

Syllabus for MA 226 B1 - Differential Equations
Spring 2016 - Tuesday, Thursday 9:30am - 10:45am

Classroom: STO B50

Professor: Mickey Salins

Office: MCS 239
Email: msalins@bu.edu
Web Page: <http://math.bu.edu/people/msalins/>
Office Hours: Wednesday 1:00pm-2:30pm, Thursday 11:00am-12:30pm
and by appointment.

Teaching Fellow: Ioannis Gasteratos

Office: MCS B32
Email: igaster@bu.edu
Office Hours: Monday and Wednesday 12:30pm-1:30pm

Discussion Sections:

Section	Room	Time
B2	CAS 235	T 2:00pm - 2:50pm
B3	CAS 424	T 3:35pm - 4:25pm
B4	CAS 235	W 9:05am - 9:55 am
B5	BRB 121	W 10:10am - 11:00 am
B6	CAS 235	W 4:40pm - 5:30pm

Course Description: A differential equation is a mathematical statement that includes an equal sign as well as an unknown function and its derivatives. The solution to a differential equation is the mystery function. Differential equations can be used to model a wide variety of physical systems. We will learn three major approaches for solving differential equations: analytic methods, qualitative methods, and numerical methods. Analytical methods can lead to exact solutions of differential equations, but unfortunately most differential equations cannot be solved this way. Qualitative methods enable us to draw solutions to a differential equation, even if we cannot find an exact solution. Numerical methods enable us to approximate solutions to differential equations using computers.

Textbook: DIFFERENTIAL EQUATIONS 4th edition by Blanchard, Devaney, and Hall. ISBN 978-1-133-10903-7 or 978-0-495-56198-9. You will also need to download the DE Tools software that comes with the textbook.

Homework and Quizzes: There will be weekly homework assignments posted on the course website. Homework solutions must be written clearly. Well-written explanations are required for all questions and you will be graded for both your final answer and the explanations leading up to it. In addition, there will be a short quiz at the beginning of each discussion section based on the previous week's homework. The quiz will consist of questions from the homework. The lowest two homework scores will be dropped. The lowest two quiz grades will be dropped.

Exams: There will be two midterm exams and one final exam. Exam dates:
Midterm 1 – February 22, 2018
Midterm 2 – April 12, 2018
Final Exam – Tuesday May 8 9:00am-11:00am

Excused Absences and Make-ups: Please let me know about all religious observances at the beginning of the semester. There will be no make-ups for quizzes or homework assignments. In extreme circumstances (religious observance, death in the family, emergency) there can be make-ups for exams. Please tell me during the first week of school if you will need a make-up exam.

Grades: Grades will be weighted to make a 100% total. You can view your grades at <http://learn.bu.edu/>.

Midterm 1:	25%
Midterm 2:	25%
Homework:	10% (two lowest scores dropped)
Quizzes:	10% (two lowest scores dropped)
Final Exam:	30%

Students with disabilities: Please contact me.

Academic Integrity: Please do not cheat.