

Bergen Community College
Division of Math, Science and Technology
Department of Industrial & Design Technology

Course Syllabus
MFG-119 Pro/Engineer® Design I

Semester and year:
Course Number:
Meeting Times and Locations:

Instructor:
Office Location:
Phone:
Office Hours:
Email Address:

COURSE DESCRIPTION:

MFG-119 Pro/Engineer® Design I is a study of the basic functionality and use of Parametric Technology's (PTC's) **Pro/Creo®** 3D solid modeling software. Emphasis will be placed on the technology as well as the terminology in relation to this advanced tool. Lecture and lab will be used to teach not only how to use specific features of the software but also how to use it in design.

2 lecture, 3 lab, 3 credits

Prerequisites: 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. Demonstrate the basics of solid modeling	Graded modeling assignments and exams
2. Learn the fundamentals of the ProEngineer interface	Graded modeling assignments
3. Demonstrate the ability to create and understand the value of a parametric model	Graded modeling assignments and exams
4. Realize the capabilities of utilizing ProEngineer as a Mechanical Engineering tool	Graded modeling assignments and exams

This course offers both theory and practice to provide students with the opportunity to develop the basic skills required in the use of Pro/Engineer.

COURSE CONTENT:

<u>CHAPTER</u>	<u>TOPIC</u>
	Introduction to Pro/Engineer
	1. User Interface, View Controls and Model Structure
	2. Creating a Simple Object (Part I)
	3. Creating a Simple Object (Part II)
	4. Revolved Protrusions, Mirror Copies, Rounds, and Chamfers
	5. Modeling Utilities and the 3 R's
	6. Datum Planes and Sketcher Tools
	7. Patterns and Copies
	8. Engineering Drawings
	9. Assembly Fundamentals

TEXTBOOK: Creo Parametric 2.0 Tutorial– A Click-by-Click Primer
Roger Toogood – Schroff Development Corporation, Shawnee-Mission
Kansas (www.schroff.com) ISBN (Book + Software on Disk): 978-1-
58503-730-8

EVALUATION:	A.	MODELING EXERCISES	50%
	B.	MIDTERM EXAM	10%
	C.	FINAL EXAM	20%
	D.	CLASS PARTICIPATION	20%
			Total: 100%

ATTENDANCE POLICY:

Attendance will be taken twice during each class period. The first attendance for the lecture portion of the class will be at the beginning of each class. The second attendance, for the laboratory portion of the class will be taken at 12:45 p.m. for classes beginning in the morning and 9:45 p.m. for evening classes.

If a student is absent from the lecture portion of the class, it will be recorded as an absence for the entire class period. If a student is absent from the laboratory portion of the class, it will be recorded as an absence from that portion of the class only.

A letter grade will be deducted from the class participation portion of your final grade for each absence beyond three absences from either portion of a class period.

FACULTY ABSENCE PROCEDURE: Please note well.

A daily listing will appear in the glass case located in the main hall A bldg. which will indicate all classes which are cancelled. Students can consult this case before going to class. If students find a class cancelled which has not been listed, they should report this to the divisional dean's office (A325) or to the

evening/Saturday office (L113).

MFG 119 Pro/Engineer® Design I Calendar

Class Meeting	Date	Topic	Chapter
1	_____	Introduction to Pro/Engineer	Intro
2	_____	Lesson 1: Introducing Pro/E and Creating a Simple Object using Sketcher	1
3	_____	Lesson 2: Creating Holes and Cuts, the Model Tree, and Feature Relations	2
4	_____	Lesson 2: Creating Holes and Cuts....	2
5	_____	Lesson 3: Shafts, Rounds, Chamfers, and Slots	3
6	_____	Lesson 4: Sketcher Tools and Datum Planes	4
7	_____	Lesson 5: Revolved Features, Patterns, and Copies	5
8	_____	Midterm Examination	
9	_____	Lesson 6: Sweeps and Blends	6
10	_____	Lesson 7: Modeling Utilities, Parent/Child Relations, and the 3R's	7
11	_____	Lesson 8: Creating Engineering Drawings	8
12	_____	Lesson 9: Assembly Fundamentals	9
13	_____	Course Review	
14	_____	Final Examination	
15	_____	Last Date to Finish Exercises and Review of the Final Examination	

All BCC students enrolled in credit courses are entitled to a WebAdvisor account. With WebAdvisor, you may register online, check your schedule, room assignments, GPA, and find out what courses you need to take. To find out more about WebAdvisor or to sign up online, visit <http://go.bergen.edu>! While there, please make sure you give us your preferred email address. You'll find directions how to do this at <http://go.bergen.edu/email>.