

# HONORS: ANALYTIC GEOMETRY AND CALCULUS II - MATH 1553

## 1. COURSE INFORMATION

- **Course:** Math 1553
- **WebAssign key:** lsu 6066 9135
- **Text:** *Calculus, Early Transcendentals*, 7th Edition by J. Stewart.
- **Course Content:** Chapters 5.3, 5.5, 7, 10-13, 14.3
- **Classroom:** 220 Tureaud Hall (it will probably change)
- **Time:** 12:30 – 1:20 pm M T W Th

## 2. INSTRUCTOR INFORMATION

- **Instructor:** Cristopher Hermosilla
- **Office:** 105 Lockett Hall
- **Office Hours:** 11:00 – 11:45 am W F, or anytime by appointment.
- **email:** chermosilla@lsu.edu

## 3. COURSE DESCRIPTION

This course is a four (4) hour second calculus course designed for math, science and engineering majors and certain other technical majors. It satisfies four hours of the General Education Analytical Reasoning requirement because it includes the following area learning objective:

*LSU graduates will employ scientific and mathematical models in the resolution of laboratory and real-world problems.*

As a 4-credit course, students are expected to have eight hours of coursework outside of class per week, for a minimum time commitment of 12 hours per week.

## 4. GRADED WORK

4.1. **Homework.** There will be several homework assignments along the semester, which will be assigned through WebAssign. Homework scores will be averaged to count 30% of your final grades.

4.2. **Tests.** There will be 3 midterm in-class exams, each one of them covering an entire chapter of Stewart's book (except for the last one). Midterm in-class exams scores will be averaged to count 40% of your final grade.

Date	Contents to be evaluated
Monday, September 12th	Chapter 7
Monday, October 17th	Chapter 11
Monday, November 14th	Chapter 10 and 12

4.3. **The Final Exam.** The final exam will take place on Thursday, 8th December from 12:30–2:30 (usual classroom). The final comprehensive exam will count 30% of your final grade. There will be no early final exam exceptions.

4.4. **Final grade.** Your final grade will be calculated as follows:

Final Exam	30%
Midterm Exams	40%
Homework	30%

4.5. **Grading scale.** Any score equal or below 59.9 will be considered as F. This course will follow the +/- system as follows

A-	90-92.9	A	93-96.9	A+	97-100
B-	80-82.9	B	83-86.9	B+	87-89.9
C-	70-72.9	C	73-76.9	C+	77-79.9
D-	60-62.9	D	63-66.9	D+	67-69.9

## 5. POLICIES

5.1. **Attendance.** Attendance to classes is not mandatory but is, of course, highly recommended. Any missing exam or quiz will be automatically scored with 0 points, unless the student present a properly documented excuse for missing an assignment. The missed assignment must be made up within two days.

5.2. **Collaboration.** You may collaborate with others while doing homework or studying for tests. Nevertheless, work on in-class exams must be your own work with no assistance from anyone else. During an exam, attempts to look at other students' exams and the use of crib sheets or formula sheets will be considered to be a violation of the LSU Code of Student Conduct and will be reported to the Student Advocacy and Accountability Office.

5.3. **Punctuality.** You must arrive on time at classroom. It is highly recommended to arrive 5 minutes before the starting time. However, if you are late, please enter quietly and try not to disturb too much the instructor and other students.

5.4. **Graded work.** No books or notes are permitted. Also, no electronic devices (such as calculators or smart-phones) are allowed during graded work. Final exam score won't replace neither tests score nor homework score.

## 6. WEBASSIGN

We will be using WebAssign to do online homework. A WebAssign access code is included with your textbook, or you can purchase access directly from the WebAssign website without buying a book at all. Access to WebAssign also gives you access to the e-book version of our textbook, so if you like using e-books then there is no need to buy a physical textbook. An access code may also be purchased without a textbook at campus bookstores with a small markup in price. If you plan to take calculus at LSU next semester as well, you should buy the multi-semester (*Lifetime of the Edition*) version of access.

In either case, create a WebAssign account by going to [www.webassign.net](http://www.webassign.net) and clicking on the link labelled *I have a class key*. The key for our class is **lsu 6066 9135**. In the field that asks for your student ID, enter your LSU ID number (89...) without any hyphens or spaces. The student ID number is needed to transfer your scores into the Moodle gradebook.

## 7. TOPICS COVERED

A partial list of basic skills you should acquire during the course.

- (1) Techniques of integration, numerical integration, improper integration
- (2) Infinite sequences and series, convergence tests, power series and Taylor series
- (3) Parametric curves and polar coordinates; areas and lengths determined by parametric and polar curves
- (4) Vectors in two and three dimensions; lines and planes in space
- (5) Analytic geometry of conic sections and quadric surfaces
- (6) Calculus of vector-valued functions; arclength, curvature and motion in space
- (7) Calculation of partial derivatives