SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
MET 245S DESIGN WITH SOLIDWORKS I
2 CREDIT HOURS

COURSE DESCRIPTION
In-depth study of the SolidWorks 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 or department permission. Lab
fee.

COURSE GOALS
The student will:

Bloom's Levels		Program Outcomes
3	1. Demonstrate an understanding of the fundamentals and interfaces of SolidWorks.	1, 6
3	2. Demonstrate an understanding of design philosophy of SolidWorks.	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 State. 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. SolidWorks fundamentals and interface
2. Design philosophy of SolidWorks
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