

Elementary Differential Equations
MAP 2302 Sections 022G, 0220
SPRING 2018

Instructor: Dr. Konstantina Christododouloupoulou

Office Phone: (352) 294- 2315

Office Location: 370 LIT

Email: kchristod@ufl.edu

Office Hours: M4, R5, F6 and by appointment

Open Door Policy: You are welcome to drop by to discuss any aspect of the course, anytime.

All course materials will be posted in e-Learning CANVAS <https://lss.at.ufl.edu>

Text: *Fundamentals of Differential Equations* by R. Kent Nagle, Edward B. Saff and Arthur David Snider, ninth edition, ISBN-13: 978-0321977069, ISBN-10: 0321977068. This course will be participating in the UF All Access program. Within Canvas, using the Bookshelf tab, ALL students will be able to access the e-text during the first week of class. Afterwards, only students who have opted in through UF All Access will have the e-book subscription continued. *Follow the instructions in the Syllabus tab in CANVAS if you wish to use UF Access and opt-in. The deadline to opt-in is Friday January 26, 2018.*

Course content and objectives: This course presents techniques for solving and approximating solutions to ordinary differential equations. We will cover selected material from Chapters 1(Introduction), 2(First Order ODE), 3(First Order Applications), 4(Second Order ODE), 7(Laplace Transform), and 8(Series Solutions).

Reading: It is essential that you work on the material outside the classroom. Carefully read the textbook before coming to class and use pencil and paper to work through the material. A course calendar (subject to revision during the term) is available at the end of the syllabus and also in the course homepage in CANVAS. There you can find which sections will be covered during each lecture. *It is expected that you have read the relevant textbook sections before each lecture, so that you will be able to better grasp the material presented.*

Office Hours: I encourage you to take advantage of my office hours and my **open door** policy. You are welcome to drop by my office to talk about the course anytime I am in my office and my door is open. In addition, I will hold regular office hours for your convenience. If you cannot make my posted hours I will also be happy to set a meeting time that is convenient for both of us.

Course Web Page: I will update CANVAS regularly with class announcements, homework assignments, and additional materials. All grades are posted in the Canvas gradebook. You are responsible for verifying that those grades are accurate. **You have one week after a score has been posted to contact me to resolve any grade concerns. We will not consider any grading disputes nor make any grade adjustments at the end of the term. Be sure to save all original documents in case of grading questions.**

Grading:

Your course grade is based on 400 points accumulated as follows:

| | |
|--|------------|
| Quizzes, best 5 out of 7, 12 points each | 60 |
| Projects, best 2 out of 3, 10 points each | 20 |
| Semester exams (80 points×3) | 240 |
| Cumulative final exam | <u>80</u> |
| | 400 |

The total sum of points is your numerical score, which will be converted to a letter grade according to the following scale.

| | | | |
|----|-------------------|-----|-------------------|
| A | 360 - 400 pts | C | 280 - 293.999 pts |
| A– | 348 - 359.999 pts | C–* | 268 - 279.999 pts |
| B+ | 336 - 347.999 pts | D+ | 256 - 267.999 pts |
| B | 320 - 333.999 pts | D | 240 - 253.999 pts |
| B– | 308 - 319.999 pts | D– | 228 - 239.999 pts |
| C+ | 296 - 307.999 pts | E | 0 - 227.999 pts |

The course grade is determined by the number of points you have, not by the percentage, and will be strictly enforced.

Homework: Homework will be assigned in the Homework tab in CANVAS at the end of each section covered in class but will not be collected. Doing homework is essential to your success in this course as is it is one of the best ways to prepare for quizzes and tests.

Attendance and Participation: You are expected to participate in class discussions and activities. Therefore, *it is absolutely essential that you attend class*. Excused absences are consistent with university policies in the undergraduate catalog <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx> and require appropriate documentation.

Quizzes: There will be seven quizzes on the dates listed in the calendar and the two lowest scores will be dropped. Quizzes are worth 15% of your grade. You must work individually on the quizzes, and no calculators are permitted.

