

BROWARD COLLEGE
CENTRAL CAMPUS
MATHEMATICS DEPARTMENT

MAC 1105 COLLEGE ALGEBRA
Meeting times: MW 3:30pm–4:45pm

Reference #567705
Meeting place: Bldg. 1008 / 336

SYLLABUS AND COURSE OUTLINE

SPRING 2017

INSTRUCTOR: **Professor Orr**

PHONE **305-237-2013 (at MDC; phone mail available)**

EMAIL **dorr@broward.edu**

WEBPAGE **<http://faculty.mdc.edu/dorr>**

OFFICE **7 / 211 and 1008 / 336**

OFFICE HOURS **MW 1:30pm–2:00pm (in 7 / 211) and 4:45pm–5:00pm (in 1008 / 336)**

TEXTBOOK: *College Algebra Essentials*, 1st edition, by Julie Miller, McGraw Hill publisher.

PREREQUISITE: MAT 1033 (Intermediate Algebra), with a grade of “C” or better, or adequate score on a placement exam.

ASSISTANCE:

The Math Lab is located inside the Library, Bldg. 17, Room 217, and the STEM Center is in Room 160 of the same building. Assistance at these locations is available seven days per week. This is an excellent resource for you to use when you cannot attend my office hours.

HOMEWORK:

Homework will be assigned at the end of each class meeting. (Problem numbers are listed in the course outline on the last page of this document, after the title of each section.) This is **not online homework**. This is pencil-and-paper homework involving problems in your textbook. The assigned homework problems constitute a list of the things you will be expected to know how to do. Although the homework assignments will not be collected or graded, you must complete these assignments in order to learn the course material and prepare yourself for the exams. Questions appearing on the exams will be similar to those encountered in the homework. If you do not complete at least a majority of the assigned homework, you will almost certainly fail the course.

TESTS:

There will be four unit-tests given throughout the semester, plus a comprehensive final exam. Each test, including the final exam, will determine 20% of your grade. In order to be counted, **each test must be taken in class at the scheduled time**. Under no circumstances will you ever be permitted to take a test after the rest of the class has completed it. If you miss a test, a score of **zero** will be recorded. However, at the end of the semester, the *single lowest score* among the four unit-tests *will be replaced* by the final exam score, provided this works to your advantage. (Note: When the final exam score replaces a lower test score, the result is that the final exam carries additional weight; it counts once in its own behalf, and once again for the score it replaces.)

You should understand that the purpose behind this policy is *not* to allow you to discard a low test score, but rather to allow you to compensate for *missing* an exam without the need for a makeup. The feature of replacing a low score is

merely an accidental bonus that you earn by not missing any exams. If you *do* miss an exam, regardless whether you were “at fault”, then the resulting score of 0 becomes the lowest score and will automatically be replaced by the final exam score. One result of this policy is that it is always to your advantage to sit for an exam, even if you are under-prepared or not feeling well.

All tests will be of the “free response” variety. (No multiple choice, no matching, no true-false questions.) Although correct answers are certainly necessary to receive full credit, most of the credit awarded for each test question will be for the manner in which you *illustrate your thought process*. A correct answer with little or no supporting work is virtually worthless, while an incorrect answer with clear and sensible supporting work (but with some sort of minor error) may be worth almost full credit. Keep this in mind as you complete your homework assignments. The more thoroughly and carefully you work out the homework problems, the better you will do on your exams.

FINAL EXAM:

A comprehensive final exam will be administered during final exam week. The final exam will be *mandatory*, and will thus determine at least 20% of your grade for the course. It is absolutely imperative that all students take the final exam at the appointed time. Please do not make personal plans that will conflict with the final exam. If you do, you will receive no sympathy.

GRADES:

You may exercise your option to drop the class with a “W” grade, provided you initiate such action no later than Friday, March 24. If you have not withdrawn from the class by that date, I will be required to assign you a grade at the end of the term. I will calculate your average according to the rubric above and translate the result into a letter grade. The most stringent grade scale I will enforce is as follows:

- A — 88% or better
- B — 76%–87%
- C — 64%–75%
- D — 52%–63%
- F — below 52%.

