

COURSE OUTLINE

MATH 200: Calculus III, Spring 2025, CRN: 22030

Your Instructors

Primary Instructor: William (Tom) Thompson **Email:** wthompso@uvic.ca

General Course Information

Number of Units: 1.5

Pre-requisites: Math 101 - Calculus II

Credit will be granted for only one of Math 200, Math 202, or Math 205.

Content of the Course

Overview: We cover the following topics

- **Real Space:** Points in Space, Cylinders and Quadric Surfaces, Vectors in Space, Vector Operations and Projections, Lines and Planes, Curves in Space and Parametrizations, Calculus of Curves, Classical Mechanics of Curves.
- **Multivariable Functions and Partial Derivatives:** Multivariable Functions, Limits, Partial Derivatives, The Chain Rule, Directional Derivatives, Linearization and Differentials, Optimization.
- **Multiple Integrals:** Double Integrals, Triples Integrals, Integrals in Non-Cartesian Systems, Moments of Integration in Physics, Substitution.
- **Line and Surface Integrals:** Parametrization of Surfaces, Introduction to Line and Surface Integrals.

In order, these are chapters 12 - 15, and some of 16 in the textbook for this course. Line and Surface Integrals will be included only if time permits.

Course Materials and Online Resources

Course Pack: *Math 200 Course Pack: Calculus III*, by William (Tom) Thompson. This pack contains all the skeleton lecture notes. It will be posted on the Course Webpage and it is recommended that students have a method of editing the document.

Calculator: *Sharp EL-510 RTB Calculator* and the Sharp EL-510R variants (older models) are the only approved model for use on exams. You may purchase one of these calculators from the bookstore for \$15.

Course Webpage: The webpage can be found on BrightSpace. All course announcements, including lecture notes, recommended problems and instructions for tests will be posted there. There will also be a forum where you can converse with other students and ask questions to either the instructor or other students. We expect you to check the site regularly.

Textbook: *Thomas' Calculus Early Transcendentals*, by Hass, Heil and Weir. There is a free online version of this textbook posted on BrightSpace. There is a physical copy and an e-text version available at the bookstore. This will be mainly used as a reference textbook and a source of practice problems.

Class Meetings**Lecture**

Section	Days	Time	Room
A01	Mondays and Thursdays	8:30 am - 9:50 am	HSD A240

Attendance is mandatory and you must attend the lecture section that you are registered in. If you are unable to attend a lecture, it is your responsibility to catch up by reviewing the material covered that day, going over the assigned practice problems, and asking your instructor what has been missed.

Attendance is mandatory and you must attend the tutorial section that you are registered in.

Assessment Grading

Your final percentage grade will be computed according to the following scheme.

	Assignments (x5)	Tests (x2)	Final Exam
Frequency	≈ Every 2 Weeks	≈ Every 4 Weeks	To Be Assigned
Weight	30% (6% each)	30% (15% each)	40%

Percentage scores will be converted to letter grades according to the university-wide standard table (Undergraduate: <https://www.uvic.ca/calendar/undergrad/index.php#/policy/S1AAgoGuV>). The Department of Mathematics and Statistics does not award 'E' grades or offer Supplemental Examinations in any of its courses.



Assessment Information

Assignments: An assignment will be posted about every two weeks in the course (for a total of five assignments) and you will have a week to complete each one. Each assignment is evenly weighted and will be worth 6% towards your final grade. Solutions must be written, complete and submitted to a dropbox (information announced online) in the proper format that is requested. The dates are given below.

Tests: There will be two tests given in this course where each will take place during lecture and 80 minutes in length. Be sure to arrive on time. Each test is evenly weighted and will be worth 15% towards your final grade. The dates are given below.

Final Exam: The final exam is cumulative, and the final assessment that synthesizes all we have learned. *You must receive a grade of 40% on the final exam to pass the course.* Students are strongly advised not to make plans for travel or employment during the final examination period as special arrangements will not be made for examinations that conflict with such plans.

Missed Work and Remark Requests

Assignments: *No extensions or make-ups will be offered.* If you have a known conflict with the due date such as a religious observance, then it is expected you complete the homework early if possible. If you are unable to complete a homework due to an unanticipated or prolonged conflict such as a serious illness or family affliction, then you must contact Tom as soon as possible to be exempted, and may be required to show documentation. In this case the weight of the homework will be shifted to the remaining homework.

