SYLLABUS
PART I
EDISON COMMUNITY COLLEGE
MET 247S DESIGN WITH INVENTOR I
2 CREDIT HOURS

COURSE DESCRIPTION
In-depth study of the Inventor software with emphasis on learning the application. Topics include:
Principles of Solid Modeling, parametric design, generation of bill of materials, creating symbols,
assembly modeling, and automated associated. Prerequisite: EGR 110S and MET 130S or department
permission. Lab fee.

COURSE GOALS
The student will:

Bloom's Level			Program Outcomes
3	1.	Demonstrate an understanding the fundamentals and interfaces of Inventor.	1, 6
3	2.	Demonstrate an understanding of the design philosophy of Inventor.	1, 2, 6
5	3.	Create sketches for part creation.	1, 6
5	4.	Create and modify parts.	1, 6
3	5.	Apply principles behind design intent.	1, 6, 7
3	6.	Use dimensions and relations.	1, 3, 6
5	7.	Create datum features.	1, 3, 6
3	8.	Apply feature duplication techniques.	1, 6
5	9.	Create advanced feature forms.	1, 6
4	10.	Breakdown feature sequences.	1, 6
5	11.	Create drawings and generate cross sections.	1, 6
5	12.	Create assemblies.	1, 3, 6

CORE VALUES
The Core Values are a set of principles, which guide in creating educational programs and environments
at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for
learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will
introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE
1. Inventor fundamentals and interface
2. Design philosophy of Inventor
3. Creation of sketches for parts
4. Principles behind design intent
5. Dimensions and relations
6. Datum features
7. Feature duplication techniques
8. Drawings and cross sections
9. Maximizing design intent
10. Advanced feature forms
11. Manipulation of feature forms
12. Troubleshooting feature creation problems
13. Creation of assemblies