Manufacturing & cnc Technology

Instructor: Joe Kennedy	Web Site: www.deanza.edu/cnc
Classroom: E35	Office Hours: E2 Lab Tu/Th 2:30-5:30
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DMT 90: Print Reading and Dimensional Metrology

I. Course Description

Interpretation of multi-view engineering blue prints, visualization techniques, auxiliary and section views. Appraisal of revision columns, title blocks and bills of material, interpretation of dimensional tolerancing notations, and introduction to geometric dimensioning and tolerancing (GD&T) using ANSI and ISO standards. Applications and capabilities of semi-precision and precision measuring tools, including scaled, Vernier and digital instruments, used in manufacturing environments to inspect production and prototype parts. Review of typical calculations used in the machine shop.

II. Method of Instruction:

Reading assignments will be made from the text. These assignments are expected to be completed before the class meeting for the assigned date.

Class meetings will consist of reading assignment reviews, class exercises, and lab assignments.

Laboratory assignments will include practice exercises, assigned projects, quizzes, and directed activities to apply and test the theories presented in the class lectures, laboratory demonstrations, and reading assignments.

III. Attendance & Conduct Policy

Since practical participation is an essential part of the class, any student will be dropped from the class on their third unexcused absence. Early departure from class or every three tardy arrivals will each be considered a time absent. Any student not attending the first day of class will automatically be dropped that day. Once dropped, re-registration will be required for this course.

Any student disrupting class may be asked to leave. De Anza College will enforce all procedures set forth in the Student Standards of Conduct (see class schedule); appropriate remedial and/or disciplinary steps will be taken when violations occur.

IV. Student Materials

PROVIDED:

1. Metrology Handouts / Worksheets

REQUIRED:

Available at the De Anza College Bookstore or Amazon:
1. Text: Blueprint Reading for the Machine Trades , 7th Edition, Schultz and Smith, Pearson
2. Calculator (need not be graphing, but must have trig and inverse trig functions)

Note: This text contains workbook pages that you will fill out as part of class exercises. Therefore, it is not recommended that you use a rental or used book.

OPTIONAL:

Available at stores that stock machine & inspection tools.
1. Text: Mathematics for Machine Technology, 7th Edition, Peterson and Smith, Cengage Learning
2. Text: Precision Machining Technology, 2nd Edition, Hoffman, Hopewell, and Janes; Cengage Learning
3. Steel Rule, 0-6" Fractional & Decimal
4. 0-6 Inch Dial or Digital Caliper (Dial is preferred)
5. 0-1 Inch Vernier Micrometer

V. Evaluation of Outcome:

The student's progress is evaluated objectively on the basis of scores from examinations and quizzes covering both laboratory work and lecture material. Three major examinations are given: two mid-term exams and a final exam the last week of the quarter. These examinations combined constitute approximately 55% of the final grade.

Laboratory work constitutes approximately 45-50% of the final grade. Assignments must be completed during the class or lab period in which they are assigned. No credit will be given for assignments not completed due to absence (in-class or otherwise).

Any student that has never been absent, turns all lab assignments in on the assigned day, and is within one percent (1%) of the next higher grade, will receive the higher grade.

GRADE CALCULATION (approximate):

Daily Quiz and Lab Assignments:

		GRADE DISTRIBUTION:
~20 assignments, 20-30 points each	550	A+= 97% to 100%
		A = 93% to 96.99%
Examinations:		A- = 90% to 92.99%
		B+= 87% to 89.99%
Mid-Term #1	175	B = 83% to 86.99%
Mid-Term #2	175	B- = 80% to 82.99%
Final Exam	300	C+= 77% to 79.99%
		C = 70% to 76.99%
Total:	1100	D = 60% to 69.99%
		F = less than 60%