

ACKNOWLEDGEMENT

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the $x^w m\theta k^w \acute{a}y\acute{a}m$ (Musqueam) people.

COURSE INFORMATION

Course Title	Number	Webpage	Credit Value	Instructor
Real Variables II	Math 321	Through Canvas	3	Sven Bachmann

First day of teaching: Monday, January 5; Last day of teaching: Friday, April 10.

Lectures are on MWF 9:00am-9:50am in Buchanan B315

Midterm break: February 16-20.

Office hours (subject to change): F 10:00am-11:00am, MATH 228

PREREQUISITES

MATH 320

LEARNING MATERIALS

The course material is defined by what is covered in the lectures and homework assignments. We will follow closely the classic textbook:

Principles of Mathematical Analysis by Walter Rudin.

There are many other good textbooks, some of them are free as for example this one.

Topics to be covered include:

1. The Riemann and Riemann-Stieltjes integrals
2. Sequence and series of functions
3. Continuity and compactness
4. Fourier series
5. The inverse and implicit function theorems

Proofs are integral to — and in fact an essential part of — the course material.

Students are encouraged to attend office hours.

ASSESSMENTS OF LEARNING AND COURSE GRADE

There will be

1. Weekly homework assignments
2. Two midterm exams
3. One final exam

The assignments are due Mondays at 9:00. Homework should be submitted online using Canvas.

The midterm exams are held in-class on Friday, February 13 and Friday, March 13.

The course grade will be given by

Homework: 5%, Midterms: 20% each, Final: 55%.

In order to obtain the maximum 5% available for the homework, 10 sheets must be handed in during the term. They will not be marked, but checked for evidence of sufficient work (at least three-quarters of the problems worked out).

All assertions require an argument unless the problem states otherwise. No matter the operative word ('prove', 'find', 'solve', 'establish', 'calculate', 'determine',...), you must justify your answer. Written work should be presented carefully, in complete English sentences, and with sufficient detail. A correct sequence of formulas will only receive partial credit, an unstructured cloud of formulas and incoherent text will receive none.

Missing a midterm:

There is no make-up midterm. Missing a midterm for a valid reason normally results in the weight of that midterm being transferred to the final exam, resulting in HW: 5%, M: 20%, F: 75%. Examples of valid reasons include illness and travel to play a scheduled game for a varsity team. Examples of reasons that are not valid include conflicts with personal travel schedules or conflicts with work schedules. If you miss a test, you must submit a self-declaration form for reporting a missed assessment within 24 hours of the midterm time.

After midterm grades are released:

Solution of the problems will be available on the midterm assignment page. Please consult them before contacting us about your grade. If you think there is a marking error, contact the TA with a detailed request specifying which question should be reviewed and why. Alternatively, you can attend office hours. Requests will be considered within one week after the grade release.

Academic concessions for final exam are handled through your Faculty Advising Office.

UNIVERSITY POLICIES

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence. UBC values respect for the person and ideas of all members of

the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom. UBC provides appropriate accommodation for students with disabilities and for religious observances. UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions. Details of the policies and how to access support are available on the UBC Senate website.

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