Submitted work expectations: Submitted projects should be neat, organized, and clearly presented. Papers not meeting these standards may have the scores reduced or may be returned ungraded.

Using the Web: Please refrain from searching for homework solutions on the internet or using someone's notes from a previous semester. Your job in this course is to learn how to the methods for solving differential equations, not learn how to do a web search. Also, you will not have access to the internet on tests. If you are having trouble with an assignment ask your instructor for help.

Exams: We will have three semester exams which will be administered during the normal class time in our regular classroom. The specific sections covered by each exam are given on the tentative course calendar and will also be announced in class and on CANVAS. No calculators are permitted on exams. You will be asked to place personal belongings including (turned-off!) cell phones, backpacks, textbooks, notes, computers, etc. at the front of the classroom. It is recommended that you arrive to class a few minutes early on exam days in order to use all of the allotted time.

Cumulative Final: A cumulative final examination will be given during the regularly scheduled exam time for your section as shown on the calendar and the online Schedule of Courses. **We allow the final exam score, scaled appropriately, to improve your grade on one of the semester exams. That is, if your final exam score, scaled to be out the same number points as each of the semester exams, is higher than the lowest of your three semester exam scores, its score will replace that lowest test.**

Make-up policies: You may arrange to make-up a missed quiz or exam for excused absences. Acceptable absences include but are not limited to the following: you are participating in a UF-sponsored event and provide me with documentation at least two days (for a quiz) or a week (for an exam) in advance; you were verifiably ill during the quiz/exam and notified me within 24 hours of its conclusion; you are observing a religious holiday and have notified me of this during the first two weeks of classes; you have a court-ordered obligation and have provided me documentation two days/a week in advance. Please note that "I just didn't feel well" without documentation and travel plans are NOT excused. Missing an exam due to negligence will result in a **minimum** 10% penalty.

Make-up Projects: There are no make-ups, unless,

- 1) you are participating in a UF sponsored event or you are observing a religious holiday. In this case, you must turn in all your assignment **prior to the class** along with valid documentation.
- 2) you are present in class at the time of the collection but forgot to bring your assignment. In this case, you have 24 hours to bring the assignment to me with a 20% penalty. You must **notify and make arrangement with me before you leave the class that day.**

Class guidelines: It is expected that everyone in our class will act in a respectful manner:

- Please be respectful of your classmates and me while in class or office hours.
- I expect that you are committed to learning and will not miss class. Arriving late (after we have started class) or leaving early is disruptive and disrespectful. If however, you cannot avoid it, please arrange it in advance with me.
- Turn off all cell phones before the start of class.
- Laptops are not to be used in class (Facebook can wait!)

10-MINUTE POLICY: Only the students who are present in the first 10 minutes of the class and stay for the entire period will be allowed to participate in any of the class activities (including taking quizzes and turning in projects).

ONE WEEK POLICY: All grades are posted in the Canvas gradebook. You are responsible for verifying all grades are accurate. You have one week after a score is available to discuss any grade concerns with me. There is no grades dispute after one week.

INCOMPLETE: A student who has completed a major portion of the course with a passing grade but is unable to complete the final exam or other course requirements due to illness or emergency may be granted an incomplete, indicated by a grade of "I". This allows the student to complete

the course within the first six weeks of the following semester. The student must contact the course coordinator before finals week to sign an incomplete grade contract (<http://clas.ufl.edu/forms/incomplete-grade-contract.pdf>), and must provide documentation of the extenuating circumstances preventing him or her from taking the final exam. The grade of “I” is never used to avoid an undesirable grade, and does not allow a student to redo work already graded or to retake the course. See the official policy at <http://www.math.ufl.edu/department/incomplete-grades/>.

Students with learning disabilities: Students requesting class and exam accommodations must first register with the Dean of Students Office Disability Resource Center(DRC), www.dso.ufl.edu/drc/. That office will provide a documentation letter to the student to present to the instructor in Little 370. This must be done as early as possible in the semester, **at least 7 business days before the first exam**, so there is adequate time to make proper accommodations.

