3 (2/1/0)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Description:       | This course introduces students to the part modeling and drawing layout tools in Dassault's SolidWorks design software. Students learn the concepts of parametric sketching and modeling, sketched feature creation and editing, placed feature creation and editing, and model-derived drawing layouts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Prerequisites:     | <ul style="list-style-type: none"><li>• CADD1000</li><li>• DET1104</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Corequisites:      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Pre/Corequisites*: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Competencies:      | <ol style="list-style-type: none"><li>1. Demonstrate proper file management for .sldprt and .slddrw files.</li><li>2. Utilize parametric sketching tools to create feature profiles.</li><li>3. Utilize sketched feature creation tools to generate parametric solid models.</li><li>4. Utilize placed feature creation tools to generate parametric solid models.</li><li>5. Apply sketch constraint relationships and dimensions to fully constrain and define sketched features.</li><li>6. Manage browser panel views and feature display.</li><li>7. Demonstrate the use of feature naming conventions.</li><li>8. Create drawing layouts based on parametric model geometry.</li><li>9. Create title blocks, tolerance blocks and revision blocks to current ASME (American Society of Mechanical Engineers) standards.</li></ol> |
| MnTC goal areas:   | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

\*Can be taking as a Prerequisite or Corequisite.