# Math 2574    Honors Calculus IV                    Spring 2024

**Instructor**:  Peter Webb
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**Course Site:**  Canvas site and  http://www.math.umn.edu/~webb
**Office Hours**:  Monday 11:15-12:05, Wednesday 2:30-3:30, Friday 12:20-1:20 or by
             appointment.

**Text:**                Edwards & Penney, Differential Equations & Linear Algebra, 4th Edition.
This is being made available to you through Inclusive Access, which charges automatically to
your account. You can opt out, see the Canvas site. The 3rd edition is also something you can
work from, if you find a copy. The only differences I can see with the 3rd edition are some
different use of color, and a new section 7.4, changing the numbering of sections 7.4-7.6.

## Course Content
This course consists of two related parts, linear algebra (matrices, determinants, Gaussian
elimination and the various things that can be deduced from it, vector spaces, eigenvalues,
diagonalization) and ordinary differential equations (linear equations, various methods of
solution, examination and interpretation of the solutions, especially of some frequently met
equations). We will cover almost all of chapters 1, 2, 3, 4, 5, 6, 7 of the book. After that, topics
will be selected from chapters 8, 9, 10 according to the time available.

## Course Assessment
Your final grade will be related to an overall score for the course, which will be made up of
homework 4% and quizzes 16%, 3 mid-term exams 16% each, and a final exam 32%.

## Exams
There will be three full-period mid-term exams, to be held on **Thursday February 15,
Thursday March 21** and **Thursday April 18**. The final exam is one of the common final exams
and will be held at the official university times, which is **12:00-3:00 Thursday May 2**. The final
exam will probably not be held in our usual classroom.

## Homework and Quizzes
There will be 13 homework sets and 10 quizzes. Homework will be due on Thursdays, starting
January 25. There is a list of homework questions on a calendar and some of them have stars by
them. You should submit solutions only to the homework questions with stars. Homework will
be graded by completion, each starred question scoring a point if you submit a genuine attempt at
it. Altogether there will be 13 homework assignments and the lowest 5 scores will be dropped.

Except on days when there is an exam, there will also be a short quiz during the Thursday
recitation periods on the topics covered in the homework due that day. The first quiz will be on
Thursday January 25, the same day the first homework is due. There will be 10 quizzes, of which
the lowest 2 scores will be dropped.

Your TA will be in charge of dealing with the administration of homework and quizzes aside
from this.  This means that your TA determines their own policy for things like what happens if

homework is late or what happens if you miss a quiz, bearing in mind that the lowest 5 homework scores and the lowest 2 quiz scores will be dropped. If you want to know whether it is possible to miss a quiz or something of that kind, ask your TA. The professor (me!) will not know the answer.

## Absence from exams

Missing a midterm is permitted only if you have a compelling reason. Except in extraordinary situations you should obtain permission from the **professor, not your TA** to miss an exam in advance; otherwise you will be awarded a 0. If you are excused from taking a midterm, one possibility is that your course grade will be determined by giving extra weight to the final exam. I will give make up exams only for reasons sanctioned by the university. This includes university sponsored activities and documented illness. Students missing the final exam will fail the course unless they have a very good reason, in which case see Incompletes below.

## Attendance

Students are expected to attend all lectures and recitations. We get an impression of who is attending and who is not, and this can affect our decisions when someone is close to a grade boundary.

## Expectations of written work

In most cases in quizzes and exams you will not get full credit if you simply write down the correct answer. To get full credit you may need to give reasons or write an explanation of how you got your answer. Where explanations need to be given, these should be written out in sentences i.e. with verbs, capital letters at the beginning, periods at the end, etc. and not in an abbreviated form.

## Prerequisites

Math 1572H or Math 2573H, honors student and permission of University Honors Program.

## Computers and Calculators

Calculators will be allowed on quizzes and exams. Other electronic equipment may not be used or be available during quizzes and exams. All exam and quiz questions can be done without a calculator. There will be a standard rubric on quizzes and exams, to the effect that you must show your work so that we can see you know how to do the question without using a calculator. This means that you must show all steps in a calculation or an argument where you give reasons, so that only mental arithmetic is used to go from one step to the next.

## Incompletes

These will only be given in exceptional circumstances. A student must have satisfactorily completed all but a small portion of the work in the course, have a compelling reason for the incomplete, and must make prior arrangements with the **professor** for how the incomplete will be removed, well before the end of the semester.

## Academic Dishonesty

Academic dishonesty in any portion of the academic work for a course shall be grounds for awarding a grade of F or N for the entire course.

**The text book and Inclusive Access**
You have enrolled in a course using Inclusive Access (IA). This means your course materials will be delivered electronically to the Canvas course website. They will be available by the first day of class, and you will be charged automatically for them through your student account. You will access your IA course materials through the course page in Canvas. If you do not want to participate in the IA program, you can opt out of the access and the fee will be refunded as long as you opt out before the deadline. The Bookstores will send an IA welcome email near the beginning of the semester, and this email will have instructions about how to opt out and when the deadline is for opting out. Typically you have about a week into the semester to opt out. The welcome email will also contain other useful information about IA, so please watch for it. The subject line of the welcome email will be "Important Course Materials Info: Charges to Your Student Account", and it will come from U of M Bookstores (from the email address: no-reply@verbasoftware.com, so it sometimes goes to a spam folder). If you have any questions about inclusive access, please contact the Bookstores at inclusiveaccess@umn.edu.

Date of this version of the schedule: 1/14/2024