Tests: *No extensions or make-ups will be offered.* If you are unable to write a test for reasons such as a serious illness, accident, family affliction, or religious observation, then you must contact Tom within 7 days of the missed test and may be required to provide documentation. If you have an approved miss of a single test, the final exam will be worth 55%. If you miss both tests it is expected that you have a meeting with Tom to assess your progress in the course and options (which may be a request for a late withdrawal).

Final Exam: Off-schedule final examinations (i.e., deferred examinations) are given only in accordance with the university policy as outline in the calendar. If you are unable to write a final examination due to illness, accident or family affliction, please refer to the following webpage on how to proceed: <https://www.uvic.ca/calendar/future/undergrad/index.php#/policies> under Academic Concessions.

Remark Requests: For assignments and midterms, if you believe that your assessment has been incorrectly marked, you must write a short (at most one page) explanation discussing the specific error you believe was made and email it to Tom. This request must be submitted no later than 7 days after the assessment is returned to you. Remark requests for final exams are done formally through the Registrars Office by filling out the form <https://www.uvic.ca/registrar/assets/docs/record-forms/grade-review.pdf> and paying a \$25 fee.



Course Schedule

Week of	Sections Covered	Notes
09/09/23	Course Outline, 2.1 - 2.3	Assignment 1 Assigned
16/09/23	2.3 - 2.4	Assignment 1 Due
23/09/23	2.5 - 2.7	Assignment 2 Assigned
30/09/23	3.1 - 3.3	Assignment 2 Due
06/10/23	3.3 - 3.4	Midterm 1
13/10/23	3.4 - 3.7	Assignment 3 Assigned
20/10/23	Reading Break	Assignment 3 Due
27/10/23	3.7 - 3.8, 4.1	Assignment 4 Assigned
06/11/23	4.1 - 4.4	Assignment 4 Due
13/11/23	4.5	Midterm 2
20/11/23	4.6 - 4.7	Assignment 5 Assigned
27/11/23	4.7 - 5.2	Assignment 5 Due
03/12/23	Review	

The above represent sections of the course pack and not the textbook. Relevant sections to Thomas' Calculus (for reference) may be found in the title of each section in the course pack. The above are only approximations of when sections are covered and the pace might be either quicker or slower than the above.

The following are Important Administrative Dates:

Classes Begin: Sep 9

Course Add Deadline: Sep 25

Reading Break: Oct 20 - Oct 24 (overlaps with Family Day)

Course Drop Deadline: Oct 28

Classes End: Dec 6

Examination Period: Dec 11 - Dec 26

Drop dates are provided by the following table:

100% Fee Reduction	50% Fee Reduction	Academic Drop No Reduction
Sep 22	Oct 12	Oct 28



Assessment Schedule

Note that by the above, Assignment 3 is the only assignment not due on a Monday.

	Assignment 1	Assignment 2	Assignment 3	Assignment 4	Assignment 5
Assigned	Sep 9	Sep 23	Oct 13	Oct 27	Nov 20
Due	Sep 16	Sep 30	Oct 19	Nov 6	Nov 27

Midterm 1	Midterm 2
Oct 6	Nov 13

Final Exam
To be announced at: https://www.uvic.ca/students/academics/exams-grades-and-transcripts/exam-schedule/index.php

Commitments, Policies, Practices and Academic Integrity

The University of Victoria has a firm policy on Academic Integrity:
<https://www.uvic.ca/students/academics/academic-integrity/index.php>.

Policies and Practices of the Department of Mathematics and Statistics are provided by the following link:
https://www.uvic.ca/science/math-statistics/assets/docs/undergraduate/undergrad_policies_202205.pdf

Further information such as accessibility, commitments of the university, etc. are provided by the following link:
https://www.uvic.ca/science/math-statistics/assets/docs/undergraduate/undergrad_information_202205.pdf

The policies and information in the above links are deemed to be part of this outline.

How To Get Help

Instructor Office Hours: Your instructor will host office hours weekly. The times and location will be announced on the Course Page.

Forums: The Course Page will have a forum where you may ask questions to your classmates or instructor.

The Math and Stats Assistant Center: This center is staffed with talented Teaching Assistants who are happy to discuss 100- and 200-level mathematics and statistics concepts with you, whether you are struggling with a course or aiming for an A+! Please see <http://www.uvic.ca/msac> for more information.

Math Club: Social connections are as important now as ever! Consider joining Students in Undergraduate Mathematics and Statistics (SUMS) Please see <http://www.uvic.ca/science/math-statistics/current-students/undergraduate/sums/index.php> for more information.

