

# Calculus II

Loyola University Chicago – Math 162.004 – Spring 2011  
Course Syllabus & Ground Rules

## Course Details

Class Meetings: Mundelein Hall, Room 304; TuTh 1:00–3:45 p.m.

Office Hours: Loyola Hall, Room 302; TuTh 9:00–9:50 a.m. and 12:00–12:50 p.m.

FINAL EXAM:

- what: cumulative, closed-book, closed-notes, approved calculators allowed.
- when: Thursday, May 5, 9:00 a.m.–11:00 a.m.

**Course Text:** M.D. Weir and J. Hass, *Thomas' calculus: early transcendentals*, 12th ed. (2010), ISBN# 978-0-321-62883-1, Pearson/Addison-Wesley Press. **MyMathLab bundle.**

## Instructor Coordinates

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<http://www.math.luc.edu/~lauve>

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## Contact

Communication by email is preferred. Include **162** in the subject line. Expect a reply within 48 hours.

## Course Web Page

This document and other information and materials relevant to the course are posted on the course web page (<http://www.math.luc.edu/~lauve/courses/162-sp2011/>).

## Important Dates

If you are unable to make any of the exam dates, please let me know as soon as possible.

Last day to drop with no penalty	<b>January 24</b>	Exam #1	<b>March 3</b>
Last day to drop with a “W”	<b>March 28</b>	Exam #2	<b>April 14</b>
Spring break	<i>3/8 &amp; 3/10</i>		
Last day of class	<b>April 28</b>	Final Exam	<b>May 5</b>

Requests to reschedule your final exam will be heard only for extenuating circumstances (e.g., **four** courses on one exam day) and must be made through your Dean’s office.

## Course Catalog & Syllabus

**COURSE CATALOG. Math 162 (4 units):** *A continuation of Calculus I; includes the calculus of various classes of functions, techniques of integration, applications of integral calculus, sequences and infinite series, and an introduction to differential equations.*

Prerequisites: Math 161 or Math Placement Test.

**SYLLABUS.** We cover most of Chapters 6–11 in the text (<http://www.luc.edu/math/Math162syll11.shtml>).

## Technology

A *TI-84 Plus* or equivalent graphing calculator is **required** for this course. I am also likely to use *Mathematica* during class. I will be happy to help you learn more about any tool that I use in class. The “ebook” that comes with MyMathLab contains video solutions to several exercises in each chapter.

## Course Components

**HOMEWORK.** Students will work and submit weekly homework exercises using the online system MyMathLab (<http://www.coursecompass.com>). Use **lauve45517** for the course ID when setting up your account and registering for this course. See the above link for instructions. We will cover approximately 34 sections in the textbook; your best 30 scores will be used to compute your final grade.

**GROUP WORK.** Roughly every two weeks, students will be asked to work in groups on more challenging problems. This work will begin during class, with a formal group solution submitted the following class period. These problems will be graded using the three criteria below (weights indicated).

*Accuracy (80%).* I hope this is self evident.

*Neatness (10%).* This is to show your grader some kindness (and respect). Write as legibly as you can; write in multi-column format very rarely, if ever; write only on one side of each page; staple your work together; submit tidy paper (i.e., no crinkles or spiral-bound jaggedness).

*Clarity (10%).* This is for practice communicating mathematics. Use complete sentences (often) and proper mathematical grammar (always). It takes time to learn how much to say (students say too much as often as not enough). Use the textbook solutions as a guide (e.g., Example 6 on page 45).

Please see the group work hints ([www.math.luc.edu/lauve/courses/162-sp2011/mathexpos.pdf](http://www.math.luc.edu/lauve/courses/162-sp2011/mathexpos.pdf)) for additional guidelines on producing a successful writeup. Your lowest score will be dropped when computing your final grade.

**QUIZZES.** There will be a short quiz roughly every two weeks on the most recent material. The dates will be announced in advance and posted on the course web page. Your lowest score will be dropped when computing your final grade.

**EXAMS.** There will be two midterm exams. The final exam will be cumulative.

## Course Grade

Your final course grade will be determined as indicated below.

- HOMEWORK (10%)    GROUPWORK (10%)    QUIZZES (10%)    MIDTERMS (2 × 20%)    FINAL (30%)
- Cutoff Grades (in %):    A (91)    A- (90)    B+ (88)    B (81)    B- (80)    C+ (78)    C (71)    C- (70)    D+ (68)    D (60)

### Getting Help

It may take awhile to adjust to the different style and pace of this course. My first piece of advice is to use your book well: learn the definitions and read the examples' solutions; think in terms of ideas (not formulas) when solving exercises; ask yourself, from time to time, “how does this topic contribute to the overarching themes of the course?” Most importantly, **solve LOTS of exercises** of varying difficulty.

Please, **SEEK HELP** if you are falling behind. Form study groups, visit the tutoring center (<http://www.luc.edu/tutoring/>), come to my office hours, find online resources, give me feedback, etc.

### Escape Routes

At any time, even after the last date for W-dropping the course, students who are experiencing medical or personal difficulties should not hesitate to consult their advisors or the Student Development Office or their dean. Don't allow yourself to be overwhelmed by such problems; Loyola has resource persons who may be able to help you.

## Disability Services

The Americans with Disabilities Act (ADA) is a federal statute that provides comprehensive civil rights protection for persons with disabilities. It requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please contact the SSWD office (<http://www.luc.edu/sswd/>) in the Sullivan Center: suite 117, phone 773.508.3700, fax 773.508.3810.

