



Calculus I Spring 2012

Course and Recitation Syllabus

CLASS INFORMATION:

Course Number: Math 181 Section 1001
Lecture Times: MW 10:00am – 11:15am
Lecture Location: WRI-C144

PROFESSOR INFORMATION:

Name: Dr. Bellomo
Office Location: CDC, Building 9, Room 916
Office Phone: (702) 895-0358
Email: carryn.bellomo@unlv.edu
Math Dept Phone: (702) 895-0304
Web Page: <http://faculty.unlv.edu/bellomo>
Office Hours: M 9:00–10:00am and W 11:15–1:00pm (no appointment needed)
M 11:15–1:00pm and W 9:00–10:00am by appointment
*Book an appointment online at <http://bellomo.calendarspots.com/>

COURSE DESCRIPTION: Differentiation and integration of algebraic and transcendental functions with applications.

PREREQUISITES for the COURSE: Math 128 or equivalent.

COURSE MATERIALS:

Required Text: *Essential Calculus: Early Transcendentals* 1st edition by J. Stewart
Required Account: WebAssign (<http://www.webassign.net/login.html>)
Required Material: I-clicker
Suggested Scientific Calculator (should have Trigonometric Functions, Exponentials and Logs)
Suggested Printout of Online Notes**

** Lecture notes are posted for you to review prior to class and fill in during lecture. A completed version of these notes will be posted after the lecture is given (usually the end of the week).

TOPICAL OUTLINE:

Chapter 1 – Functions and Limits
Chapter 2 – Derivatives
Chapter 3 – Inverse Functions
Chapter 4 – Applications of Differentiation
Chapter 5 – Integrals

EVALUATION AND GRADE ASSIGNMENT:

2% I-clicker Average
18% Recitation Average
50% Test Average
30% **Cumulative Final Exam (Given Monday May 7th, 10:10am – 12:10pm)**

Letter grades will be assigned according to the scale: A 92-100, A- 90-91.9, B+ 87-89.9, B 82-86.9, B- 80-81.9, C+ 77-79.9, C 72-76.9, C- 70-71.9, D+ 67-69.9, D 62-66.9, D- 60-61.9, F below 60.

LEARNING OUTCOMES:

1. Understand the definition of a function and how it relates to the vertical line test
2. Find limit of a function with various techniques
3. Recite the limit definition of the derivative, and use it to find the derivative of an elementary function
4. Calculate the derivative for a function, implicitly and explicitly
5. Find the slope of the line tangent to a curve through a point
6. Find the linear approximation of a given function
7. Find the absolute maximum and minimum for a function using the derivative
8. Describe the behavior of a function given the graph of the derivative
9. For a given function:
 - a) Specify the domain
 - b) Find vertical and horizontal asymptotes (if they exist)
 - c) Find the first and second derivatives
 - d) Determine when the derivatives are zero or undefined
 - e) Make a sign diagram, indicating when the first and second derivatives are positive, negative, zero or undefined
 - f) Classify critical points, and identify inflection points
 - g) Make a rough sketch using the information gathered above
10. Use Newton's Method to approximate the root of a function given an initial guess and articulate mathematically how good that approximation is
11. Use the Right Hand Riemann Integral Technique to evaluate a definite integral
12. Use the definite integral to determine the area between a curve and the x axis
13. Integrate definite and indefinite integrals

COURSE SCHEDULE: See schedule or web page for latest version.

CLASS POLICIES:

ATTENDANCE/I-CLICKER AVERAGE: Lecture attendance counts directly in the computation of your final grade. The professor will take attendance during lecture using the I-clicker. Questions will be given throughout the lecture. To receive attendance credit, you must answer *all but one* question given in lecture that day; you do not necessarily have to get them correct. You will be permitted 3 lecture absences (whether a whole or partial absence). For each missed lecture after that (in whole or in part) you will lose 4 percentage points from your I-clicker average.

HOMEWORK: (All assignments are listed on the course website) **Written homework** is assigned for all sections covered in class. This assignment typically consists of selected problems at the end of each section in your text book, with a few supplemental problems. You are requested to do all the written homework after discussion in lecture and *before* the next class period. You may need to do more problems as needed for mastery of the material. The written homework will *not* be collected and graded.

A subset of the written homework is **assigned on WebAssign** (details provided in the recitation section).

MAKE-UP POLICY: If you miss a class or recitation for *any* reason, *you* are responsible for all material covered, announcements made in your absence, and acquiring materials that may have been distributed in class. While many announcements, handouts and the like will be posted on the web, the professor makes no guarantees. It is your responsibility to have one or two contacts in the class/recitation, as the professor will *not* provide information to you should you have missed it the first time. Make-up and late work (including tests, online homework, and recitation quizzes) will *not* be accepted for *any* reason and will result in a recorded grade of zero. To ensure consistent enforcement of the policies, *recitation instructors are not permitted to allow makeup work*. To assist students who have emergencies arise during the semester, the following accommodations will be made for *all* students:

I-clicker Average. Three absences allowed without penalty (whether you miss a whole or part of a lecture, it will count as an absence).

WebAssign Homework. (estimated 31) The three lowest scores will be dropped.

WebAssign Practice Tests. (estimated 5) These are not part of your grade but *may* be used for extra credit.

WebAssign Practice Reviews. (estimated 5) These are not part of your course grade in any way.

In-Class Practice Quizzes. (estimated 5) These are not part of your course grade, but your participation is mandatory and attendance will be taken using the I-clicker.

Recitation Attendance. (estimated 9, not counting test days). One absence allowed without penalty.

The following additional accommodations will automatically be made for *any* student whose I-clicker average is 90% or higher *and* whose WebAssign average is 75% or higher *and* whose recitation attendance average is 90% or higher:

Tests. (estimated 3) Lowest exam score will be replaced by your final exam score (assuming it is higher).

Recitation Quizzes. (estimated 8) The lowest score will be dropped.

ACADEMIC INTEGRITY/COLLABORATING: Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: <http://studentconduct.unlv.edu/misconduct/policy.html>. Another example of academic misconduct is *giving your clicker to another student for them to enter in answers in your absence*.

While the UNLV Department of Mathematical Sciences encourages students to collaborate with peers, there is a distinction between verbal collaboration and copying. Specifically – it is *not* acceptable to “divide” work, and it is *not* acceptable to use another persons' hard work (current or former student, teaching assistant, or tutor) as your own. Further, if you feel you are being misguided, it is *your* responsibility to report this to your instructor *before* testing, so they can correct the situation and give you proper clarification.

Academic dishonesty will *not* be tolerated; the College of Sciences emphasizes zero tolerance for academic dishonesty. All acts of academic dishonesty may result in: automatic zero on the assignment, F in the course, disciplinary review, revoking of degree, probation, expulsion, etc.

GRADING CONCERNS: Should you feel your written work has been graded improperly, you are welcome to stop by the professors' office for clarification within 2 weeks from when the work was first returned to the class. Be aware that this will open up the *entire* test for re-evaluation. It is possible for points to be awarded or taken away. Grading issues will *not* be reviewed in the classroom. Recitation instructors are *not* permitted to change test or quiz grades.

FREE TUTORING: Free tutoring through the Department of Mathematical Sciences is available for this course. Call 895-0366 or visit http://www.unlv.edu/math/math_clinic.html for more information, including location and hours. Additional free and pay tutoring is available in the Academic Success Center, <http://academicsuccess.unlv.edu/tutoring>.

UNIVERSITY POLICIES:

(1) The Disability **Resource Center (DRC)** determines accommodations that are “reasonable” in promoting the equal access of a student reporting a disability to the general UNLV learning experience. In so doing, the DRC also balances instructor and departmental interests in maintaining curricular standards so as to best achieve a fair evaluation standard amongst students being assisted. In order for the DRC to be effective it must be considered in the dialog between the faculty and the student who is requesting accommodations. For this reason faculty should only provide students course adjustment after having received this “Academic Accommodation Plan.” If faculty members have any questions regarding the DRC, they should call a DRC counselor.

UNLV complies with the provisions set forth in Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The DRC is located in the Student Services Complex (SSC-A), Room 143, phone (702) 895-0866, fax (702) 895-0651. For additional information, please visit: <http://drc.unlv.edu/>.

(2) Any student missing class quizzes, examinations, or any other class or lab work because of observance of **religious holidays** shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the last day of late registration of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university which could have been avoided.

For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=4&navoid=164>

(3) The University requires all members of the University Community to familiarize themselves and to follow **copyright and fair use requirements**. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/committees/copyright/>.

- (4) By policy, faculty and staff should e-mail students' **Rebelmail** accounts only. Rebelmail is UNLV's Official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.
- (5) One-on-one or small group assistance with writing is available free of charge to UNLV students at the **Writing Center**, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student's Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

RECITATION INFORMATION:

- Recitations: Section 1002. Friday 8:00am – 9:45am, CBC-C142 (Michael Chang)
 Section 1003. Friday 10:00am – 11:45am, WRI-C308 (Michael Chang)
 Section 1004. Friday 1:00pm – 2:45pm, WRI-C308 (De You Guan)
 Section 1005. Friday 3:00pm – 4:45pm, WRI-C308 (Michael Chang)

Each recitation section is assigned an instructor, who is responsible for disseminating materials and grading assignments. The professor sets the grading scheme and recitation policies. Tests will be given during your recitation section (see the course schedule for additional details).

INSTRUCTOR INFORMATION:

Michael Chang: CDC 706, 895-5350

De You Guan: CDC 718, 895-5155

Each recitation instructor will provide you with additional contact information.

RECITATION EVALUATION AND GRADE ASSIGNMENT:

- 10% Recitation Attendance
45% Recitation Quiz Average
45% WebAssign Homework Average

Recitation grades will be reported to the professor and will count 18% towards your final grade.

COURSE SCHEDULE: See schedule or web page for latest version.

RECITATION POLICIES:

ATTENDANCE: Attendance in the recitation is mandatory and will count directly towards your grade. You must attend *only* the recitation for which you enrolled. You will be permitted one absence. After that, 7 points will be deducted from your attendance grade for each absence (excused or unexcused). Your recitation instructor may or may not use the I-clicker in recitation.

QUIZZES: Each week of recitation (when there is not a test) you will have a **recitation quiz**. This is your opportunity to master the methods presented during lecture and implemented during homework assignments. It is essential that homework is completed (or at least attempted) before your recitation section so you may utilize the time in an effective manner. The recitation quiz will be a collaborative effort (up to 3 students per quiz), open notes and open book.

ONLINE HOMEWORK/WEBASSIGN: I will assign **online homework from WebAssign** for all sections covered in class. These exercises are typically a subset of the written problems assigned. You are required to do all these problems on or before the due date/time. Online homework is **due each Sunday at 11:59PM PST** and covers all sections presented that week during lecture. **Late submissions will not be accepted.** You have five chances for submission, the last submission will be the grade recorded.

Please note: All assignments are due Sunday at 11:59pm PST. Also note that at times there are computer/internet issues with your service provider and with WebAssign. You are urged to complete the assignment *well before* the due date and time to ensure proper posting of your grade. I will not credit your score if it was not posted properly. In addition, there will likely be a discrepancy between the final grade you see in WebAssign versus the grade you see in

WebCampus; please note that WebCampus is the accurate grade.

On WebAssign you will find a **practice test** for each chapter. This practice test is a random set of 20 questions taken from *all* online problems offered by WebAssign. Note that all these problems *may not* reflect what is assigned for your written homework. Practice tests are typically 'due' the night before we have our in-class practice quiz. You will have ten chances for submission, the last submission will be the grade recorded. These grades will be recorded, but will not count against you in your cumulative grade.

Also on WebAssign you will find a **practice review** for each chapter. This practice review is the entire set of available problems from WebAssign. Note that all these problems *may not* reflect what is assigned for your written homework. There is no due date for the practice reviews, they will be available for the length of the semester. You have 50 chances for submission, no grade will be recorded.

MAKE-UP POLICY: Make up work will *not* be accepted for *any* reason and will result in a recorded grade of zero.

Recitation instructors are *not* permitted to allow make-up work to ensure consistent enforcement of the policies. See the make-up policy in the course section of the syllabus for further details.