A. CATALOG DESCRIPTION
1. Credits: 3 (1 lecture, 2 lab)
2. Hours/Week: 1 hour lecture, 4 hours lab
3. Prerequisites (Course discipline/number): CAD 1039, CAD 1120, CAD 1123, CAD 1150, CAD 1222, CAD 1323, or instructor’s permission.
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course offers students the understanding of surface modeling using SolidWorks. It also addresses the concepts of parametric design. Learning by example: students will design real world products with SolidWorks. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks.

B. DATE LAST REVISED (Month, year): April, 2013

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Understanding Surfaces
2. Introducing to Surfacing
3. Solid-Surface Hybrid Modeling
4. Repairing and Editing Imported Geometry
5. Advanced Surface Modeling
6. Blends and Patches
7. Master Model Technique

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Create and learn basic surfacing concepts.
2. Understand surfacing capabilities.
4. Use edit and repair Imported Geometry.
5. Use advanced modeling concepts.
6. Create blends and patches.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
1. Checking electronic drawing files
2. Skill proficiency quizzes
3. Written tests

G. RTC CORE OUTCOME(S) ADDRESSED:

- Communication
- Critical Thinking
- Global Awareness/Diversity
- Civic Responsibility
- Personal/Professional Accountability
- Aesthetic Response

H. SPECIAL INFORMATION (If any):
Tuition differential