

**DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES  
UNIVERSITY OF TORONTO MISSISSAUGA**

**MAT244H5F LEC0102  
Differential Equations I  
Course Outline - Fall 2018**

<b>Class Location &amp; Time</b>	Tue, 03:00 PM - 04:00 PM DV 2082 Thu, 01:00 PM - 03:00 PM DV 2080
<b>Instructor</b>	Remus Radu
<b>Office Location</b>	DH-3017
<b>Office Hours</b>	TBA
<b>E-mail Address</b>	remus.radu@utoronto.ca
<b>Course Web Site</b>	<a href="https://q.utoronto.ca">https://q.utoronto.ca</a>
<b>Teaching Assistant</b>	Marc De Benedetti
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### Course Description

(Formerly MAT242H5) Ordinary differential equations of the first and second order, existence and uniqueness; solutions by series and integrals; linear systems of first order; linearization of non-linear systems. Applications in life and physical sciences. Power series solutions, boundary value problems, Fourier series solutions, numerical methods. [36L, 12T]

*Prerequisite:* MAT233H5 or Corequisite MAT232H5/MAT257Y5.

*Corequisite:* MAT223H5/MAT240H5

*Exclusion:* MAT212H5, MAT244H1, MATB44H3 (SCI)

*Distribution Requirement:* SCI

Students who lack a pre/co-requisite can be removed at any time unless they have received an explicit waiver from the department. The waiver form can be downloaded from [here](#).

### Textbooks and Other Materials

Edwards, Penney & Calvis, *Differential Equations and Boundary Value Problems: Computing and Modeling (Tech Update)*, 5th Edition, Pearson (ISBN: 978-0-13-483739-0)

Edwards, Penney & Calvis, *Differential Equations and Boundary Value Problems: Computing and Modeling (Tech Update)*, 5th Edition, Pearson (ISBN: 978-0-13-487291-9, Note: this is the eBook version, <https://www.vitalsource.com/referral?term=9780134872919> )

### Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Four homework assignments	On-going	20%
Term Test	in class	2018-10-25	30%
Final Exam	Final Exam	TBA	50%
<b>Total</b>			<b>100%</b>

## More Details for Assessment and Deadlines

### Homework

Students are expected to attend class regularly and to keep up with the material presented in the lecture and the assigned reading. It is generally useful to read the corresponding section in the book before the lecture. There will be four homework assignments. The homework assignments are to be submitted ***at the beginning of your TUT***, the week that they are due. You may work together on your problem sets, and you are encouraged to do so. However, all solutions must be written up independently. Assignments will be posted on the course page (in Quercus) in the "Assignments" section.

### Penalties for Lateness

Late assignments are not accepted.

### Procedures and Rules

#### Missed Term Work

If you are forced to miss a test due to illness or some other extenuating circumstances, you must submit documentation to the instructor no later than one week after the day of the test. There will be **no make-up** test; if you miss a test for some approved legitimate reason, the marking scheme will be adjusted to compensate.

For medical notes, you must use the official UTM Medical Certificate, available on the course website. Please keep a copy of the form for your own records.

#### Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file an [online petition](#) **within 72 hours of the missed examination**. Original supporting documentation must also be submitted to the Office of the Registrar **within 72 hours of the missed exam**. Late petitions will **NOT** be considered. If illness is cited as the reason for a deferred exam request, a U of T Verification of Student Illness or Injury Form must show that you were **examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest**. Students must also record their absence on ACORN on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of \$70 is required for each examination approved.

#### Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone else's work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (<http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

### Final Exam Information

Duration: 2 hours  
Aids Permitted: None

### Additional Information

Please see the syllabus posted on the course webpage for more information, including a week by week schedule

Last Date to drop course from Academic Record and GPA is November 8, 2018.