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

Billy Baker	MCHN 1320 - DCT 1 MCHN 1320 - DET 1 MCHN 1320 - DTG 3 MCHN 1320 – DTN 1 MCHN 1320 – DTU 1 MCHN 1320 – DTX 1	Scott Cranford	MCHN 1320 DTL 2 MCHN 1320 DTL 3 MCHN 1320 DTL 4 MCHN 1320 DTM 2 MCHN 1320 DTM 3 MCHN 1320 DTM 4
Norman Cremeans	MCHN 1320 DTL 5	Erick Gutierrez	MCHN 1320 BW01 MCHN 1320 BWU1 MCHN 1320 CW01 MCHN 1320 CW02 MCHN 1320 DCT2 MCHN 1320 DTE2 MCHN 1320 DTG1
Vanessa Hyatt	MCHN 1320 ETL 7 MCHN 1320 ETM 7	Hector Montes	MCHN 1320 DTM5

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

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

Evaluation of Students:

Measurement Assignments	35%
Quizzes	30%
Final Exam	35%
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:

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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:

Pete Avalos, Dean of Applied Technology

Division Office:
Main Campus/MHAB #176
(432) 685-4676

Erick Gutierrez, Department Chair/Professor
ATC Office #126
(432) 686-4917
egutierrez@midland.edu

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

Americans with Disabilities Act (ADA)
Any student who, because of a disabling condition, may require some special arrangements to meet course requirements should contact disabilities support services as soon as possible at: Accommodation Services. 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. Accessibility Links can be found on the Pages tab in Canvas.

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. For information and inquiries regarding Midland College's non-discrimination policies, go to: Title IX For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

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