

# Ordinary Differential Equations - Math 215/255

## Summer 2015

- **Instructor:** *Malabika Pramanik*
- **Mathematics Building, Room 214**
- **Phone:** *(604)822-2855*
- **Email:** *malabika@math.ubc.ca*
- **Office hours:** *To be announced on the course website.*

- **Web page :** The course website is

*<http://www.math.ubc.ca/~malabika/teaching/ubc/summer15/math215-255/index.html>*

Homework assignments and all relevant course information (such as changes to office hours if any, or solutions to homework problems if needed) will be posted here.

- **Required text :** *Notes on Diffy Qs* by Jiri Lebl. The book is freely available online at *<http://www.jirka.org/diffyqs>*.

- **Optional text :** *Elementary differential equations and boundary value problems* by Boyce and DiPrima.

- **Lectures :** Monday, Tuesday, Friday 1-3 pm and Wednesday 1-2 pm in Mathematics Building, Room 100.

- **Prerequisites :** One of MATH 101, MATH 103, MATH 105, MATH 121, SCIE 001 and one of MATH 152, MATH 221, MATH 223.

- **Corequisite:** One of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.

- **UBC Course description :**

- First-order equations
- Linear equations
- Linear systems
- Laplace transforms
- Numerical methods
- Trajectory analysis of plane nonlinear systems

A tentative week-by-week lecture schedule is available on the course website.

• **Course Policies :**

- Homework problems will be posted weekly on WebWork. Go to <https://webwork.elearning.ubc.ca/webwork2/> and click on the course identifier “MATH215-255-921\_2015S1”. Solutions will be made available after the due date has passed. We are unable to accomodate homework extension requests.
- You are strongly encouraged to work through the exercises provided at the end of each relevant section of the textbook. Weekly practice problems, which are not worth any mark and have no assigned deadline, will also be provided on WebWork.
- We will be using Piazza as the class discussion platform. You can use it to get clarifications from to your classmates or respond to their questions, with some input from the instructor and the TA-s. Follow the Piazza link on the course webpage to sign up.
- We will be using clickers in most classes (starting from Wednesday May 13) to facilitate discussion and problem-solving. Points will be assigned for participation as well as for correctness, with equal emphasis on both. Please refrain from lending or borrowing clickers that are not registered under your name and student ID. Responses from clickers that do not belong to students on the class roster will be discarded.
- In addition to WebWork and clicker questions, there will be *3 in-class quizzes and a final exam*. The quizzes will be 30 minutes long and held during the last half hour of class time on **Friday May 22, Friday June 5 and Wednesday June 17**. Your total score will be a weighted average of your WebWork, clicker, quizzes and final exam scores, with the breakdown as follows.
 

<b>Homework</b>	10%
<b>Clicker grade</b>	5%
<b>In-class quizzes</b>	$15 + 15 + 15 = 45\%$
<b>Final exam</b>	40%
- The quizzes and the final exam will be strictly closed book; no formula sheets or calculators will be allowed.
- Missing a homework or midterm normally results in a score 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 be provided with a doctor’s note immediately upon return to UBC.
- *There will be no make-up quizzes and/or homework*. If you miss a quiz for a valid reason as described above, the weight of the missed work will be transferred to the final exam. You will not be allowed to take the final exam if you miss two or more quizzes.
- The final exam date for this course is currently unavailable, but will be released during the term. *Do not make travel plans until the final exam schedule has been announced*.