Academic honesty:Remember that you committed yourself to academic honesty when you registered at the University of Florida. All students are bound to

The Honor Pledge

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty 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.”

Academic Honesty Guidelines: “All students are required to abide by the Academic Honesty Guidelines which have been accepted by the University. The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust, and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. Violations of the Academic Honesty Guidelines shall result in judicial action and a student being subject to the sanctions in paragraph XIV of the Student Code of Conduct.”

In addition, we remind you that *lectures and the course materials given in this class are the property of the University/faculty member and may not be taped/shared without prior permission from the lecturer and may not be used for any commercial purpose. Students found to be in violation may be subject to discipline under the Student Conduct Code.*

6. ONLINE COURSE EVALUATION

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are available from July 29 – August 4.

Tips for the Course:

- *Mathematics is not a spectator sport.* Your participation and engagement with the material is essential.
- Discuss the topics with your classmates.
- Take advantage of my office hours. This time is set aside for us to help you.
- Don't hesitate to ask questions in class.
- Be reminded that 2 student hours devoted to assignments and preparation for every hour of classroom time is a reasonable expectation for an average student.

- Barring unforeseen medical or other serious conditions, I expect you to be in class on time every day. If you must miss a class, please let me know as soon as possible and be sure to contact a classmate to find out what you missed.
- If you are in trouble see me immediately. If you think you are in danger of failing (or of getting a grade that you do not want) you should see me immediately. I will not give you an extra credit assignment or an incomplete to help you avoid failing, but I can make recommendations regarding drops, study habits, test taking skills, future courses, etc.

Counseling and Wellness Center Contact information for the Counseling and Wellness Center:

<http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

This syllabus is subject to change. You will be notified if any changes are made.

Updated 1/7/2018

SPRING 2018 – MAP 2302 Calendar

Exam 1 (Chapters 1-2) –Wednesday, February 14

Exam 2 (Chapter 4) –Friday, March 16

Exam 3 (Chapter 7)-Friday, April 13

Cumulative Final Exam– Section 022G: Monday, April 30, 7:30AM-9:30AM

Section 0220: Wednesday, May 2, 3PM-5PM

| Monday | Wednesday | Friday |
|---|---|---|
| Jan 8 Intro/Section 1.1 | 10 Section 1.1 | 12 Section 1.2 |
| 15 MLK Holiday No class | 17 Section 1.3 | 19 Section 1.4 / Quiz 1(1.1, 1.2) |
| 22 Section 2.2 | 24 Section 2.3 | 26 Section 2.4/ Quiz 2(1.3, 1.4, 2.2) |
| 29 Section 2.4 | 31 Section 2.5 | Feb 2 Section 2.6/ Quiz 3 (2.3, 2.4) |
| 5 1 st order apps | 7 Section 4.1 | 9 Section 4.2 |
| 12 Review | 14 Exam 1 (Chapters 1-2) | 16 Section 4.3/ 1st order apps project due |
| 19 Section 4.4 | 21 Section 4.5 | 23 Section 4.6/ Quiz 4 (4.2, 4.3) |
| 26 Section 4.7 | 28 2 nd order apps | Mar 2 Catch-up/ Quiz 5 (4.4,4.5,4.6) |
| 5 HAPPY No class | 7 SPRING No class | 9 BREAK No class |
| 12 Catch-up | 14 Review | 16 Exam 2 (Chapter 4) |
| 19 Section 7.1 | 21 Section 7.2 | 23 Section 7.3/ 2nd order apps project due |
| 26 Section 7.4 | 28 Section 7.5 | 30 Section 7.6/ Quiz 6 (7.1,7.2,7.3) |
| Apr 2 Section 7.7 | 4 Section 7.9 | 6 Catch-up/ Quiz 7 (7.4, 7.5, 7.6) |
| 9 Catch-up/Review | 11 Review | 13 Exam 3 (Chapter 7) |
| 16 Section 8.1 | 18 Section 8.2 | 20 Section 8.3/ Laplace transform apps project due |
| 23 Section 8.4 | 25 Review | 27 Reading Day No Class |