

Washtenaw Community College Comprehensive Report

MTH 125X Everyday College Math

Conditional Approval

Effective Term: Winter 2025

Course Cover

College: Math, Science and Engineering Tech

Division: Math, Science and Engineering Tech

Department: Math & Engineering Studies

Discipline: Mathematics

Course Number: 125X

Org Number: 12200

Full Course Title: Everyday College Math

Transcript Title: Everyday College Math

Is Consultation with other department(s) required: No

Publish in the Following:

Reason for Submission: New Course

Change Information:

Rationale: MTH 125X will be taken by students with a math level or either 1 or 2 who need to take MTH 125. MTH 125X will provide extra support for these students.

Proposed Start Semester: Winter 2025

Course Description: In this course, students will further their knowledge of mathematical concepts and applications they might encounter in everyday adult life. Students will explore the following topics: investing and borrowing, home loans, student loans, sets, Venn diagrams, functions, probability and statistics. The following outcomes will be addressed: interpretation of mathematical information; representation of mathematical information; calculation and communication of results; application of information, which includes making judgments and conclusions based on quantitative analysis of data; and communication of information, which includes expressing quantitative evidence in support of an argument. Topics including rounding, percentages, decimals, place value, exponents and roots, order of operations, solving equations, evaluating simple formulas, basic inequalities, divisors and reducing fractions, and the coordinate plane will be added to the course. This course includes additional instructor contact hours and is open to Math Level 1 and Math Level 2 students only.

Course Credit Hours

Variable hours: No

Credits: 4

Lecture Hours: Instructor: 75 Student: 75

Lab: Instructor: 0 Student: 0

Clinical: Instructor: 0 Student: 0

Total Contact Hours: Instructor: 75 Student: 75

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

Reduced Reading/Writing Scores

College-Level Math

No Level Required

Requisites

Enrollment Restrictions

Reading Level 3 and concurrently enrolled in ENG 111 and ENG 111S; or Academic Reading Level 5; Academic Math Level 1 or 2.

General Education

Request Course Transfer

Proposed For:

Eastern Michigan University
Ferris State University
Grand Valley State University
Jackson Community College
Kendall School of Design (Ferris)
Lawrence Tech
Michigan State University
Oakland University
University of Detroit - Mercy
University of Michigan
Wayne State University
Western Michigan University

Student Learning Outcomes

1. Perform consumer finance calculations for interest, loans, annuities, and mortgages.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Winter 2025

Assessment Cycle: Annually

Course section(s)/other population: All sections

Number students to be assessed: A random sample of 25% of students with a minimum of 50 students

How the assessment will be scored: Departmental rubric

Standard of success to be used for this assessment: At least 70% of students will score 75% (3 out of 4) or higher on the outcome-related questions.

Who will score and analyze the data: Departmental faculty

2. Calculate operations on sets and use Venn diagrams to answer questions involving "and", "or", and "not".

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Winter 2025

Assessment Cycle: Annually

Course section(s)/other population: All sections

Number students to be assessed: A random sample of 25% of students with a minimum of 50 students

How the assessment will be scored: Departmental rubric

Standard of success to be used for this assessment: At least 70% of students will score 75% (3 out of 4) or higher on the outcome-related questions.

Who will score and analyze the data: Departmental faculty

3. Calculate probabilities including those using addition and multiplication rules; solve probability problems.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Winter 2025

Assessment Cycle: Annually

Course section(s)/other population: All sections

Number students to be assessed: A random sample of 25% of students with a minimum of 50 students

How the assessment will be scored: Departmental rubric

Standard of success to be used for this assessment: At least 70% of students will score 75% (3 out of 4) or higher on the outcome-related questions.

Who will score and analyze the data: Departmental faculty

4. Identify and state domain and range; graph and interpret linear, quadratic and exponential functions.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Winter 2025

Assessment Cycle: Annually

Course section(s)/other population: All sections

Number students to be assessed: A random sample of 25% of students with a minimum of 50 students

How the assessment will be scored: Departmental rubric

Standard of success to be used for this assessment: At least 70% of students will score 75% (3 out of 4) or higher on the outcome-related questions.

Who will score and analyze the data: Departmental faculty

5. Calculate and interpret statistics, including measures of center and spread, and make predictions based on the normal curve.

Assessment 1

Assessment Tool: Outcome-related test questions

Assessment Date: Winter 2025

Assessment Cycle: Annually

Course section(s)/other population: All sections

Number students to be assessed: A random sample of 25% of students with a minimum of 50 students

How the assessment will be scored: Departmental rubric

Standard of success to be used for this assessment: At least 70% of students will score 75% (3 out of 4) or higher on the outcome-related questions.

Who will score and analyze the data: Departmental faculty

Course Objectives

1. Solve problems relating to compound interest. Calculate compound interest on savings and annuities and compare earnings from simple versus compound interest.
2. Solve problems relating to mortgages. Calculate mortgage payments including tax and insurance liabilities and amortization tables.
3. Find annual percentage interest rate for purchases such as rent-to-own and payday loans.
4. Solve problems involving "and", "or", and "not" with a Venn diagram.
5. Calculate measures of central tendency: mean, median and mode.
6. Solve problems relating to probability. Calculate probability of events using multiplication and addition rules.
7. Calculate monthly personal budget amounts under stated criteria.
8. Calculate compound interest on savings and annuities, and compare earnings from simple versus compound interest.

9. Calculate measures of spread (variance, range and standard deviation), and use these measures to draw conclusions and comparisons between data sets.
10. Find z-values for specific data values and probabilities for given z-values and data values.
11. Use z-values to make decisions about data values.
12. Calculate conditional probabilities.
13. Calculate rounded values for financial calculation, including intermediate rounding of calculations where necessary.
14. Represent information given in a problem with a Venn diagram.
15. Represent linear models in various ways: table, equation or graph.
16. Solve problems involving rounding, percentages, decimals, place value, exponents and roots, order of operations, solving equations, evaluating simple formulas, basic inequalities, divisors and reducing fractions, and the coordinate plane.

New Resources for Course

Course Textbooks/Resources

Textbooks

Sobecki. *Mathematics in our World*, 4 ed. ed. McGraw Hill, 2018

OER to be determined. *OER to be determined*, ed. Open Resource, 2024

Manuals

Periodicals

Software

Equipment/Facilities

Level III classroom

<u>Reviewer</u>	<u>Action</u>	<u>Date</u>
Faculty Preparer: <i>Jason Davis</i>	<i>Faculty Preparer</i>	<i>Sep 27, 2024</i>
Department Chair/Area Director: <i>Nichole Klemmer</i>	<i>Recommend Approval</i>	<i>Sep 27, 2024</i>
Dean: <i>Tracy Schwab</i>	<i>Request Conditional Approval</i>	<i>Sep 27, 2024</i>
Curriculum Committee Chair:		
Assessment Committee Chair:		
Vice President for Instruction: <i>Brandon Tucker</i>	<i>Conditional Approval</i>	<i>Sep 27, 2024</i>