

MA103 COLLEGE ALGEBRA rooms F and E

Fall 2018 (Subject to possible revision)

Instructor: Martin Engman, Ph.D.	Time: T, Th, F 9:06-9:56; 10:54 - 11:44
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CMU Mission Statement: Central Methodist University prepares students to make a difference in the world by emphasizing academic and professional excellence, ethical leadership, and social responsibility.

Course Description: A study of equations and inequalities, functions and graphs, and systems of equations and inequalities. Prerequisite: ACT Math subscore of 22 or greater.

Course Objectives: Students will be able to simplify and solve linear, polynomial, and exponential equations as well as model applications from a problem solving perspective. Students will develop critical thinking and mathematical reasoning skills.

Materials:

- Textbook: *College Algebra, 4th Ed* by Robert Blitzer
- Students may use any calculator EXCEPT for phones/tablets/computers. In particular, graphing calculators (such as the TI84) are allowed. Extra calculators will NOT be provided during quizzes or exams.

Measurable Learning Outcomes:

1. Use algebra to combine and compose functions, find and verify inverse functions, and relate functions to their graphs.
2. Use transformations of functions to build equations and graphs.
3. Solve linear equations and inequalities.
4. Use linear functions to model real-world phenomena and solve applied problems.
5. Solve quadratic and polynomial equations and inequalities.
6. Use quadratic and polynomial functions to model real-world phenomena and solve applied problems.
7. Solve radical equations.
8. Use radical and power functions to model real-world phenomena and solve applied problems.
9. Solve exponential and logarithmic equations.
10. Use exponential and logarithmic functions to model real-world phenomena and solve applied problems.
11. Find zeros, asymptotes, and domain of rational functions and use these to solve rational inequalities.
12. Use systems of equations to model and solve applied problems.

Common Core Competencies: Math Literacy 6-7. Students will demonstrate mathematical reasoning by applying appropriate methods and procedures.

- **Students with Disabilities**-please refer to the “students with disabilities policy at <http://www.centralmethodist.edu/academics/learning-teaching/disability-accommodations.php>. A particularly important excerpt is the following:
“Central Methodist University does not discriminate on the basis of race, color, religion, sex, national origin, age, or federally defined disability/state defined handicap (“disability”). This includes but is not limited to recruitment and admission of students, educational programs, services, activities, financial aid, and scholarship programs. The University complies with all federal and state non-discrimination requirements.”
Additional help can be obtained from the Center for Learning and Teaching. It is the responsibility of the student to take the initiative in obtaining accommodations.
- **Email**- students are responsible for any course information, assignments, course updates, or information sent by the instructor or the University to a student’s email of record.
- **Course Schedule**- This can be found at the end of this syllabus, and any subsequent changes on myCMU. Please note that the instructor reserves the right to alter this schedule in order to respond to special circumstances and/or better meet the need of the students.
- **Academic Conduct**- Honesty and integrity are expected at all times. All students are expected to do their own work. Quizzes and exams must be taken without the use of any unauthorized resources or help from others. Any student found to have committed academic misconduct may suffer any or all of the following consequences: 1) score of zero for the work in question; 2) an “F” for the class; 3) Notification sent to the appropriate university officials. Furthermore, said student will come under the auspices of the CMU Academic Conduct Policy <http://www.centralmethodist.edu/academics/catalog/clas-catalog/policies/recognitions-sanctions.php>. It is the responsibility of CMU students to familiarize themselves with the policies of the university.
- **Attendance Policy**- When a student misses class, he/she should (1) look at the course schedule to see what was missed, and (2) read the assigned sections in the book and see the class notes in MyOpenMath. There are **NO** make-up quizzes. See the quiz policies on the next page for more details. Make-up exams may be given at the instructor’s discretion. See the exam policies on the next page for more details.
- **Civility Policy**- All students must behave in a manner appropriate to the learning environment. Students are expected to attend class, complete assignments on time, be respectful, act with integrity, participate in class exercises, and follow all policies. In particular,
 - Everyone in the classroom must be treated with respect. Rude, disrespectful, distracting, and/or disruptive comments and/or behavior are unacceptable. Examples of such unacceptable behavior are excessive chit-chatting, sleeping, disturbing another student or engaging in behaviors deemed disruptive by the instructor. Offending students will be asked to leave the class, treated as absent for the class, and may be dropped from the course if the behavior is repeated.
 - Cell phones must be put away during class time. Students using cell phones in class may be asked to leave and treated as absent for the class.

