

**MIDLAND COLLEGE
SYLLABUS
MCHN 1320
PRECISION TOOLS AND MEASUREMENT
3-0**

Course Description: An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with machining trade. Practice of basic layout and piece part measurements while using standard measuring tools.

Text, References, and Supplies: **Practical Problems in Mathematics**, Thomson, Sformo-Moore, 7th Edition.

Course Goal/Objectives: The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. Upon successful completion of the course the student will; (*designates a CRUCIAL Goal)

1. Basic operations with *whole numbers*
2. Basic operations with *fractions*
3. Basic operations with *decimals*
4. *Measurements*
5. *Equations, formulas, and square roots*
6. *Ratio, proportion, and percent*
7. *Precision measuring instruments*
8. *Geometry*
9. *Applied geometry*
10. *Shop trigonometry*

Performance Objectives:

1. The student will be enrolled in MCHN 1320. The student will exhibit professional behavior. Performance will be satisfactory if;
 - a. College attendance is adhered to
 - b. Student participates in class
 - c. Student maintains a positive attitude
2. Unless otherwise stated, the student will be allowed references, including research material located in the Midland College Building Technology Library. The student will be provided demonstrations for each of the content goals as seen necessary by the instructor. These goals will be complete and satisfactory is consistent with NHBA and the course text.
3. Satisfactory performance will be measured by an objective and/or application exam and instructor's observation.

Evaluation of Students:	Aztec	20%
	Units 1-10 (even only) Section 1&2	20%
	Test 1	20%
	Units 11-21 (even only) Section 3&4	20%
	Test 2	<u>20%</u>
	Total	100%

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90 and above	A
80 to 89	B
70 to 79	C
60 to 69	D
50 to 59	F

Course Schedule:
SCANS Information:

This class meets for 3 lecture hours and 0 lab
The following SCANS skills are taught and reinforced in this course:

READING:

Locates, understands and interprets written information in the manuals and documents published by construction governing bodies in order to perform task and judge accuracy and style

WRITTEN:

Maintains written notebook containing thoughts, ideas, information obtained from research and notes from lectures and demonstrations. Produces and maintains progress in order to keep accurate and complete track of his/her own progressing skills.

MATHEMATICS:

The students will perform basic computations, use basic numerical concepts in practical situations. They will approach practical problems by choosing appropriate mathematical techniques, use quantitative data to construct logical explanations for real world situations, and express mathematical ideas orally.

Instructor Information:

Pete Avalos
(432) 681-6344
ATC 128

Curt Pervier, Division Dean
Applied Technology
Lisa Hays, Division Secretary
Applied Technology
(432) 685-4676
Fax: (432) 685-6472

Students are encouraged to contact the instructor at any time; however, making an appointment will guarantee the instructor's availability at a specific time.

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Students with Disabilities

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan's office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

Midland College Non-Discriminatory Statement:

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu**. For further information on notice of non-discrimination, visit <http://wdcrobcop01.ed.gov/CFAPPS/OCR/contactus.cfm> or call 1 (800) 421-3481.

Spanish

Midland College no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad, o edad en sus programas o actividades. Las siguientes personas han sido designadas para responder a cualquier pregunta o duda sobre estas políticas no discriminatorias: **Tana Baker, Title IX Coordinator/Compliance Officer, 3600 N. Garfield, SSC 242, Midland, TX 79705, (432) 685-4781, tbaker@midland.edu**; **Natasha Morgan, Director Human Resources/Payroll, 3600 N. Garfield, PAD 104, Midland, TX 79705, (432) 685-4534, nmorgan@midland.edu**. Para más información sobre estas políticas no discriminatorias, visite <http://wdcrobcop01.ed.gov/CFAPPS/OCR/contactus.cfm> o llame al 1 (800) 421-3481.