If you do not sit for the final exam, I reserve the right to assign you an “F” grade regardless of your semester average.

ATTENDANCE:

You are expected to attend all class meetings. Furthermore, you are expected to arrive on time and not to leave until class is dismissed. Your grade will *not* be directly affected by your attendance record. However, there are certain conditions under which I have the right to purge you from my roll by assigning you a “W” grade. Those conditions are defined in the next paragraph. Please note that these are conditions under which I have the *option* to purge you, but there is no guarantee that the option will be carried out. If you decide that you actually *desire* a “W” grade, you are responsible for *initiating* the withdrawal process by March 24. If you simply abandon the class without formally withdrawing, you run the risk of receiving an “F” instead of a “W”.

There are four conditions under which you may be purged from my roll:

1. If you miss an exam, together with the class meeting immediately before or after the exam; or
2. If you miss more than one exam; or
3. If you are absent from three or more consecutive class meetings; or
4. If at any point in the semester on or after the day of the first exam, your cumulative rate of attendance drops below 70%.

I will typically take attendance at the very beginning of each class period; if you are not present when your name is called, then you will be marked absent. If you enter the classroom after your name is called, or if you leave before class is dismissed, you will be marked 70%-present for that day, which has an effect on your cumulative rate of attendance. Note: if you arrive after the roll is called, it is your responsibility to notify me of your presence at the end of the period. This notification must be given during the class meeting in question, or else the record will show you absent. I will not alter the attendance record after the fact.

If you are so unfortunate as to become eligible for purge at any time, it will be up to my sole discretion whether to actually purge you immediately or to exercise some leniency. My decision will be based on my assessment of your chances of passing the course, which will certainly be influenced by your academic performance. However, **the primary reason for purging any student will always be poor attendance, not poor performance.** As long as you continue to meet my attendance requirements, you will never be purged from my roll, regardless of your exam performance. On the other hand, if you once become eligible for purge, you will remain eligible for the rest of the semester, even if your attendance rate subsequently improves, and it will be my right to purge you at any time thereafter if I deem it to be in our mutual best interest. Note that I am not allowed to purge any student after March 24.

CLASSROOM DECORUM:

You should not talk to other students when class is in session. Frequently I will address Math-related questions to the class at large, and I encourage you to respond to those questions freely, without raising your hand for permission. However, if you have any other sort of comment or question, I expect you to raise your hand and wait until you are called upon before speaking.

CELL PHONES:

I expect you to **TURN OFF YOUR CELL PHONE AND PUT IT AWAY** before class begins. Please note that “off” means **OFF**—not “vibrate” mode. You may not use your cell phone as a calculator. You may not have your cell phone on your desk, in your hand, or in your lap while class is in session. Your cell phone should be completely invisible and inaudible to you and to me at all times. This policy extends to other electronic devices, such as ipods, ipads, laptop computers, etc. There should be no source of stimulus, input, or information available to you during class other than a hard copy of your textbook and the content of my lecture. Violators of this policy may be asked to leave the room and not to return until the next class meeting.

CALCULATORS:

You will be allowed to have a scientific calculator for use on homework and exams. However, **GRAPHING CALCULATORS ARE NOT ALLOWED ON EXAMS.** If I see a graphing calculator on your desk or anywhere within arm’s reach during an exam, it will be my right to confiscate your exam paper and assign it a zero grade.

INCOMPLETES:

The Incomplete grade is almost never given. Do NOT expect to avoid a low grade by requesting an Incomplete grade at the last minute. In order to qualify for an Incomplete grade, you must be (a) passing the course at the time the grade is negotiated; (b) be so near the end of the course that you require no further instruction; and (c) have an excellent and documented reason for not being able to finish the course on schedule. Even in those very rare instances when an Incomplete grade is issued, it does *not* allow you to retake any exams that have already been scored, nor does it allow you to attend any class meetings during the following semester. It simply allows you to come back after the semester has ended to sit for the exam(s) missed at the very end of the term due to extenuating circumstances.

