COURSE INFORMATION FORM

DISCIPLINE
Engineering Technology

COURSE TITLE
Technical Illustration

CR.HR 3 LECT HR. 2 LAB HR. 2 CLIN/INTERN HR. _______ CLOCK HR. _______

CATALOG DESCRIPTION
An introduction to a professional technical illustration and animation software tool. Topics covered are object modeling and editing, lights, shadows, materials, backgrounds, scenes, images and basic animation. A comprehensive final project is included in the course.

PREREQUISITES
ETEC 152

EXPECTED STUDENT OUTCOMES IN THE COURSE
Upon completion of this course, the student will be able to:
1. Define terminology related to modern technical illustration.
2. Navigate the interface of an illustration software package.
3. Model simple and complex objects.
4. Import CADD models into an illustration package.
5. Describe light types and options.
6. Create lights in an illustration.
7. Describe shadow types and options.
8. Create shadows in an illustration.
10. Create existing materials from a base or from a raster image.
11. Apply materials to objects.
12. Import backgrounds into an illustration.
13. Render multiple scenes from one file.
14. Create raster files from rendering.
15. Add movement, reaction, and deformation to an illustration.
CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

Daily projects (2-4, 6, 8-15)
Quizzes (1, 5, 7)
Written exams (1, 5, 7)
Performance exams (2-4, 6, 8-15)
Final project (2-4, 6, 8-15)

PROGRAM-LEVEL OUTCOMES ADDRESSED

General Education Outcomes
Specify which general education outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes and assessment measures.

Occupational Program Outcomes
Specify which occupational program outcomes, if any, are substantially addressed by the course by completing the “Course/Program Assessment Matrix” to show the relationship between course and program outcomes to assessment measures.
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Introduction
   A. Technical illustration examples
   B. Terminology
   C. Software interface
   D. Viewing tools

II. Modeling
   A. Primitives
   B. Derived objects
   C. Compound objects
   D. Groups

III. Importing CADD Files

IV. Lights
   A. Spot lights
   B. Omni lights
   C. Ambient light
   D. Distant lights

V. Shadows
   A. Lights and shadows
   B. Shadow types

VI. Materials
   A. Materials library
   B. Applying materials
   C. Modifying materials
   D. Creating materials

VII. Backgrounds and Landscape Objects

VIII. Scenes
   A. Multiple scenes
   B. Light configurations
   C. View configurations

IX. Creating Raster Files
X. Animations
   A. Movement
   B. Reaction
   C. Deformation