

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.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

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:

Addendum A: 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.

Students may perform the following tasks in order to maintain safe lab and classroom spaces:

- Participate in shop and classroom maintenance which may include, but not limited to sweeping, mopping, disposing of trash, cleaning work benches, organize tools and equipment, organize tool room, disinfect classroom tables and chairs.
- Disassemble discontinued lab training vehicles or equipment for salvage.

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- Repurpose lab vehicles to be utilized in lab assignments.
- Other course related tasks as assigned by instructor.

<u>Evaluation of Students:</u>	Measurement Assignments	35%
	Quizzes	30%
	Final Exam	<u>35%</u>
	Total	100%
	90 and above	A
	80 to 89	B
	70 to 79	C
	60 to 69	D
	50 to 59	F

Course Schedule: This class meets for 3 lecture hours and 0 labs

SCANS Information: 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.

Administrative Information:

Curt Pervier, Division Chair Technical Studies

Lisa Tanner, Technical Studies Division Secretary
(432) 685-4676
Fax: (432) 685-6472

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

*Syllabus subject to change as deemed necessary by the instructor to ensure learning objectives and course goals are met.

Non-Discrimination 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 individual has been designated to handle inquiries regarding the non-discrimination policies:

Tana Baker

Title IX Coordinator/Compliance Officer
3600 N. Garfield, SSC 131
Midland, Texas 79705
(432) 685-4781
tbaker@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

Americans with Disabilities Act (ADA) Statement:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a "Notice of Accommodations" letter will be sent to instructors outlining any reasonable accommodations.