

# Math 152-01: Calculus II

MTThF 8:15 – 9:05 AM; DA 113

Fall 2018

**Professor:** Dr. Catherine Crawford

**Contact Information:** DA 209C, 630-617-3479, [crawford@elmhurst.edu](mailto:crawford@elmhurst.edu)

**Office Hours:** Monday 10:00 – 11:30 AM; Tuesday 12:30 – 1:30 PM; Thursday 1:00 – 2:00 PM; or by appointment

**Webpage:** <http://crawford.elmhurst.edu>

**Course Description:** This is the second course in calculus. Topics include transcendental functions, techniques of integration, infinite sequences and series, and parametric equations and polar coordinates. **Prerequisite:** Math 151 Calculus I, or equivalent, **with a grade of C or better.**

**RequiredText:** *Calculus 8<sup>th</sup> Edition* by James Stewart. We will be covering chapters 6, 7, 10, & 11. Selected sections of chapters 8 and 9 will also be presented. **Optional:** Single Variable Calculus Student Solutions Manual

**Calculator:** A graphing calculator with trigonometric, logarithmic, and exponential functions is recommended (e.g. TI-84, Casio 9750, etc.). Calculators are typically **not** allowed on quizzes or exams.

**Grading:** Your final letter grade for the course will be based on the percentage of total points earned\*.

<b>Quizzes/(Labs &amp; Projects)</b>	<b>100 pts</b>	<i>Tentative<sup>†</sup>Dates:</i> 9/11, 10/2, 10/30, 12/4
<b>Homework Checks/(Lecture Questions)</b>	<b>50 pts</b>	<i>Tentative<sup>†</sup> Dates:</i> 9/4, 9/25, 10/9, 10/23, 11/6, 11/27
<b>3 Exams</b> (100 pts each)	<b>300 pts</b>	<i>Tentative<sup>†</sup> Dates:</i> <b>9/18, 10/16, 11/13</b>
<b>Final Exam</b> (cumulative)	<b>200 pts</b>	Wednesday, 12/12 at 8:00-10:00 AM
	<b>650 pts</b>	

Excessive and consistent disruptions (e.g. tardiness, leaving class for drinks or the restroom, cell phones, etc.) may result in lowering your grade up to one full letter grade. **All cell phones must be turned completely off and put away.** *Having a cell phone out during an exam or quiz will result in an automatic 0 grade for the exam or quiz.*

**Exams and Exam Replacement Policy:** You must take all exams in class on the announced dates (*subject to change at my discretion*). **No make-up exams will be allowed.** You will have the option of replacing your lowest exam score with your final exam percentage (if this is to your benefit), *so there is no need for make-up tests. You will not be allowed to take an exam early or late for any reason.* If you miss any exam(s), your final percentage will serve as the score for the missed exam(s). Only the missed exam score(s) will be replaced. The final exam score cannot be replaced.

**Quizzes/(Labs & Projects):** Quizzes will be given during the first 15-20 minutes of class. *You will not be allowed to take a quiz early or late for any reason.* A score of zero will be recorded for each missed quiz. Your lowest quiz score will be dropped. Occasionally I may assign a lab or a project that will typically be done outside of class. Each lab or project will count as one quiz, however *you will not be allowed to drop a lab or project grade.* The total points of your remaining quizzes and any labs/projects will be scaled to 100 points.

**Homework Checks/(Lecture Questions):** Although homework problems will typically be assigned every class, I will not be collecting it each class (see Homework Check dates above). **So you must be disciplined to keep up with the assigned homework.** You will often work on in-class worksheets that I also do not normally collect – you will be given advance notice if worksheets will be turned in. The dates for Homework Checks may change or additional Homework Checks/Worksheets may be given – you will be given advance notice. **On Homework Check due dates, you will turn in all of the assigned homework requested for that week.** I will grade a few problems for accuracy and supporting work – usually no credit is given for answers only. The remaining ungraded

\* Note: For those of you planning to take Calculus III, there is a **prerequisite** of a C or higher grade in Calculus II.

† Dates subject to change at my discretion.

problems may be observed to assess effort and affect the grade. ***It is your responsibility to do your homework in a neat and organized manner.*** You may turn in the homework by **4:00pm** (unless otherwise noted) on the due date without penalty. ***You will not be allowed to turn in homework late for any reason.*** If you know that you will miss a scheduled Homework Check, then you may turn in all relevant homework ***before 4:00pm*** – either in person, under my door, or via email. A zero will be recorded for each missed Homework Check. For every 3 Homework Checks (and worksheets graded as Homework Checks), I will drop 1. **Lecture Questions:** You will be given several Lecture Questions/Worksheets during the semester. Some of them will be handed out at the end of class and due the next day at the beginning of class. They are typically brief questions that pertain to a previous lecture or will prepare you for the next day's lecture. They will be worth 5 points each. For every 3 that are graded, I will drop 1. *Late Lecture Questions will not be accepted.* The remaining total of your Homework Check and Lecture Question scores will be scaled to 50 points.

**Policies and Academic Integrity:** You are expected to adhere to the College Academic Integrity Policy as stated in the *E-Book* as it applies to this class. For example, *obtaining or attempting to use unauthorized materials or information or unauthorized help from another person or source is considered cheating.*

- Test and quizzes, whether take-home or in-class, are to be your own work unless otherwise stated.
- Calculators and notes are not allowed on quizzes and tests unless otherwise stated. If calculators are allowed, you may not store any notes or unauthorized programs on the calculator.
- Having a cell phone out during an exam or quiz will result in an automatic 0 grade for the exam or quiz.
- **You may work with others on your homework and are encouraged to do so.** But you must turn in your own homework unless specifically stated as group work requiring one submission.
- Individual projects should be your own work. All group members should make quality contributions to group projects.

**Learning Center: Academic Support:** The Learning Center offers services to support the academic performance of all Elmhurst College students. Sessions are structured to promote principles of self-regulated learning and academic management. Areas of peer tutoring include math, statistics, writing, biology, kinesiology, and psychology. Additionally, assistance with special test preparation (e.g., ACT, SAT, GRE, and TAP) and academic reading/study strategies is available. For more information, contact Emmi McAdams, Tutoring Coordinator, at [emmim@elmhurst.edu](mailto:emmim@elmhurst.edu), 630-617-5376, or Susan Roach, Learning Center Director, at [susan.roach@elmhurst.edu](mailto:susan.roach@elmhurst.edu), 630-617-3155. The Learning Center is located in the Frick Center, Room 229.

**Access and Disability Services:** Elmhurst College will make reasonable accommodations for students with disabilities based on the presentation of appropriate documentation. If you believe that you have a disability that may impact your work in this course, contact Access and Disability Services at [disability.services@elmhurst.edu](mailto:disability.services@elmhurst.edu) or 630-617-6448. Access and Disability Services is located in the Frick Center, Room 229. *Then please contact me.*

**Learning Outcomes:** Upon successful completion of this course, students should be able to:

1. Apply calculus concepts of limits, differentiation, and integration to inverse and transcendental functions.
2. Identify indeterminate forms and appropriately apply l'Hospital's Rule.
3. Evaluate proper and improper integrals using various integration techniques.
4. Determine the convergence or divergence of infinite sequences or series. In particular, identify different types of series and apply the appropriate test(s) for convergence or divergence.
5. Find power series and Taylor series representations of functions and determine the interval of convergence.
6. Construct parametric and polar curves and further analyze them using calculus techniques including differentiation and integration.