Course Outline

Course Title: Technical Drafting
Submitted By: Ray Bennick
Semester Course Prefix and Number: DRFT 1355
Approval Date: March 2002
Old Quarter Course Prefix and Number: DRFT 110
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:

Course Purpose Code:

0 – Developmental Courses
1 – Non-transferable, General Education
2 – Technical course related to career programs
3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This course introduces the fundamentals of drafting: careers in drafting, instrument drafting, technical sketching and lettering, basic and advanced geometry, orthographic projection, dimensioning rules, sectional views and pictorial drawings. Techniques used include sketching, 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 6. 
1. _____ Communications 7. 
2. _____ Critical Thinking 8. 
3. _____ Natural Sciences 9. 
5. _____ History and the Social and Behavioral Sciences
Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:
The student will:
- Demonstrate the correct techniques in the use of drafting equipment
- Display the skill to letter notes and dimensions on all assignments where required
- Neatly and accurately communicate and express ideas through the use of assigned sketches
- Correctly solve problems in basic and advanced geometry-drafting techniques and uses
- Correctly draw orthographic and pictorial drawings where necessary
- Display skill and accuracy in dimensioning drawings where necessary
- Correctly analyze, interpret, and identify the various components of working drawings
- Accurately enter and plot (print) assigned drawings using computer-aided drafting 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 midterm 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 some of the assignments

Outline of the major course content:
- Pre-test to determine students’ status
- Careers in drafting
- Introduction to CAD
- Instrument drafting
- Tools and equipment that will be used
- Technical sketching and lettering techniques
- Geometry in technical drawing - basic and advanced
- Multi-view drawing (orthographic projection from isometric; spatial perception)
- Dimensioning fundamentals
- Section views
- Pictorial drawing - axonometric, oblique and perspective
- 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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