Grades and Assessments: The grading scale for the course is standard.

- A– 90-100%
- B– 80-89%
- C– 70-79%
- D– 60-69%
- F– 0-59%

A student's overall grade is calculated using the following weighted categories:

HW Avg.	20%
Midterm Exams 1, 2, 3, 4	15% each
Final Exam	20%

- **Homework:** A set of recommended homework problems will be given each week. A sampling of six homework assignments will be collected and graded, but it is essential that you try them all. Math is not a spectator sport. You cannot learn mathematics without trying problems on your own. Homework problems can be a great way to determine your understanding. They can also help you determine areas of difficulty. Homework problems are chosen to represent the concepts to be mastered in the course. Thus, exams will contain problems that closely model homework problems.
- **Midterm Exams:** There are four midterm exams, see the schedule below for dates. These exams are during regular class time. The midterm exams have a free response format so that students may earn partial credit. In the rare case that a student should miss an exam due to an emergency, a make-up exam may be given at the instructor's discretion. The student must provide appropriate documentation for missing an exam.
- **Final Exam:** The final exam is **comprehensive**. The format is also free response so that students may earn partial credit. The final exam is taken in the usual classroom, but is held at a special time. See the final exam schedule for details <http://www.centralmethodist.edu/academics/catalog/clas-catalog/policies/finals-schedule.php>.

Schedule with homework assignments

Week 1 (8/20-8/24), Sections P.1-P.3: p-14/9,11,15,21,35,61,77,96; p-28/7,13,20,30,32,58,62,73,77;
p-42/9,12,18,28,63,74,81,91,98,1-6,109,113

Week 2 (8/27-8/31) Sections P.4-P.6: p-54/7,14,15,23,29,54,62,75,78; p-66/7,11,17,23,31,41,51,57,83;
p-77/9,17,25,43,51,57

Week 3 (9/4-9/7) Sections 1.1-1.3 **Labor Day: Monday, Sept. 3: No Classes**
p-91/13; p-104/1,9,21,29,47,57,91; p-118/5,7,67

Week 4 (9/10-9/14) Sections 1.4-1.6: p-127/1,13,19,25,37,51; p-144/3,11,15,17,25,47,65,89,97,101,103,107
p-160/5,11,15,25,33,43,47,71

Week 5 (9/17-9/21) Section 1.7 and 2.1: p-175/29,35,49,55,67,89; p-197/29,37,51,55,59,61,77,81

Week 6 (9/24-9/28) Sections 2.2-2.3: p-211/7,19,25,27,29,45,49,61; p-227/15,25,27,41,49,51,59,67
Exam 1: Ch. P and 1, Mon. Sept 24

Week 7 (10/1-10/5) Sections 2.4-2.6: p-238/5,7,11; p-253/17,25,31,53,55,57,65,85,103;
p-266/7,15,21,35,47,53,5,59,63,67

Week 8 (10/8-10/12) Section 2.7-2.8: p-278/3,7,10,11,19,27,57; p-286/1,19,31,41,45,49

Week 9 (10/15-10/19) Sections 3.1-3.3: p-309/9,13,23,39,59; p-322/25,31,33; p-335/5,7,13,15,43,45
Exam 2: Ch. 2, Mon. Oct. 15

Week 10 (10/22-10/26) Sections 3.4-3.6: p-347/5,7,25,27,31,45; p-366/23,31,69,71; p-378/1,11,39,49

Week 11 (10/29-11/2) Section 4.1-4.2: p-408/11,13,25,27,35,37,39,41,47,53; p-421/1,7,9,15,31,41,53,65,67,73,75

Week 12 (11/5-11/9) Sections 4.3-4.4: p-431/3,5,11,17,19,27,35,39,47,61;
Exam 3: Ch. 3, Mon., Nov. 5

Week 13 (11/12-11/16) Sections 4.5 and 5.1-5.2: p-455/7,9,11,13,17,21; p-478/7,23,27,45; p-488/1,5,13,17,19

Week 14 (11/19-11/23) **Thanksgiving week** no classes

Week 15 (11/26-11/30) Section 5.3-5.5: p-499/1,5,13,33,39,41; p-507/1,5,29,31; p-517/1,7,17,31,39
Exam 4: Ch. 4, Mon. Nov. 26

Week 16 (12/3-12/7) Review
Final Exam Date to be announced