INSTRUCTOR: Professor Orr

OFFICE: Room 3212-01

PHONE: 305-237-2013

EMAIL: dorr@mdc.edu

WEBPAGE: http://faculty.mdc.edu/dorr

OFFICE HOURS: MWF 6:30am–8:00am; 12:20pm–12:50pm


PREREQUISITE: MAC 1105 (College Algebra), with a grade of “C” or better, or adequate score on a placement exam.

HOMEWORK: Copious quantities of homework will be assigned at the end of every class meeting. (Problem numbers are in parentheses after the title of each section in the course outline below.) The assigned homework problems constitute a list of the things you will be expected to know how to do. The only way to ensure that you know how to do something is to actually do it on a regular basis. 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. If you don’t perform at least the majority of the assigned homework, you can expect to fail the course. Questions appearing on the exams will be similar to those encountered in the homework.

TESTS: There will be four unit-tests given throughout the semester, plus a comprehensive final exam. Each of the first three unit-tests will take place during the last 75 minutes of the class period, with the first hour being devoted to questions over past assignments and presentation of new material. The fourth unit-test will be administered on the same day as the final exam, and you will be allowed the entire class period to complete the two tests combined. All tests, including the final exam, will carry equal “weight”. In order to be counted, each test must be taken in class at the scheduled time, unless alternate arrangements are made in advance. 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 first three 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 double “weight”; it counts once in its own behalf, and once again for the score it replaces.) Please note also that the fourth unit-test score will not be replaced by the final exam score, even if it is the lowest of them all.

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 a 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 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 are doing 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 the last scheduled class meeting. The final exam will be mandatory, and will thus determine at least one fifth 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. (Note: There will actually be two exams administered during the last class meeting. The first will be a standard test over the fourth unit of the course, and the second will be a comprehensive final exam. Each will be worth 100 points.)

GRADES:
You may exercise your option to drop the class with a “W” grade, provided you initiate such action no later than Thursday, June 4. 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 the average of your test scores 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 “WI” grade. (“WI” stands for instructor-initiated withdrawal.) 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 June 4. If you simply abandon the class without formally withdrawing, you run the risk of receiving an “F” instead of a “WI”.

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 after the first exam, your cumulative rate of attendance drops below 70%.

I will normally 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. 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 impression of your attitude and your level of effort, which may well in turn 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 Wednesday, June 10.

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 WAY 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 need 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, I reserve the right to confiscate your exam paper and assign it a zero grade.

INCOMPLETES:
The so-called “I” (i.e., 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 “I” grade, you must be (a) passing the course at the time the “I” 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 “I” 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 see that you will be unable to pay your fees by your payment deadline, or if you fear that your financial aid may not be in place, then you should go to the Dean of Students’ Office to request an extension of your deadline. If your fees are not paid by the deadline, you will be voided from the roster and I will have to ask you to stop attending the class. I reiterate that, even if you are expecting some form of financial aid, payment of your fees is your responsibility. If you are voided from my roster for non-payment at any time on or after the first day of classes, then you absolutely, positively, will not be able to reinstate yourself, because I do not sign override cards.
**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.*

<table>
<thead>
<tr>
<th>WEEK</th>
<th>CHAPTER/SECTION</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.1</td>
<td>Functions (39–62, 75–88)</td>
</tr>
<tr>
<td></td>
<td>3.4</td>
<td>Library of functions; piecewise-defined functions (9–38, 41–44)</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>Graphing techniques: transformations (7–34, 39–60)</td>
</tr>
<tr>
<td></td>
<td>5.1</td>
<td>Polynomial functions and models (15–86)</td>
</tr>
<tr>
<td></td>
<td>5.2</td>
<td>Properties of rational functions (13–30, 43–54)</td>
</tr>
<tr>
<td></td>
<td>5.3</td>
<td>The graph of a rational function (7–12, 15–48)</td>
</tr>
<tr>
<td>2</td>
<td>R.6</td>
<td>Synthetic division (5–26)</td>
</tr>
<tr>
<td></td>
<td>5.5</td>
<td>The real zeros of a polynomial function (11–68, 77–80)</td>
</tr>
<tr>
<td></td>
<td><strong>TEST</strong></td>
<td>Test #1 (§3.1, 3.4, 3.5, 5.1–5.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.6 Complex zeros: Fundamental Theorem of Algebra (7–40)</td>
</tr>
<tr>
<td>3</td>
<td>(Monday, May 25)</td>
<td><strong>HOLIDAY</strong> Memorial Day</td>
</tr>
<tr>
<td></td>
<td>6.3</td>
<td>Exponential functions (33–84)</td>
</tr>
<tr>
<td></td>
<td>6.4</td>
<td>Logarithmic functions (9–70, 87–110)</td>
</tr>
<tr>
<td></td>
<td>6.5</td>
<td>Properties of logarithms (13–78, 87–96)</td>
</tr>
<tr>
<td></td>
<td>6.6</td>
<td>Logarithmic and exponential equations (5–60, 75–84)</td>
</tr>
<tr>
<td>4</td>
<td>(Monday, June 1)</td>
<td><strong>TEST</strong> Test #2 (§R.6, 5.5, 5.6, 6.3–6.5)</td>
</tr>
<tr>
<td></td>
<td>6.7</td>
<td>Compound interest (7–42)</td>
</tr>
<tr>
<td></td>
<td><strong>TEST</strong></td>
<td>Test #2 (§R.6, 5.5, 5.6, 6.3–6.5)</td>
</tr>
<tr>
<td></td>
<td>6.8</td>
<td>Exponential growth and decay models (1–12, 19, 21)</td>
</tr>
<tr>
<td></td>
<td>2.4</td>
<td>Circles (7–42)</td>
</tr>
<tr>
<td></td>
<td>11.1</td>
<td>Conics (no assignment)</td>
</tr>
<tr>
<td></td>
<td>11.2</td>
<td>The parabola (11–74)</td>
</tr>
<tr>
<td></td>
<td><strong>Reminder:</strong> Thursday, June 4 is the last day to drop with a “W” grade.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>(Friday, June 12)</td>
<td><strong>TEST</strong> Test #3 (§6.6–6.8, 2.4, 11.2–11.4)</td>
</tr>
<tr>
<td></td>
<td>11.3</td>
<td>The ellipse (11–74)</td>
</tr>
<tr>
<td></td>
<td>11.4</td>
<td>The hyperbola (15–74)</td>
</tr>
<tr>
<td></td>
<td>12.2</td>
<td>Systems of linear equations: matrices (5–72)</td>
</tr>
<tr>
<td></td>
<td>13.1</td>
<td>Sequences (9–68)</td>
</tr>
<tr>
<td></td>
<td><strong>FINAL</strong> Final Exam (comprehensive exam over all topics prior to §12.2)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>(Friday, June 19)</td>
<td><strong>TEST</strong> Test #4 (§12.2, 13.1–13.5)</td>
</tr>
<tr>
<td></td>
<td>(Friday, June 19)</td>
<td><strong>FINAL</strong> Final Exam (comprehensive exam over all topics prior to §12.2)</td>
</tr>
</tbody>
</table>