

# CADD 33 – ANALYSES AND SIMULATION WITH CATIA

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**TEXT:** Advanced Catia V5 Workbook – SDC Publications Author: Cozzens

**UNITS:** 2

## DESCRIPTION:

This is an (8) week class, with (8) class hours per week – (2) Lecture, (6) Lab hours

The class is designed for users with a working knowledge of Catia V5. This would include the core functionality of V5: sketcher, part design, and assembly. This class will serve as an introduction to several specialized Catia V5 workbenches which may enhance a users design, analysis, and manufacturing skills. The topics will be covered in approx. (2) week increments. Most assignments will come from the Advanced V5 Catia manual. Student may substitute (1) or more topics with approval of instructor.

## TOPICS:

- KNOWLEDGEWARE
- KINEMATICS
- SHEET METAL
- GENERATIVE STRUCTURAL ANALYSIS

## ASSIGNMENTS:

## POINT VALUE

|   |      |
|---|------|
| <b>Knowledgeware:</b> 1 – Handouts                      | 150  |
| 2 – Ch. 1   | 150  |
| <b>Kinematics:</b> 1 – Ch 2                             | 150  |
| 2 – Arbor Press   | 150  |
| <b>Sheet Metal:</b> 1 – Ch. 4                           | 200  |
| <b>Structural Analysis:</b> 1 - Ch. 3; 2 – Student Part | 100  |
| 2 – Student Part  | 100  |
| <b>Total</b>  | 1000 |

**Note:**

To receive an “A”, you must earn at least 900 points.

To receive a “B”, you must earn at least 800 points.

To receive a “C”, you must earn at least 700 points.

To receive a “D”, you must earn at least 600 points.

To receive an “F”, you must earn less than 600 points

**CADD 33 Analyses and Simulations with CATIA SL0 #1****Knowledgeware and Generative Sheet Metal Functions :**

Given sufficient product definition information, the student will be able to create tabulated models and flat pattern models utilizing the Knowledgeware and Generative Sheet Metal functions within the CATIA V5 software.

**CADD 33 Analyses and Simulations with CATIA SL0 #2****Kinematic Simulations:**

Given a CATIA Product model of a simple mechanism, the student will be able to create kinematic simulations utilizing the Kinematics Simulation function within the CATIA V5 software.

**CADD 33 Analyses and Simulations with CATIA SL0 #3****Stress Analysis:**

Given a CATIA Product model of a simple mechanism, the student will be able to perform stress analyses utilizing Stress Analysis functions within the CATIA V5 software.

**DISABILITY STATEMENT:**

Students with disabilities who believe they may need accommodations in this class are encouraged to contact the Special Resources Center on campus as soon as possible to ensure such accommodations are implemented in a timely fashion. Please contact me privately to discuss your specific needs.