

Course Outline

CADD 242

Solid Modeling

3 semester hours

The Community College of Baltimore County

Description

Solid Modeling

Focuses on the nature of solid modeling as contrasted with traditional two-dimensional techniques emphasizing mechanical applications; includes: development and editing of solid entities, importing and exporting models, and use of solid models in manufacturing situations.

Prerequisites: Current experience with two dimensional CADD software, or permission of Program Coordinator

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Create models utilizing sketches, profiles, dimensions and constraints
2. Add specific features to models
3. Edit model features and dimensions
4. Determine the mass properties of a model
5. Develop associative two dimensional drawings from models
6. Utilize reference geometry
7. Create multi-part assemblies
8. Manage the components of a multi-part assembly model

Major Topics

1. Develop skills with industrial level solid modeling software
2. Recognize the advantages of solid modeling over traditional two dimensional techniques
3. Identify, originate and edit solid primitives
4. Determine mass properties of models
5. Create multi-part models
6. Understand how solid models are used in manufacturing situations

Course Requirements

Grading/Exams: Grading procedures will be determined by the individual faculty member but will include the following:

1. Graded exercises
2. Comprehensive final project
3. Class participation

Other Course Information

This course is an elective course in the CADD curricula.
This course is taught in a computerized environment.
There are 2 lecture and 3 laboratory hours per week.

Banner Short Course Description

Focuses on the nature of solid modeling with emphasis on mechanical applications. Includes: development and editing of solid entities, creation of two dimensional drawings from models and multiple part models. Prerequisites: Current experience with two dimensional CADD software, or permission of Program Coordinator

Full Catalog Description

This course focuses on the nature of solid modeling as contrasted with traditional two dimensional techniques, with emphasis on mechanical applications. Includes: development and editing of solid entities, importing and exporting models, creation of two dimensional drawings from models, determination of mass properties, multiple part models, and use of solid models in manufacturing situations. Prerequisites Current experience with two dimensional CADD software, or permission of Program Coordinator