

Syllabus for Math 2306 sec. 54 (CRN: 12205)

Spring 2019

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Office Hours: Monday 1:30–2:30 pm, Tuesday & Thursday 10:00–11:30 am, and by appointment

Course Home Page http://facultyweb.kennesaw.edu/lritter/Ritter2306_Sp2019.php

Course Description This is a three hour first course in Ordinary Differential Equations. Topics include methods of solving ordinary differential equations of first order; some theory and solution methods of linear differential equations; solutions using the Laplace transform; and Fourier series. Mechanical and electrical engineering applications are included. We will meet for lecture two times weekly MWF 12:20 pm to 1:10 pm in D 218. Students are expected to attend all lectures and to keep up with course assignments. All assignments will be posted on D2L and the course page http://facultyweb.kennesaw.edu/lritter/Ritter2306_Sp2019.php You should plan on visiting these venues often.

Prerequisites: A grade of C or better in Math 2202, or approval of the math department chair

All texts used in this course are open access and are linked on the class webpage.

Course Texts: *Ordinary Differential Equations: Math 2306* by L.R. Ritter, *Elementary Differential Equations with Boundary Value Problems* by William F. Trench, *Notes on Diffy Qs: Differential Equations for Engineers* by Jiří Lebl (No Calculator is Required for this Course.)

Learning Outcomes: Upon completing this course, students will be able to

1. solve first-order separable, linear, and some special differential equations, and use these methods to solve applied problems;
2. solve higher-order constant-coefficient linear differential equations and systems of differential equations, and use these methods to solve applied problems;
3. find Laplace transforms and inverse transforms, and apply these to solve differential equations;
4. find the Fourier series of a function.

Grading and Evaluation: Your course grade will be the weighted average of your score on 4 midterm exams, one final exam, and a quiz & in-class worksheet average. The grades will be weighted as follows:

Table 1: Grade Weights

Exam I (F 2/1)	Exam II (M 2/25)	Exam III (F 3/29)	Exam IV (F 4/26)	Quiz (weekly)	Classwork (weekly)	Final (F 5/3)
15%	15%	15%	15%	10%	10%	20%

A = 90%–100%, B = 80%–89%, C = 70%–79%, D = 60%–69%, F = 0%–59%

Homework, Quiz, & In Class Work: Homework problems for each topic covered will be assigned from the Trench and Lebl texts (and some additional problems created by Ritter). All assigned problems are listed in the homework document available in D2L and the course page. **I will not collect the homework.** Most class days, I will give either a short in class quiz that you take independently or a worksheet that you work on with one or more classmates. Problems on independent quizzes **will come directly from the assigned exercises.** I strongly advise you to

- complete each homework assignment immediately following coverage of the material;
- dedicate a folder to homework for this class, and keep your assignments neat and well organized;
- work at each problem until you can solve it correctly; get help if you need it, don't give up;
- practice using complete and proper notation while writing your homework.

There will be roughly 7 to 10 quizzes during the term. The two lowest quiz grades will be dropped, and the remaining averaged to obtain the 10% quiz grade. There will be roughly 10 to 15 in class worksheets during the term. The two lowest will be dropped, and the remaining averaged to obtain the 10% worksheet grade. A quiz or worksheet may be excused at my discretion (see attendance policy), otherwise a missed item will be assigned a grade of zero. **Make up quizzes will not be given under any circumstances. And no student will be permitted to come to class late or to leave early solely for the purpose of participating in a quiz or worksheet.**

Exams: We will have four midterm exams each worth 15% of the semester grade. The exam dates are shown in the grade table 1 as well as the important dates table 2 at the end of this syllabus. **Exams will be closed-book, and no use of a calculator will be allowed.** You may, at my discretion, be allowed to use one page

of notes/formulas of your own creation during exams. All four midterm exams are mandatory. Except in the case of an excused absence (see attendance and make-up policy), a missed exam will be assigned a grade of zero. We will have one comprehensive final during the time designated by the University. The final is 20% of the semester grade. If your course average prior to the final exam is at least 90%, you will be exempted from the final and will receive a course grade of A. If you are not exempted from the final under the above policy, **the final exam is mandatory**. The final exam grade may be substituted for the lowest midterm exam score **provided** your combined quiz and worksheet grade is at least 75%.

Attendance and Make-up Policy: Regular class attendance is critical to academic success. Hence I strongly encourage you to attend all classes and keep up with assignments and course events. An unexcused absence will result in a grade of zero for any graded item missed that day. That said, I will excuse an absence if (1) I am informed as soon as possible (via email or voicemail), and (2) there is a good reason. Good reasons include (but are not limited to) your illness or the illness of someone who depends on you, an academic or University sports commitment, a legal obligation, or an unforeseen travel issue. Reasons that are not excusable include (but are not limited to) over sleeping, or working on a project for another class.

Missing an Exam: All exams are mandatory. In order to be excused from an exam, you must notify me in advance (or as soon as circumstances allow), and provide documentation (e.g. doctor's note, order to appear, notification from a faculty adviser) of your reason for missing the exam. If you meet both of these criteria, I will allow your grade on the final exam to substitute for the missed exam.

Academic Integrity Every KSU student is responsible for upholding the provisions of the Statement of Student Rights and Responsibilities, as published in the Undergraduate and Graduate Catalogs. Section II of the Statement of Student Rights and Responsibilities addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimal one semester suspension requirement.

Notice on Course Withdrawal: Students are solely responsible for managing their enrollment status in a class;

nonattendance does not constitute a withdrawal. Per university policy, I will assign a grade of WF to all students who do not complete the semester, where not completing the semester is defined as ceasing to attend class and participated in graded items during or prior to the last two weeks of the semester. I am required to report the last date of attendance when assigning a grade of WF. **My compliance with this policy may affect your financial aid.**

Students with Disabilities I will attempt to accommodate all students with special needs to the best of my ability, but it is the responsibility of the student to make their needs known to me. Students with disabilities who believe they may need accommodations in this class are encouraged to contact the counselor working with disabilities at 470-578-7361 (Marietta) or 470-578-2666 (Kennesaw) as soon as possible to better assure that such accommodations are implemented in a timely fashion. (Additional contact information email: sds@kennesaw.edu and webpage: <http://studentsuccess.kennesaw.edu/sds/index.php>).

On Diversity and Inclusion: Kennesaw State University prides itself on offering a premiere, personalized educational experience for leadership and engagement within a diverse nation and world. This educational experience is achieved through recognition and appreciation of the differing backgrounds and experiences reflected within the University community. It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit.

Cell Phone, Tablet, Laptop Policy Unless otherwise stated, use of cell phones, laptops, or tablets is **not allowed during class**. Any student who must be repeatedly asked to refrain from texting or surfing the web will be invited to leave. **At no time will still or video photography be allowed during class.**

Table 2: Important Dates

Jan. 7	First Day Spring Classes	Jan. 21	Martin Luther King Jr. Day
Feb. 1	Exam 1	Feb. 25	Exam 2
Feb. 27	Withdrawal Deadline	Mar. 29	Exam 3
Apr. 1–5	Spring Break	Apr. 26	Exam 4
Apr. 29	Last Day of Spring Classes		
May 3	Final Exam	1:00–3:00 pm	D218