

Course Outline
CADD 213
Advanced CADD III
3 semester hours

The Community College of Baltimore County

Description

Advanced CADD III

Completes study of mechanical design; includes several assigned projects and development of appropriate designs, drawings and other supporting materials.

Prerequisites: CADD 211, or permission of Program Coordinator

Overall Course Objectives

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

1. Identify factors effecting product design, interfaces, producability, marketability, reliability, maintainability, human factors and safety
2. Know and be able to use design references and materials
3. Produce technical documentation to support a design
4. Select appropriate fasteners and joining techniques
5. Develop surface finishes, tolerancing and standard fits for specific design requirements
6. Understand the principles of design for manufacturing and assembly
7. Explain elementary mechanics and stress analysis
8. Explain and appropriately select from manufacturing processes including: machining, forging, powdered metal, sheet metal and plastic molding
9. Work as a productive member of a design team
10. Prepare and deliver formal and informal project briefings

Major Topics

1. Refinement of mechanical design skills developed in previous CADD courses
2. The Engineering design process
3. Technical documentation and shape description
4. Establishment, organization and functioning of a design team
5. Design ingenuity and creativeness
6. Materials and manufacturing processes
7. Design resources and references
8. Oral, written and visual project presentations and briefings

Course Requirements

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

1. Graded exercises
2. Project development and presentation
3. Class participation

Other Course Information

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

Revised 09/18/00

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Banner Short Course Description

Students will undertake several assigned projects and develop appropriate designs, drawings and other supporting materials. A student developed project will be a major component in the course. Drawings will be produced using CADD techniques and AutoCAD software. Prerequisites: CADD 211, or permission of Program Coordinator

Full Catalog Description

The final course in mechanical design. Students will undertake several assigned projects and develop appropriate designs, drawings and other supporting materials. A student developed project will be a major component in the course. Drawings will be produced using CADD techniques and AutoCAD software. Prerequisites: CADD 211, or permission of Program Coordinator