UNPAID STATUS:

Even if you are expecting financial aid, it is *your responsibility* to ensure that you are properly registered, **with fees paid** by whatever deadline the College has established for you.

If you are not yet registered for this class, please be aware that the last day to register is Thursday, January 19. If you have not registered by that date, then you will not be able to register at all.

COURSE OUTLINE

Please note: Test dates are given for your convenience only. I reserve the right to make changes in the test dates as needed. Any changes will be announced in class as early as possible. The numbers in parentheses following each section title are the homework assignments.

<u>WEEK</u>	<u>CHAPTER/SECTION</u>	<u>TOPIC</u>
1	R.7 1.1 1.3	Rational expressions (25, 27, 31–69 odd) Rational equations (49–67 odd) Complex numbers (17–39 odd, 45–53 odd, 59–101 odd)
2 (Monday, Jan. 16)	HOLIDAY 1.4	<i>Martin Luther King Day</i> Quadratic equations (15–51 odd, 57–71 odd, 99–105 odd)
3	1.5 1.6	Applications of quadratic equations (17–23 odd, 33–37 odd) More equations (19–25 odd, 31–49 odd, 55–63 odd)
4 (Wednesday, Feb. 1)	1.8 TEST	Absolute value equations and inequalities (33–55 odd) Test #1 (§R.7, 1.1, 1.3–1.6)
5	2.1 2.2 2.3	The rectangular coordinate system (11–21 odd, 45–65 odd) Circles (15–33 odd, 43, 45, 47) Functions and relations (21–37 odd, 41–67 odd, 73–81 odd, 85–111 odd)
6	2.3 2.6	Functions and relations (21–37 odd, 41–67 odd, 73–81 odd, 85–111 odd) Transformations of graphs (15–79 odd)
7	2.7 2.8	Analyzing graphs of functions and piecewise-defined functions (13–71 odd) Algebra of functions and function composition (11–47 odd, 51–75 odd, 89–105 odd, 123, 125)
8 (Monday, Feb. 27)	TEST 3.1	Test #2 (§1.8, 2.1–2.3, 2.6, 2.7) Quadratic functions and applications (9–35 odd)
9 (Monday, Mar. 6) (Wednesday, Mar. 8)	NO CLASS NO CLASS	<i>Spring Break</i> <i>Spring Break</i>
10	3.3 3.6 4.1	Long division of polynomials (19–29 odd) Polynomial and rational inequalities (11, 13, 19, 21–31 odd, 47, 51–83 odd) Inverse functions (11–27 odd, 37–41 odd, 47–65 odd)

Reminder: Thursday, March 24 is the last day to drop with a “W” grade.

11	4.1 4.2	Inverse functions (11–27 odd, 37–41 odd, 47–65 odd) Exponential functions (25–67 odd)
12 (Wednesday, Mar. 29)	4.3 TEST	Logarithmic functions (19–91 odd) Test #3 (§2.8, 3.1, 3.3, 3.6, 4.1, 4.2)

<u>WEEK</u>	<u>CHAPTER/SECTION</u>	<u>TOPIC</u>
13	4.3 4.4	Logarithmic functions (19–91 odd) Properties of logarithms (17–45 odd, 49–67 odd, 79–83 odd, 89–97 odd)
14	4.5 5.1	Exponential and logarithmic equations (11–67 odd, 73, 85–91 odd) Systems of linear equations in two variables (11–57 odd)
15	5.2 5.5	Systems of linear equations in three variables (15–19 odd, 23, 37, 39, 43, 45) Inequalities and systems of inequalities in two variables (19, 23, 27, 29, 47, 49, 53)
16	----	Review
(Wednesday, Apr. 26)	TEST	Test #4 (§4.3–4.5, 5.1, 5.2, 5.5)
17 (Wednesday, May 3, <u>2:30pm</u>)	EXAM	Final Exam (Comprehensive)

Note: The final exam period is from 2:30pm to 4:20pm on Monday, May 3!!