

Syllabus
MATH 415/515. Introduction to Analysis III.
SPRING 2023

Instructor: Dr. Micah Warren, Fenton 318, 541-346-5618.

**Syllabus subject to change

Time and Location: M,W, F. 900-950, 125 LLCN

Office Hours: Tuesday 4:00 - 5:00
Thursday 3:00 - 4:00 or by appointment.

Final: 10:15 Tuesday, June 13

Grader: TBD

Standard Course description: Differentiation and integration on the real line and in a dimensional Euclidean space; normed linear spaces and metric spaces; vector field theory and differential forms.

Textbook: Spivak: *Calculus on Manifolds*

Prerequisites: Prereq: MATH 414/515

Learning Outcomes: The aim of this course is to introduce integration theory on manifolds, including differential forms involving tensor algebra. Students will be able to apply Stokes' theorem.

Grading: There will be weekly assignments, a midterm and a final. They will count toward the grade as follows.

Homework 35%

Midterm 25%

Final 40%.

Grades are "curved" in the general sense that I won't be using "90% => A" etc. Historically, my exams have mean score in the 60-70% range. At the end of the course the grades will be computed and curved, however the correspondence between position on the curve and the letter grades is not predetermined: In particular in a smaller upper division course I'm OK to give out As to any students who have demonstrated they have mastered the material.

Homework: Homework will be assigned on Canvas. It will be due on Friday at the beginning of class. No late homework accepted. Not all selected problems will be scored. You are encouraged to work with each other on the homework. Each assignment should be written up on your own. As a general rule, you are responsible for (that is, may be expected to know on an exam) any material that was covered by a homework problem, whether or not a similar example was covered in lecture.

Exams: No calculators/smart watches, etc are available for the exams. Exams can only be taken other than the scheduled time if arrangements are made in **advance**. Obviously, no collaboration on the exams. I expect the exam to happen on the sixth or seventh week.

Final: The final exam is cumulative. Faculty legislation prohibits final exams from being administered early. Don't miss the final.

Academic dishonesty: Any type of academic dishonesty will not be tolerated. In the event of academic dishonesty, the offense will be reported to the Office of Student Conduct and Community Standards and the student will be sanctioned up to receiving a failing grade in the course.

Students with Disabilities: If you are a student with a documented disability, please meet with me during the first week of class to discuss your needs. If you have not already requested a notification letter from Disability Services outlining recommended accommodations, please do so soon.

Other general university policies: Please see general universal policies (some of which are covered above, some which aren't): <https://canvas.uoregon.edu/courses/196884/pages/general-university-classroom-policies>