Winter 2016: Math 215/255: Differential Equations Common Page

`http://www.math.ubc.ca/~coombs/215/math215255common.html`

Instructors: Dr. Daniel Coombs, Dr. Jacob Norton and Dr. Mona Rahmani.
Math department tutoring centre is located in LSK 301/302.

- **Text:** Our main reference will be the online textbook Diffy Qs by Lebl. You can download the book (for free) or order a copy (for cheap) to be sent to you from this page: http://www.jirka.org/diffyqs.
- **Clickers** will be used in some sections of this course. Please confirm with your section instructor about whether you need to get a clicker (available from the bookstore).
- **Matlab/Octave**. You will need one of these tools for some of the homework in this class. See below for instructions about how to get one of these programs for your personal computer. You can also/alternatively use the Math department computer labs.
- Additional free online notes are available at the following sites:
http://tutorial.math.lamar.edu/Classes/DE/DE.aspx
http://www.math.ust.hk/~machas/
http://www.springerlink.com/content/p78848/?MUD=MP (for the last link you will need to be accessing from UBC, either directly or via VPN: http://www.it.ubc.ca/service-catalogue/internet-and-telephone/network-management/myvpn)
You can also consult physical textbooks. Some favourites are Boyce and DiPrima (any recent edition) and Edwards and Penney. Boyce and DiPrima has often been used at UBC.

Important Dates:

- First class: January 4th, 2016.
- Midterm tests: TBA
- Final exam: TBA

Grading

- The breakdown of marks between course elements will be as follows: TBA.
- Missing a midterm normally results in a mark of 0. Exceptions may be granted in two cases: prior consent of the instructor or a medical emergency. In the latter case, the instructor must be notified within 48 hours of the missed test, and presented with a doctor's note immediately upon the student's return to UBC. No make-up midterms will be given.
- Term marks may be scaled up or down on a classwide basis, depending on performance on the final exam. This is to ensure fairness across both sections of the course.
- You have to submit only your own Webwork, own homework, own clicking, etc. Although you are welcome to study together and discuss the homework with other students, the work you submit (electronically, on paper, or via clickers) must be your own. UBC policies on cheating and plagiarism are extremely strict. If in doubt, enquire before submitting.

Homework

- **Some homework questions will require use of Matlab/Octave to solve problems numerically. See below for instructions on obtaining Matlab/Octave.**

Midterms

- Related items will be posted here.

Final Exam

- Final exam related material will be posted here.
- [Previous math 215 exams.](#) **Note that different topics receive more or less emphasis in different years.**
- [UBC Math Exam Resources wiki](#).
- [UBC Math club](#).Will sell you some previous exams with solutions. Carefully note their opening hours.

Computer homework information

Getting the needed software

- Computer homework information will be given in class as needed.
- Here are three options for obtaining software needed for the homework.
- (1) A basic student "unbundled" version of Matlab can be purchased and downloaded from Mathworks, Inc: www.mathworks.com for $49. You do not need any additional toolboxes for this class.
- (2) You can install [Octave](#). Octave is a free program that is quite similar to Matlab so that most programs are easily portable from one to the other. Installation of Octave on Windows and Linux is fairly simple (in fact if you have a recent Linux distribution, Octave might already be installed). However on Mac computers, installation can be a bit trickier. *We will not help you install software on your personal computer.*
- (3) You can use the Mathematics [undergrad computer labs](#), located in LSK 121 and LSK 310. The labs are open from 8am-5pm Monday to Friday. LSK 310 is also where the TA help will be available (either on a lab computer, or take your laptop). To use the lab computers you will need to login using a user account. Follow the instructions that will be sent to you by email (ask the TAs for assistance if needed).

Lab TA hours:

TAs will be available in LSK 310 at the following times (subject to change through the semester, please check back for updated hours):
- Monday: TBA
- Tuesday: TBA
- Wednesday: TBA
- Thursday: TBA
- Friday: TBA

Matlab and Octave resources

- UBC Math [Matlab/Octave resources page](#).
- Matlab is used by **lots** of people worldwide. The [Mathworks help site](#) is a good place to look for help, but often you will also find an answer by directly using Google or another search engine.

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