

STAT 306 – Introduction to Probability

Summer 2026 Term 1

Dr. Grace Tompkins
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Acknowledgement

UBC's Point Grey Campus is located on the traditional, ancestral, and unceded territory of the $x^w m \theta k^w \acute{y} \acute{a} m$ (Musqueam) people. The land it is situated on has always been a place of learning for the Musqueam people, who for millennia have passed on their culture, history, and traditions from one generation to the next on this site.

Course Information

STAT 302 covers basic notions of probability, random variables, expectation and conditional expectation, discrete and continuous probability distributions, limit theorems. STAT 302 is equivalent to MATH 302. Proofs and formal mathematical reasoning and argumentation are an important component of the course. Prerequisites: One of MATH 200, 217, 226, 253 or 254.

Office Hours

Teaching Team Member	Date/Time	Location
Grace Tompkins (Instructor)		
Isaac Rankin (TA)		
Nathan Cantafio (TA)		
Mohammad Shoja (TA)		

Course Structure

This is a condensed term - we move fast!

- **Pre-class reading:** 2 - 3 hours. Come to lecture prepared to do problems!
- **Weekly Assignments:** 4 - 5 hours
- **Lectures:** 6 hours (2 hours x 3 times a week)

The following is the schedule of topics (subject to change):

Week	Class	Date	Topics	Evans + Rosenthal	Work Due
1	1	Tues May 12	Course Intro, Set Theory	1.1 - 1.2	
	2	Wed May 13	Properties of Probability Models,	1.3	
	3	Fri May 15	Permutations, Combinations	1.4	
2	4	Tues May 19	Conditional Prob, Independence	1.5.1	
	5	Wed May 20	Random Variables, Distributions	1.5.2, 2.1, 2.2	Assignment 1
	6	Fri May 22	Discrete RV/Families	2.3	
3	7	Tues May 26	Continuous RV/Families, Normal Distribution	2.4	
	8	Wed May 27	CDFs, Transformations,	2.5, 2.6,	Assignment 2
	9	Fri May 29	Joint Distributions, Marginal Dist,	2.7,	
4	10	Tues June 2	MIDTERM		
	11	Wed June 3	Conditional Dist, Independence	2.8	
	12	Fri June 5	Expected Values, Variance,	3.1,3.2	
5	13	Tues June 9	Covariance, Correlation, MGF,	3.3, 3.4	
	14	Wed June 10	Conditional Expectation, Inequalities	3.5, 3.6	Assignment 3
	15	Fri June 12	Convergence, part 1	4.1, 4.2	
6	16	Tues June 16	Convergence, part 2	4.3, 4.4	
	17	Wed June 17	Review session		Assignment 4

Grade Breakdown

- **Assignments: 20%**
 - Wed. May 20th, 11:59pm
 - Wed. May 27, 11:59pm
 - Wed. June 10, 11:59pm
 - Wed. June 17, 11:59pm
- **Midterm: 30%**
- **Final Exam: 50%**

Assignments:

- Must be **hand written** (tablet or paper) and submitted on GradeScope. No typed assignments, unless you have accommodations. Write clearly. If the TA cannot read your writing, they will not grade it.
- **Late policy:** see Policies below

Examinations:

- Must submit an academic concession form by email to the instructor no more than 48 hours after the examination for extenuating circumstances. Please notify the instructor as soon as possible.
- If you sit the examination, there are no concessions given after the fact.
- There are no makeup exams. If you miss a midterm and are granted a concession, the weight will shift to the final.

Auditing Students

Auditing students are expected to complete all assessments (see above). All assessments are graded on a pass/fail basis for those officially auditing. You must be registered as an auditing student to attend lectures due to capacity limitations.

Course Communications

We will be using Canvas as our primary platform of all course-related communications. Piazza will be enabled for peer discussion. This will be lightly monitored by the teaching team. Inappropriate posts will be removed.

Please attend lecture/office hours to get help from the teaching team!

Policies

Regrade Requests

Regrade requests must be sent directly to the instructor via email within three days of the assessment being returned. The email must clearly justify which questions are to be regraded, and why. The instructor reserves the right to regrade the entire assessment, resulting in a higher or lower mark than originally provided.

Late Policies

5% deduction per hour late. No submissions after 24 hours (solutions will be posted). With the condensed term, we don't have a lot of wiggle room. Sorry.

Extensions

Students must submit academic concession form at least 6 hours before due date for extenuating circumstances.

Academic Concession

UBC no longer requires a doctor's note (or supporting documentation) for [academic concession](#). A self-declaration will suffice – [here is a template you can use](#). The form is also posted on our Canvas page. Please submit this to the instructor via email.

Plagiarism

Plagiarism, which is intellectual theft, occurs where an individual submits or presents the oral or written work of another person as his or her own and can include:

- multiple students submitting the same response
- copying from sources without citing them
- copying solutions from generative AI (ChatGPT, Claude, Gemini, etc)

Students are responsible for ensuring that any work submitted does not constitute plagiarism. Students who are in any doubt as to what constitutes plagiarism should consult their instructor before handing in any assignments.

For more information see the [UBC Academic Misconduct policies](#).

UBC's Policies and Resources to Support Student Success

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, spiritual and cultural 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 [here](#).

Your personal health

If you're sick, it's important that you stay home – no matter what you think you may be sick with (e.g., cold, flu, other). Your precautions will help reduce risk and keep everyone safer. The structure of this class is intended to provide flexibility so that you can prioritize your health and still be able to succeed.

If you do miss class because of illness:

- See annotated slides on Canvas
- Consult a classmate
- Come to office hours once you're feeling better
- Use Piazza to carry out discussions with your classmates.

If you miss an assessment due to illness, see the above section on Academic Concessions, and review the UBC policy here:

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,329,0,0>

Above all, please take care of yourself and be kind to yourself and your classmates. If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, I strongly encourage you to seek support. UBC Counseling Services is here to help: call 604 822 3811 or visit their website. Consider also reaching out to a friend, faculty member, or family member you trust to help get you the support you need.

Instructor health

If I am ill, then I will not come to class. If that happens, here's what you can expect:

- If I am well enough to teach, I will conduct virtual lectures through Zoom until I am well. If this happens, a Canvas announcement will be made. You can anticipate that this would very likely be a last minute announcement. Our classroom will still be available for you to sit and attend an online session, although it is recommended that you bring headphones.
- If I am not well enough to teach, it is possible that one or more teaching assistants will take my place. But if not, we will either try to make up for lost time, make new resources to aid in your learning, or make accommodations regarding the assessments.