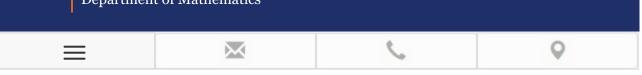
# Alexandre Turull Department of Mathematics



# f19-map2302-syllabus

# MAP 2302 Elementary Differential Equations

Fall 2019

Section	Period	Meeting Time	Room
5603	MWF 4th	10:40 a.m. – 11:30 a.m.	LIT 217

# Professor Alexandre Turull

480 Little Hall (352) 392-0281 ext 243 turull@ufl.edu

### **Office Hours**

Monday	Tuesday	Wednesday	Thursday	Friday
1:55 – 2:45		1:55 – 2:45		1:55 – 2:45

# Also by appointment

Calendar — Lecture topics and their approximate dates.

Homework Problems — List of homework assignments.

### Textbook:

*Fundamentals of Differential Equations*, by Nagle, Saff and Snider, eighth edition. We will cover most of chapters 1-4 and 6-8.

# Content:

MAP 2302 is a 3 credit course which gives the basic elementary knowledge necessary for understanding, applying, and solving differential equations of the most usual types (Chapters 1, 2, 4, 6, 7, and 8 of the text).

This course is designed to serve students in engineering, physics, mathematics and related areas. It is

taught in lecture format in small sections, with grading, computer usage and laboratory projects instructor dependent.

The course starts with an introduction to the concept of differential equations. It covers first order methods, including separability, exactness, integrating factors, first order linear equations, Bernoulli's equations, and second order equations reducible to first order ones. It also includes applications, including mechanics.

The course continues with higher order methods for constant coefficient linear equations including particular solutions and general solutions by the method of undetermined coefficients. Applications include vibrating springs, resonance, and electrical circuits.

The course covers Laplace transform methods, including properties of the Laplace transform, solution of initial value problems, and applications.

The course also covers series solutions of differential equations, including the study of ordinary and singular points, and the method of Frobenius.

#### Format:

Lectures. Reading and homework will be assigned and discussed in class. You are expected to participate in classroom discussions.

Homework will be assigned regularly and discussed in class. Homework will not be graded. There will be frequent quizzes.

### Calculator policy:

There will be no calculator or computer allowed in any exam or quiz.

### Tests:

There will be four 60-point tests and a cumulative final. All tests and the final will be in our regular classroom.

Test 1: Friday, September 20, Test 2: Friday, October 11, Test 3: Friday, November 1, Test 4: Monday, December 2.

Final: Wednesday, December 11, 7:30 a.m. — 9:30 a.m.

#### Quizzes:

There will be frequent unannounced quizzes.

#### Final grade:

4 tests	240
final	100
quizzes	60

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A ≥ 360	C ≥ 280
A-≥346	C-≥266
B+≥ 333	D+ ≥ 253
B ≥ 320	D ≥ 240
B-≥ 306	D-≥226
C+≥293	E < 226

#### Attendance policy

Students are expected to attend class regularly.

The UF policy on attendance is here: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

### Honor Code

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code."

On all work submitted for credit by students at the University of Florida, the following pledge is either

required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor of this class.

### Website:

https://people.clas.ufl.edu/turull/f19-map2302-syllabus

#### Course evaluation:

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.



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