Math 156 - Calculus 2

Sections 6, 404 and 405

Fall 2018



**Instructor Information:**

**Name:** Andrea Munaro

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**Office Hours:** M 3.30pm-5.30pm or by appointment

**Course Description**: Techniques of integration, applications of the definite integral, sequences and series, parametric curves, and polar coordinates.

**Prerequisites**: A grade of C or better in Math 154 or [MATH 1](http://catalog.wvu.edu/search/?P=MATH%20129)55. Be sure to check your mix e-mail during the first week of classes. If the department believes that you do not meet the prerequisites, you will receive an e-mail and will be required to show documentation of how you meet the prerequisites. If you do not provide the appropriate documentation, you will be dropped from this course.

**Course Materials:**

1. *Textbook*: Calculus: Early Transcendentals, 8 th Edition, by James Stewart. Instead of purchasing a hard copy, you are welcome to purchase access to the e-book, available through WebAssign. This is the same textbook that is used in Math 153, 154, 155 (Calculus 1) and will be used in Math 251 (Calculus 3).
2. *Calculator*: Calculators will NOT be allowed on exams.
3. *WebAssign*: This is the online homework system that we will be using this semester. You are required to purchase access to this system for this class. Everyone has free access for two weeks, but **fees must be paid by the end of the second week of classes**.

**Evaluation & Grade Assignment:** Throughout this course, you will be graded not only on your ability to obtain the correct answer to a problem, but also on your ability to use the problem solving methods taught in this course and your ability to justify your work. **A correct answer without the supporting work will be given no credit.** This applies to exams, homework, quizzes, and in-class activities. When in doubt, show all the steps!

Your course grade will be broken into the following components.

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| **Grade Assignment** |
| A | 100.0-90.0 |
| B | 89.9-80.0 |
| C | 79.9- 70.0 |
| D | 69.9-60.0 |
| F | Less than 60 |

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| **Evaluation** |
| Exams  | 50% |
| Comprehensive Final Exam | 30% |
| Quizzes | 10% |
| WebAssign Homework  | 10% |

In order to receive a grade of C or higher at the end of the semester, a student must score at least 50% on the final exam.

**Testing Procedures:** There will be four tests and a comprehensive common final exam. All exams will take place during the coordinated evening time on **Thursdays from 7:00-8:30 PM**, location TBA.

Test 1 Thursday, September 13

Test 2 Thursday, October 4

Test 3 Thursday, October 25 (subject to change)

Test 4 Thursday, November 15

**Final Exam will be on Monday, December 10, 2018, 8:00 PM – 10:00 PM.** Final Exam is common for all sections of Math 156. CALCULATORS WILL NOT BE PERMITTED ON ANY EXAM OR FINAL.

**Exam Makeup Policy:** There are no make-up exams.

Only students with valid university sanctioned absences will be given an opportunity to make up the missed exams. an exam **if**documentation is provided prior to the exam date (preferably at least one week prior).  The date/time of the makeup exam will be arranged on an individual basis, and is likely to be scheduled prior to the class test date.  No other makeup exams will be given. If you miss an exam, your grade will be recorded as a zero.

If you know of a day that you will be missing class due to a university sanctioned absence, please send me an e-mail ASAP, and I will try to schedule exams accordingly.

**Lowest exam score replacement:** All students will have the opportunity to have their lowest test grade replaced by the lower of the final exam percentage, and the average of the three remaining test scores.

**Quizzes:** There will be take-home quizzes during the semester (either 3 or 4, the exact number to be determined). Each quiz is worth 10 points. The top 2 quiz scores will be counted for each student. **There are NO make-up quizzes.**

**WebAssign Homework:** This is the online homework. Late work will be accepted 24 hours after the due date for 70% credit. Even on assignments not yet fully completed, any work finished before the due date will not have credit deducted. You will have 15 attempts per question. There will be a link in eCampus directing you to WebAssign. If you have an old WebAssign account and log in there is information on eCampus on how to link the two accounts.

**Social Justice Statement:** The West Virginia University community is committed to creating and fostering a positive learning and working environment based on open communication, mutual respect, and inclusion.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in your classes, please advise your instructors and make appropriate arrangements with (<https://accessibilityservices.wvu.edu/>).

Please note that your instructor will give a copy of this paperwork to the course coordinator.

More information is available at the [Division of Diversity, Equity, and Inclusio](http://diversity.wvu.edu/)n (https://diversity.wvu.edu/).

**Students requesting special accommodations are required to inform the instructor at least 72 hours in advance of a test.**

**Intellectual Property Notice:** All course materials, including lectures, class notes, quizzes, exams, handouts, presentations, and other materials provided to students for this course are protected intellectual property. As such, the unauthorized purchase or sale of these materials may result in disciplinary sanctions under the Student Conduct Code.

**Adverse Weather Statement:** In the event of inclement weather, everyone should use his or her best judgment regarding travel to and from campus. Safety should be the main concern. If you cannot get to class because of adverse weather conditions, you should contact me as soon as possible. Similarly, if I am unable to reach our class location, I will notify you of any cancellation or change as soon as possible to prevent you from embarking any unnecessary travel. If you cannot get to class because of the weather conditions, I will make allowances relative to any scheduled tests or quizzes.

