

FALL 2012

MCCC – MAT 104 ONLN

Foundations of Mathematics II

Office Monday & Wednesday 12:15 - 1:15

Hours: Tuesday & Thursday 2:30 – 3:00

LAL: Tuesday & Thursday 1:30 – 2:30

Instructor: Paul Winterbottom

Voicemail: 215-641-6396

email: pwinterb@mc3.edu

Office: PH 16

Evaluation of grade:

25% of your final grade will be from online homeworks and quizzes.

25% of your final grade will be from test #1 which will be sections 7.2, 7.3, chapter 8, chapter 9 and chapter 10.

25% of your final grade will be from test #2 which will be section 11.1, chapter 12 and chapter 13.

25% of your final grade will be from a comprehensive final exam.

Test #1, Test #2, and the Final Exam will all be taken at the testing center at MCCC.

Grade Distribution: Final grades will be given according to the following scale:

92-100 = A	82-87 = B	70-77 = C
90-91 = A-	80-81 = B-	60-69 = D
88-89 = B+	78-79 = C+	Below 60 = F

Textbook: *A Survey of Mathematics with Applications*, 8th edition
Angel, Abbott and Runde, Pearson Custom Publishing, 2009

Learning Materials: TI-30X IIS calculator

Catalogue Description

This is the second course in the sequence MAT 103, MAT 104. Topics include geometry, measurement, probability, statistics, and problem solving. This course does not satisfy the MAT 100 prerequisite requirement for MAT 125, MAT 131, MAT 140 or MAT 161.

Prerequisites: MAT 103 with a minimum grade of "C"

Learning objectives

Upon successfully completing this course, students should have the knowledge and skills to:

1. Recognize that mathematics has applications that shape the world around them and influence their everyday lives
2. Solve problems involving two and three dimensional geometry involving basic geometric shapes, parallelism and perpendicularity.
3. Solve problems in geometry using congruence and similarity.
4. Use standard and nonstandard units to measure length, area, surface area and volume.
5. Organize data using simple statistical methods.
6. Solve problems involving measures of central tendency and dispersion.
7. Solve problems involving sampling and standardize test scores.
8. Solve problems involving experimental and theoretical probability.
9. Solve problems using basic probability rules including conditional probability
10. Solve problems involving expected values and odds.
11. Solve problems in statistics using the normal curve.
12. Solve binomial probability problems using the binomial probability formula
13. Solve percent application problems including percent change
14. Add, subtract and multiply matrices.
15. Solve systems of equations by using 2 by 2 matrices
16. Work with mathematical systems; understand what is a group, finite mathematical systems and modular arithmetic.

Sequence of topics

1. Introduction to geometry, parallelism, perpendicularity, angle measures of polygons, congruence, similarity, three-dimensional geometry
2. Metric system, perimeter, area, surface area, volume
3. Statistical graphs and tables, measures of central tendency, measuring the spread, standardize test scores, solve statistical problems using the normal curve
4. Experimental and theoretical probability, basic probability rules, counting, expected value, independent and dependent events, binomial experiments and odds
5. Addition, subtract, multiplication of matrices, inverse of 2 by 2
6. Solve percent type problems using matrix to solve system of equations
7. Introduction to groups, finite mathematical systems and modular arithmetic.

Communication Policy: All official email to students will be handled via MC3 email.

Withdrawal Policy: You must withdraw by the eighth week of the semester. Any student who fails to officially withdraw from the course will receive a grade of "F".

Audits: An audit means that you are taking the course without credit (solely for obtaining the information). Any student wishing to audit the course must do so at the initial registration or before the first test. I will not sign a "Change to Audit" form after the first test.

Tutorial Services: Free subject-area tutoring, academic workshops and study skills specialists are available at Blue Bell Campus's Tutorial Services in College Hall 180. Tutorial Services helps students develop learning strategies based on their unique learning styles with the goal of creating successful students and independent learners. For more information call 215-641-6452 or go to:

<https://mymccc.mc3.edu/allcampusresources/academicaffairs/lal/Pages/default.aspx>

Student Academic Code of Ethics: Montgomery County Community College has established an Academic Code of Ethics. It is important that you read this document at <http://www.mc3.edu/aboutus/policies/aa-3/ethics.aspx>. Violations of this code of ethics will be indicated on your transcript.

Accommodations: Students with disabilities may be eligible for accommodations in this course. Please contact the Director of Services for Students with Disabilities in College Hall 225 at 251-641-6575 or go to <http://www.mc3.edu/campuslife/student-resources/disabilities> for more information.

Veterans: Student veterans may be eligible for benefits and services related to military service. At Central Campus, contact the Military and Veterans Affairs Advisor at 215-619-7307 in CH 209 (inside the student success center) to learn about education benefits and healthcare entitlements. At the West Campus, contact Michael Ondo in South Hall 151 or at 610-718-1857 or go to <http://www.mc3.edu/campusLife/student-resources/veterans> for the veterans resources.

Early Alert: As part of our commitment to promote the academic success of all of our students, the College utilizes an Early Alert system. Faculty may alert Academic Advisors about issues related to student absence and or academic difficulty, if they are not resolved through discussion between the faculty and student. Please respond promptly to any Early Alert notification you receive through email, phone or mail, as your Academic Advisor hopes to offer you assistance in resolving these issues.

School Cancellation Code: For inclement weather listen to radio, KYW – 320 (day) 2320 (evening) or visit www.mc3.edu. Please sign up for the texting service offered by the college. This will enable you to be notified via text message about school closing/delays.

After you have read the Syllabus and Academic Code of Ethics, please email the following signed statement to Pwinterb@mc3.edu.

I have read the Syllabus and Academic Code of Ethics and fully understand the course expectations, grading, criterion, course policy and the consequences.

Your printed name:

Class:

Circle one: Central Campus Testing Center

West Campus Testing Center

Signature:

Date: