MT102 Calculs I (Math/Sci)
Fall 2012

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MT102 is a course in differential (and some integral) calculus. In it we study functions and their properties, graphs, limits, derivatives, applications of the derivative, and introductory integration. Calculus is an important tool- and language- used by natural and social scientists to describe and understand complex systems. Our goal is to master the main theoretical ideas of differential and integral calculus, to understand how we use these ideas to describe diverse applied phenomena, and to learn to use calculus to solve interesting mathematical and scientific problems. We also hope that you will develop an appreciation for the intrinsic aesthetic beauty of the ideas and concepts of calculus.

Instructor: Prof. Dan Chambers, chambers@bc.edu, 365 Carney, 552-3769

TF: Scott Mullane, mullansc@bc.edu, 362 Carney, 552-8835

Lectures: MWF2, Cushing 001.

Recitations: In addition to the lecture class, you are assigned to one of three recitation sections:
MT14601, TH10 206 Carney
MT14602, TH11 302 Carney
MT14603, TH3 302 Carney

The recitations are led by the TF, and provide students the opportunity to ask questions about homework or the past weeks material or review for exams in a smaller setting than the large lectures. Occasionally new material will be introduced in recitation so you should consider attendance mandatory! You must register for one of these sections.

Course materials: (i) We will use Calculus Of A Single Variable: Early Transcendental Functions 5th Ed. by Larson/Edwards, ISBN 053873552

(ii) You will need an account on WebAssign, an online homework site. Go to the site http://www.webassign.net and click on the box that says "I have a class key." Our class key is bc 5206 2332 (the institution code is bc and goes in the first box; the next two 4 digit numbers go in the next two boxes).

(iii) You'll need a basic scientific calculator capable of trig, exponential and log functions. A graphing calculator might be useful but isn't required.

The textbook and WebAssign subscription are available as a package at the BC bookstore. You may alternatively purchase or rent either a (hardback or softback) print copy or e-book directly from Cengage; go to cengage.com and enter the ISBN. You will need a WebAssign subscription; this

is available as part of a bundled package that includes an e-book from Cengage (see the link on that page). If you have the book already, you can purchase WebAssign directly from WebAssign.net.

Office Hours: M12-1, W10-11, F1-2 or by appointment

Homework: Homework will be assigned and collected weekly. There will be two components to the homework- WebAssign problems to be done online and other assigned problems to be turned in on paper. For the latter, I will post solutions. Both kinds of homework will contribute to your semester grade. There will be no late homeworks accepted, but it will be possible to miss a few without affecting your grade.

If you are having trouble with the homework problems, Scott and I are available for assistance and hints. You are allowed to discuss the written problems with other students, but **you alone are to write up your work**; discussion with other students is simply to understand the concepts and techniques so that you can solve the problems. **Papers containing transparent copying will be returned with zero credit.** WebAssign problems are to be done on your own.

Integrity University procedures will be followed in integrity cases; see **www.bc.edu/integrity** for these.

Exams: there will be three midterm exams and a cumulative final. You are only allowed a make-up for a missed exam for a serious reason, which should be cleared with your dean as well as me. If you must miss one, please clear it with me beforehand. In case of illness where this is not possible, you will need to clear it after the fact with your dean. Exams are closed-book, except that you may bring in one standard sized sheet of notes. **Exam dates: October 1, October 26, November 16 for the three midterms; the final is on December 19 at 12:30 pm.**

Grades: Your grade will be based on the weighted average of your exam and homework scores, with the following weights: 16% homework, 51% in-class exams (17% each) and 33% final.

Resources: In addition to our office hours, there is free walk-in tutoring sponsored by the Mathematics department; hours will be announced. The Connors Family Learning Center (on the second floor of O'Neill Library) has free one-on-one tutoring in statistics available. Sessions are by appointment at 617-552-0611

Disabilities: If you are a student with a documented learning disability seeking reasonable accommodations in this course, please contact the Connors Family Learning Center (617-552-8093); regarding all other types of disabilities, please contact the Disability Services Office (617-552- 3470).

Class website: I will be using my site for the class. Go to www2.bc.edu/daniel-chambers and follow the link to MT102.