## Academic Integrity

The Academic Standards and Regulations web page

<http://www.luc.edu/academics/catalog/undergrad/reg.shtml>

outlines the definition and ramifications of cheating at Loyola University (the “Academic Integrity” link) as well as the recourses available to you should you be accused of cheating (the “Academic Grievance Procedure” link). By attending this course, you agree to uphold the high standards of Loyola. If you are found cheating on an exam, you will receive an F for the course and your academic dean will record the incident in your permanent file.

**GROUP WORK.** If the group problems begun in class are not finished in class, it is your responsibility to meet as a group outside of class to finish the solution and discuss how best to write it up. Assigning one group member to finish the solution and merely write your names on the finished product is *CHEATING!!* If I suspect this has occurred, individual group members will be called into the office to explain their solution or to solve similar problems; unsatisfactory performance by any member will result **minimally** in a grade of 0 on the assignment for **every** member of the group.

## Course Etiquette

Sleeping in class happens and is always forgiven. Reading newspapers or surfing the web is impolite and is a distraction to your instructor; please find a better use for your time. Please set your cell phones to “silent” upon entering class; these are a distraction to everyone. Likewise, talking with your neighbor while I am lecturing is **unacceptable**.

Finally, and most importantly, respect for others is *stressed* above all else; please allow me the **first chance** to answer your fellow students’ questions. I expect everybody to participate in class discussions, but that begins by fostering an environment where we do not hesitate to ask our questions.

## Odds and Ends

**MAKE-UP QUIZZES/EXAMS.** If a real emergency or University-sponsored event arises which prevents you from appearing at a scheduled examination time, you must notify me prior to the next regularly scheduled class (and before the examination if possible). Make-up examinations will be administered only at my discretion. If a student fails to appear for a make-up at the mutually arranged time, no further opportunities will be extended. **Failure** to contact me as stated above or inability to sufficiently document the extenuating circumstances of your absence will result in a grade of zero on the examination.

**LOYOLA EMAIL.** On the occasion that I need to contact students outside of class, this is the only sensible way to proceed. If you would rather not use your @luc.edu email account, ... tough! If you are unable to receive my email messages, please let me know.

## The Tutoring Center

The Center for Tutoring & Academic Excellence (CTAE) offers a variety of tutoring services for Calculus: free **Small Group Tutoring** as well as **Math/Stats Boot Camp** and **Tutor-Led Study Hall**. To learn more or request tutoring services, visit the Center online at [www.luc.edu/tutoring](http://www.luc.edu/tutoring).

**SMALL GROUP TUTORING** Students will meet weekly with their small tutoring group, which will include other students from the same course, to enhance their exposure to and interaction with course material. These sessions will be guided by a trained peer tutor. These groups are most successful when students join early in the semester. Students can request small group tutoring on the CTAE website.

**MATH/STATS BOOT CAMP** Math/Stats Boot Camp Tutoring will be available from January 18th–February 4th, Monday–Thursday, 11am–6pm, and Friday 11am–5pm. No appointment is needed for Boot Camp hours. Students may bring their Math or Statistics coursework to the Center and tutors will be on hand to assist. For more information about Boot Camp hours, visit the CTAE website.

**TUTOR-LED STUDY HALL** Beginning February 7th, Tutor-Led Study Hall for intro-level classes in our high-demand subjects (accounting, biology, chemistry, economics, mathematics, select nursing classes, physics, and statistics) will be offered several hours a week to provide additional assistance to students with questions that arise between small group and class meetings. Students can find our Tutor-Led Study Hall hours on the CTAE website.

### Class Calendar

What follows is a tentative class calendar. Any changes will be announced in class. It is unlikely that I will revise this document during the semester, but check the calendar on the course webpage for current assignments. Reading assignments (e.g., “1.1”) refer to sections in the course textbook (*Thomas’ Calculus*).

Week	Reading	Topics
01/18, 20	1.1–5.6	Review of Calculus I, with emphasis on Chapter 5
01/25, 27	6.1, 6.2	Applications of integration: volumes of revolution
02/01, 03	6.3, 6.4	Applications of integration: arc length; surface area
02/08, 10	7.1, 7.2, 7.4	Integrals of transcendental functions; rate of growth
02/15, 17	8.1–8.3	Techniques of integration
02/22, 24	8.3, 8.4, 8.7	Techniques of integration
03/01, <b>03</b>	10.1–10.3	Sequences and series; <b>Exam#1:</b> material in Chapters 6, 7, and 8
<del>03/08, 10</del>		<i>Spring Break</i>
03/15, 17	10.4–10.6	Series convergence tests
03/22, <b>24,</b>	10.6–10.8	Additional series tests; Taylor series
03/29, 31	10.9, 10.10	[03/28: W-drop date] Convergence and applications of Taylor series
04/05, 07	6.4, 6.5, 11.1, 11.2	Applications of integration (work, moments); Parametric curves
04/12, <b>14</b>	11.3–11.5	Polar curves; <b>Exam#2:</b> material in Chapters 6, 10, and 11
04/19, 21	7.3, 11.6, 11.7	Hyperbolic curves; conic sections
04/26, 28	8.5, 8.6, 9.1–9.3	Techniques of integration; differential equations; review for final
<b>05/05</b>		<b>Final Exam</b>

### A Note on Homework

Part of the homework for this class is to begin reading the assigned material **before** the day on which it is covered in class. . . or to put it another way, to **participate in class discussions**. Also, the successful student will reach **beyond** the assigned exercises (typically due each Wednesday, see the course web page) and attempt the “Additional and Advanced Exercises” at the end of each chapter.