Course Outline

Course Title: Engineering Drafting
Submitted By: R. Bennick
Semester Course Prefix and Number: ENGR 1355
Approval Date: March 2002
Old Quarter Course Prefix and Number: ENGR 111
Revision Date: Feb. 2002

Number of Credits: 3
Number of Lecture Credits: 1
Number of Lab Credits: 2
Number of Lab Hours: 4
Negotiated Class Size: Spring
Number of Studio/Demonstration/Internship Credits: 4

Catalog Description:
This course reviews the fundamentals of drafting with a review of technical sketching and lettering, orthographic projection, dimensioning rules, and sectional views. The course includes descriptive geometry, including auxiliary views, revolution, intersection, and developments, and technical drafting. Techniques used include hand/machine drafting and computer aided drafting.

Prerequisites and/or recommended entry skills/knowledge:
Course Prerequisite(s): None
Reading Prerequisite: College Level
Composition Prerequisite: College Level
Mathematics Prerequisite: College Level

Career Programs and Transfer Majors Accessing this Course:
Engineering, architectural

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable: Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

0. X None
1. ___ Communications
2. ___ Critical Thinking
3. ___ Natural Sciences
4. ___ Mathematical/Logical Reasoning
5. ___ History and the Social and Behavioral Sciences
6. ___ The Humanities and Fine Arts
7. ___ Human Diversity
8. ___ Global Perspectives
9. ___ Ethical and Civic Responsibility
10. ___ People and the Environment
Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:
The student will:
- Produce and dimension orthographic, pictorial, and sectional view drawings, with a minimum of instruction
- Complete descriptive geometry problems using auxiliary views, revolutions, intersections, and developments
- Read and analyze working drawings and blueprints
- Enter and plot an assigned drawing, using the available computer-aided hardware and software

Student assessment methods:
- Drawings and assignments will be graded on accuracy, solution, difficulty and appearance
- Drawings and assignments will constitute 50% of final grade, weekly quizzes and mid quarter examination will constitute 25% of final grade and final examination will constitute 25% of final grade.
- Letter grades will be used based on points accumulated on drawings, quizzes and tests

Use of instructional technology (includes software, interactive video and other instructional technologies):
Students will use a computer aided drafting software package (AutoCAD 98 LT) to draw one half of the assignments.

Outline of the major course content:
- Pre-test to determine students’ status
- Review of orthographic projection, dimensioning, and section view drawing
- Demonstrate computer-aided drafting using PC hardware and software (AutoCAD 98 LT)
- Review of pictorial drawings
- Auxiliary views
- Revolutions
- Intersections
- Developments
- Working drawings
- Blueprint analysis
- Reproduction of drawings
- Review all of the above; final examination

Additional special information (special fees, directives on hazardous materials, etc.)

Transfer Information: (Please list colleges/majors that accept this course in transfer.)

Approvals:

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<th>Representative Signatures</th>
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<tbody>
<tr>
<td>Curriculum Committee</td>
<td>Kim Giermann</td>
<td>Feb. 20, 2002</td>
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<td>Faculty Association</td>
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<td>Dr. Jill Peterson</td>
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<td>Chief Academic Officer</td>
<td>Dr. Jill Peterson</td>
<td>March 15, 2002</td>
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