Syllabus Math 340, Summer 2024

Class format

Every week you should attend 5 lecture sessions. Lectures are on MTWUF, 8:00-9:15 AM, in Cardwell 130. You can find the detailed course schedule with topics to be covered in <u>ODE</u> <u>Schedule.pdf</u>

Instructor Details

Lecturer and Coordinator: Abhinav Chand Email: <u>achand1@ksu.edu</u> Office: Cardwell Hall 127 Office hours: MTWU 9:15-10:15 pm or by appointment (email to confirm)

Textbook

We will use <u>Notes on Diffy Qs: Differential Equations for Engineers</u> by Jiri Lebl. The textbook is available free of charge. We will aim to cover chapters 0,1,2,3 and 6 of the book.

Calculator

You are allowed to use any calculator without a QWERTY keyboard.

Resources

You should contact your instructor for any exceptional circumstances. We encourage you to seek help from the instructor during their office hours. The math help session is a great resource for math tutoring and are held Monday through Friday, beginning the second week of class. Several instructors will be present to assist you. <u>Math HelpLinks to an external site</u>.

Other K-state Tutoring: <u>Academic Achievement Center Tutoring ServicesLinks to an external</u> <u>site.</u>

Steve Brunton ODE videos: <u>Differential Equations</u>.
3Blue1Brown Calculus videos: <u>Essence of Calculus</u>.
3Blue1Brown Linear Algebra videos: <u>Essence of Linear Algebra</u>.

Homework

Homework is due 11:59 p.m. (CST) on Thursday every week (except for the first homework) and is to be **scanned** and **uploaded** to the assignments page on canvas. They can be found by clicking on the Assignments link. These homework are assigned and graded weekly. Write your name, your instructor's name, the class time, and the class number (Math 340) on the top of the first page. Please write neatly and legibly, and present your answers in an organized and coherent form. *You must show work for every problem solved; a correct answer alone will not receive any credit!* Please put your solutions in the exact order in which the problems were assigned, label your assignment with the assignment number. A selection of problems from the written homework will be graded and your assignments will be graded on canvas. *No late homework will be graded!*

Your lowest one homework score will be dropped.

Scanning Instructions:

1. The scanned homework should be a **single pdf file.**

2. Your writing should be very clear and the image should be readable without zooming in our out.

3. You can use any of the freely available scanner apps. (Adobe Scan, Apple notes etc.)

4. You are also allowed to use any writing tablet and upload the pdf file of your homework.

5. If the grader cannot see the writing clearly, you will be deducted points for it. Make sure your writing is legible before uploading.

Note the score for this category is 35% of the total grade as shown in Grading section.

Video Assignment

Every week your instructor will assign videos for you to watch. Your job is to watch the video carefully, jot down notes, comments and questions. You will type your notes, comments and questions on canvas. You are not expected to understand everything in the video, but you should write a critical assessment of the concepts explained and specific questions you have concerning the topics explained.

Note the score for this category is 10% of the total grade as shown in Grading section.

Attendance/Participation

You are expected and encouraged to attend the lectures. The class will consist of lecture, problem session, group work etc. You are expected to do the assigned problems in class. The

grade for this category will be determined as follows: Attendance/ Participation Score= min(5,(No. of present days+5/ Total number of days)*5)

Note the score for this category is 5% of the total grade as shown in Grading section.

Exams

There will be three 75 minutes midterm exams and a comprehensive final exam.

The midterm exams will be held **Friday at 8:00 - 9:15 a.m** (usual class time). on June 14, June 28, and July 12. The final exam will held on July 26 during the usual class time.

At each exam, you need to bring writing instruments (pens or pencils and an eraser). No books, cell phones, tablets, or laptops will be permitted. *You may also bring one sheet* of 8 1/2 by 11 inch paper, with whatever notes, equations or formulas you wish to write (written on both sides).

Grading

Your final grade is determined by the total number of points obtained from the following categories:

Homework	35%
Video Watching with written Summary assignment	10%
Attendance/Participation	5%
Midterm Exams	36%
Final Exam	14%

Missed Exams Policy: If you expect to miss a midterm exam for a legitimate reason (illness or hospitalization, for example), please notify your instructor as soon as possible. If your instructor deems the absence excusable, then your other exams will be weighted to make up for the missing one; otherwise, your score on it will be zero. *There will be no make-up exams*. A grade of "incomplete" may be given to a student who has missed more than one midterm or the final exam, but only if verifiable circumstances, documented by the Office of Student Life, warrant it. It is your responsibility to discuss the situation with your instructor should your personal situation suggest this as a possibility. An "incomplete" is not a substitute for a low grade!

Curve

The default curve for the course will be the usual 90-80-70-60 scale with 90% the minimum A, 80% the minimum B and so on. After assessing the performance of the class as a whole (mean and standard deviation) the coordinator may decide to shift the above scale slightly. (*This is not to bring down the number of students getting A, but rather to adjust the grade if the course becomes too difficult for the whole class.*)

Tips for success

Generally, students perform best in mathematics classes when they work consistently and solve lots of problems. *You must study for this course every day.* You are developing a skill; no one would expect to become good at tennis if he/she only played once a month. Differential equations is a difficult class. The difficulty of the material increases as the course progresses. Many students may think, after the first couple of lectures, that one can get away without studying constantly or coming to the lectures.