**Academic Integrity:** The integrity of the classes offered by any academic institution solidifies the foundation of its mission and cannot be sacrificed to expediency, ignorance, or blatant fraud. Therefore, instructors will enforce rigorous standards of academic integrity in all aspects and assignments of this course. For the detailed policy of West Virginia University regarding the definitions of acts considered to fall under academic dishonesty and possible ensuing sanctions, please see the **Student Conduct Code at http://studentconduct.wvu.edu**.

Should you have any questions about possibly improper research citations or references, or any other activity that may be interpreted as an attempt at academic dishonesty, please see your instructor or the course coordinator *before* the assignment is due to discuss the matter.

**The following directions apply to ALL tests in Math 156.**

* All students must present their WVU ID to take any exam. All IDs will be verified for each exam.
* Each student must keep her or his Student ID clearly visible during the exam.
* Students must not to have any electronic device on their person during testing unless, at least one full day before the test, the instructor has agreed that such device is a medical necessity.
* During the test, backpacks/purses/etc. must will need to be closed and remain in the designated location.
* Students must keep their hands on or above the desk when the exam is in progress.
* Students must keep their eyes on their own paper and off other students’ work.
* In the room, no communication between students is permitted from the time distribution of papers has started until they have left the building in which the test took place.
* Students may not leave and return during the test for any reason. If you leave the room your test must be handed in and you will not be able to come back and complete it. If you have any condition that makes it impossible for you to sit during an entire testing time, an accommodation must be endorsed by the Office of Accessibility Services at least one full day before the test.
* Students must leave the test room immediately after they have submitted the completed paper. They must not loiter near the test room.
* To receive credit for an answer, appropriate work must be shown. You must use methods learned in class this semester. Correct answers without supporting work will be given no credit.
* The instructor has the right to request any student on any assessment to verify answers on the assessment at any time.

**Academic Integrity Sanctions: Students that do not abide by the above standards will be subject to sanctions according to the Office of Student Conduct. All offenses will reported** to the Office of Student Conduct and department advisor.

Any violation(s) of WVU’s Academic Dishonesty Policies can result in additional penalties (probation, suspension, or expulsion).

* Students found in **communication** with another student or outside party during a test or quiz will **receive a zero for the assessment**. Any repeat offensive will earn an F or unforgivable F in the course.
* Students found with an **unpermitted calculator will receive a zero** for the assessment. Any repeat offensive will earn an F or unforgivable F in the course.
* Students **accessing their backpack without authorization will earn a zero** on the assessment. Any repeat offensive will earn an F or unforgivable F in the course.
* Any student without a **WVU ID** will not be permitted to take the exam.
* If a student **arrives late**, it is at the discretion of the instructor if a makeup can be given.
* Students found in **possession on or about their person of an electronic device** such as a cellphone or watch **will be punished up to an unforgivable F in the course**.
* Students found using any **unauthorized resources** will receive an **F or unforgiveable F in the course.**
* Any students that attempts to **conceal/alter/misrepresent their identity** will receive **an F or unforgiveable F in the course.**

**Help outside the Classroom:** There are several ways to seek help with Math 156.

1. You may attend the office hours.
2. You may also stop by the Math Learning Center, 301 Armstrong, where you may receive FREE tutoring from the graduate teaching assistants and undergraduate math majors. Hours of operation are posted at the MLC. This is a *great* place to work on your homework alone or with classmates!
3. You are able to use the IML Computer Lab during open lab hours. These times will be listed on the course website. Tutors are often available in this location.
4. Tutoring is available in the University Learning Centers in the residence halls.
5. You may wish to hire a private tutor. Several graduate students are available for tutoring. A list of tutors is available in the Math Office, 320 Armstrong Hall.

**Math 156: Calculus 2**

**Learning Outcomes**

As part of the General Education Foundations (GEF) curriculum, this course incorporates LEAP Learning Outcomes in addition to the specific learning outcomes for this course.

**LEAP Essential Learning Outcome 2: Intellectual and Practical Skills:** *WVU GEF courses incorporating LEAP Essential Learning Outcome 2 teach at least one intellectual or practical skill relevant for modern life, and explicitly describe to students what it is and where it is applicable.*

In Math 156 course students will:

* Learn how to analyze a problem in order to select an appropriate solution strategy.
* Compare and contrast multiple solution methods to determine accuracy and efficiency.
* Learn how to effectively communicate mathematical ideas and solutions in written form.

**Other Math 156 Specific Learning Outcomes**

Upon successful completion of this course, students will be able to:

1. Apply techniques of integration to various integral problems.
2. Recognize and calculate the limit of a sequence.
3. Recognize series and apply appropriate convergence tests to solve series problems.
4. Represent functions as power series.
5. Move fluently between Cartesian and Polar coordinate systems and parametric equations.
6. Use integrals to solve application problems involving (but not limited to) area, volume, average value, arc length.