

Bergen Community College
School of Mathematics, Science and Technology
Computer Science, Engineering & Information Technologies

Course Syllabus
DFT 208 Engineering Graphics I [Using SolidWorks]

Semester and year:

Course Number:

Meeting Times and Locations:

Instructor:

Office Location:

Phone:

Office Hours:

Email Address:

COURSE DESCRIPTION:

DFT 208 Engineering Graphics I [Using SolidWorks] is designed to acquaint students to various types of graphic solutions used in solving engineering and drafting problems. Particular attention is given to orthographic projection. Methods of visualization relating to auxiliary views, lines and planes, and points are explored in detail to help prepare students for advanced drafting and CAD. This course will utilize SolidWorks - Parametric design software which allows you to create parts, assemblies and drawings.

2 lecture, 2 labs, 3 credits

Prerequisites: None

Co-requisites: None

STUDENT LEARNING OBJECTIVES:

As a result of meeting the requirements in this course, students will be able to

Student performance on these objectives will be measured by:

1. Implement drafting concepts and procedures of first and third angle projection when developing solid models for multiview projection.	Graded modeling assignments, midterm and final exams.
2. Create three dimensional solid models.	Graded modeling assignments, midterm and final exams.
3. Modify parameters on the part at different stages while maintaining other dimensions.	Graded modeling assignments, midterm and final exams.
4. Construct assemblies and detailed drawings from solid models using SolidWorks	Graded modeling assignments, midterm and final exams.

TEXTBOOK: SolidWorks for Designers

Sham Tickoo - Purdue University

ISBN 978-1-64057-084-9

<https://www.cadcim.com/solidworks-2021-for-designers>

EVALUATION: A. Class Participation.....20% B. Worksheet
 Assignments.....50%
 C. Midterm Examination.....10%
 D. Final Examination.....10%
 TOTAL.....100%

Attendance policy:

BCC Attendance Policy: “All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.”

CALENDAR:

	<u>Class Meeting</u>	<u>Date</u>	<u>Topic</u>	<u>Chapter</u>	<u>Orthographic Projections. First Angle</u>
1.	_____		Projection. Third Angle Projection. Folding	1	Lines. Visibility
2.	_____		Primary Auxiliary Views	2	
3.	_____		SolidWorks. Interface, creating new parts, sketching, viewing & saving parts.		3
4.	_____		Creating Part, Assembly, and Drawing Template. Title Block. Revision Block. Creating Part Drawing. Annotation. Sheet Layout.		4
5.	_____		Drawing Views. Changing Units. Section Views. Assigning Material. Basic Geometric Dimensioning & Tolerancing. Modifying Drawing Views. (First angle Projection and Third Angle Projection). Exercises in class.		5
6.	_____		More to Explore and Modifying a Part. Feature Manager Design Tree. Changing a Sketch Plane. Revolved feature. Exercises in class. Review for Mid-Term.		6

7. _____Mid Term Exam (10% of Grade) 8. _____Modeling More Parts.

Rapid Sketch. Instant 2D.

7

Linear Patterns. Circular Pattern. Hole Wizard.
Shell. Section. Measuring.
Exercises in class

9. _____Loft. Sweep. Convert Entities. Exercises in class. 8

10. _____Creating an Assembly. Mating. Mirror

9

Component. Component Pattern Assembly
Drawing. BOM Balloons.

11. _____Assembly Drawing. BOM. Balloons. Exploring

10

BOM balloons.

12. _____Exploring Assembly. Assembly Drawing.

11

Moving Components. Grouping Parts.
Exploded View. Renaming Parts and Assembly
(Assigning new Part Numbers)

13. _____Open Lab - review for final examination 14. _____

Final examination

15 _____Final Exam Review and Questions related to the course.

Civility/Classroom Conduct

As a college of choice, Bergen Community College provides a comfort level that enables students of all abilities to mature as learners and engaged citizens. Therefore, it is important that this class provide a stimulating, rigorous, and inclusive learning environment. To that end, students must demonstrate respect to others and to ideas and opinions expressed in the class. Use of cell phones and laptops is prohibited, unless special permission is granted. Anyone not following these standard procedures may be asked to remove him/herself from the class.

Services for Students with Disabilities:

A wide variety of services are available for students with documented disabilities through the Office of Special Services (OSS) [Room S – 131, (201) 612-5270]. OSS is dedicated to serving students with physical, visual, learning, hearing, and emotional disabilities. If a student has been classified in high school or had a 504 plan, it is highly recommended that the student contact OSS during the college application process. A more detailed explanation can be found on the College web site, www.bergen.edu. Personal information is kept confidential. Examples of the types of accommodations and services include: Extended test taking time Organizational strategies.