Keys to success:

- Before lecture, preview the relevant section of the text and attempt to work on the assigned problems.
- After lecture, review the text more carefully, comparing it to the notes you took in lecture. Work all homework problems (before lecture!). While doing this, consult the examples in the text and carefully read the material explaining them.
- Before Exams, re-read the chapter(s) from the book and your lecture notes, and re-do old homework problems, as well as all problems from the textbook, which are similar to them. If additional sample exam problems are provided by your instructor, work on them too.
- Visit your instructor during office hours and/or sit in a Help Session. *Ask about poorly understood points as soon as possible.*

1. Statement Regarding Academic Honesty

Kansas State University has an Honor and Integrity System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor and Integrity System. The policies and procedures of the <u>Honor and Integrity System</u> apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. A component vital to the Honor and Integrity System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

2. Statement Regarding Students with Disabilities

At K-State it is important that every student has access to course content and the means to demonstrate course mastery. Students with disabilities may benefit from services including accommodations provided by the Student Access Center. Disabilities can include physical, learning, executive functions, and mental health. You may register at the <u>Student Access</u> <u>Center</u> or to learn more contact:

Manhattan/Olathe/Global Campus – Student Access Center accesscenter@k-state.edu 785-532-6441

K-State Salina Campus – Julie Rowe; Student Success Coordinator jarowe@k-state.edu 785-820-7908

Students already registered with the Student Access Center please request your Letters of Accommodation early in the semester to provide adequate time to arrange your approved academic accommodations. Once SAC approves your Letter of Accommodation it will be e-mailed to you, and your instructor(s) for this course. Please follow up with your instructor to discuss how best to implement the approved accommodations.

3. Statement Defining Expectations for Classroom Conduct

All student activities in the University, including this course, are governed by the <u>Student</u> <u>Judicial Conduct Code</u> as outlined in the Student Governing Association <u>By Laws</u>, Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

4. Statement on Mutual Respect and Inclusion in K-State Teaching and Learning Spaces

At K-State, faculty and staff are committed to creating and maintaining an inclusive and supportive learning environment for students from diverse backgrounds and perspectives. K-State courses, labs, and other virtual and physical learning spaces promote equitable opportunity to learn, participate, contribute, and succeed, regardless of age, race, color, ethnicity, nationality, genetic information, ancestry, disability, socioeconomic status, military or veteran status, immigration status, Indigenous identity, gender identity, gender expression, sexuality, religion, culture, as well as other social identities.

Faculty and staff are committed to promoting equity and believe the success of an inclusive learning environment relies on the participation, support, and understanding of all students. Students are encouraged to share their views and lived experiences as they relate to the course or their course experience, while recognizing they are doing so in a learning environment in which all are expected to engage with respect to honor the rights, safety, and dignity of others in keeping with the K-State Principles of Community.

If you feel uncomfortable because of comments or behavior encountered in this class, you may bring it to the attention of your instructor, advisors, and/or mentors. If you have questions about how to proceed with a confidential process to resolve concerns, please contact the <u>Student</u> <u>Ombudsperson Office</u>. Violations of the <u>student code of conduct</u> can be reported using the <u>Code of Conduct Reporting Form</u>. You can also report <u>discrimination</u>, <u>harassment or sexual harassment</u>, if needed.

5. Statement Regarding Discrimination, Harassment, and Sexual Harassment

Kansas State University is committed to maintaining academic, housing, and work environments that are free of discrimination, harassment, and sexual harassment. Instructors support the University's commitment by creating a safe learning environment during this course, free of conduct that would interfere with your academic opportunities. Instructors also have a <u>duty to</u> report any behavior they become aware of that potentially violates the University's policy prohibiting discrimination, harassment, and sexual harassment, as outlined by <u>PPM 3010</u>.

If a student is subjected to discrimination, harassment, or sexual harassment, they are encouraged to make a non-confidential report to the University's <u>Office for Institutional Equity (OIE)</u> using the <u>online reporting form</u>. Incident disclosure is not required to receive resources at K-State. Reports that include domestic and dating violence, sexual assault, or stalking, should be considered for reporting by the complainant to the <u>Kansas State University Police Department</u> or the <u>Riley County Police Department</u>. Reports made to law enforcement are separate from reports made to OIE. A complainant can choose to report to one or both entities. Confidential support and advocacy can be found with the <u>K-State Center for Advocacy</u>, Response, and Education (CARE). Confidential mental health services can be found with Lafene Counseling and <u>Psychological Services (CAPS)</u>. Academic support can be found with the <u>Office of Student</u> Support and Accountability (OSSA). OSSA is a non-confidential resource. OIE also provides a <u>comprehensive list of resources</u> on their website. If you have questions about non-confidential and confidential resources, please contact OIE at <u>equity@ksu.edu</u> or (785) 532–6220.