



MATH 335: INTRODUCTION TO MATHEMATICS

Instructor: Shawn Desaulniers
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Office: Math Annex 1112
Class: Mon, Wed, Fri: 11:00 – 11:50 in MATH 102
Workshop: Tue: 11:00 – 11:50 in MATH 102 and MATH 204
Office Hours: TBA

COURSE OBJECTIVES: MATH 335 is a course in mathematics and not a course in teaching methodologies. It is an intensive course with a required tutorial. Our primary learning objective is to learn how to learn mathematics independently. Not for credit in the Faculty of Science. Students who obtain credit at UBC for any other mathematics course cannot in the same or later years obtain credit for MATH 335.

Topics include introductions to the following subjects:

1. Foundations of Arithmetic and Number Theory
2. Logic, Proof, and Problem Solving
3. Euclidean Geometry and Trigonometry
4. Mathematics of Finance
5. Probability and Combinatorics
6. Games and Recreational Mathematics

NORMAL GRADING SCHEME:

Assignments (written and online)	10%
Term Project	10%
Term Tests (2)	15% each
Workshops	10%
Final Exam	40%

Note that *a student must score at least 40% on the final exam to pass the course*, regardless of the grade computed by the above calculation. Students who do not score 40% on the final examination will receive a final grade of at most 49%.

Students may earn a 1% bonus for each hour spent volunteering with a registered charity, school, or university which supports numeracy amongst children. A maximum of 5% can be earned and the activities must be pre-approved by the instructor. No bonus points are awarded during the final 3 weeks of the course.

ACADEMIC MISCONDUCT:

UBC takes cheating incidents very seriously. Please refer to the Academic Calendar for more information: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,54,0,0>

PROBLEM SOLVING: Mathematics is not easy, but it is doable; you learn by doing. *The expectation is that you spend at least eight hours per week outside the classroom on this course.*

Effort pays off! It is simply untrue that people have a fixed amount of math ability that determines how well they do. Just like any other skill, doing mathematics becomes easier with hard work, practice, and willingness to challenge yourself.

Don't give up! In earlier math courses, everything we needed to be able to do might have been conveniently written in boxed formulas that we can instantly apply. In more advanced mathematics courses, however, we don't always immediately know the correct way to proceed; sometimes trial and error is necessary, and there's nothing at all wrong with this. Trying, struggling, going back to another idea, making mistakes, fixing them—these are all part of the learning process.

Important Dates:

- Tuesday, Jan. 3 – First day of classes.
- Tuesday, Jan. 17 - Last day to withdraw with no record of enrolment on your transcript.
- Wednesday, Feb. 8 – MIDTERM TEST 1.
- Friday, Feb. 10 – Last day to withdraw without academic penalty.
- Monday, Feb. 13 – BC Day; no class.
- Feb. 20-24 – Mid-semester **study** break (no classes).
- Friday, Mar. 24 – MIDTERM TEST 2.
- Thursday, Apr. 6 – Last day of class.
- Tuesday, Apr. 10 – Wednesday, Apr. 28 – Final exam period.

TERM PROJECT: The purpose of your term project is to give you the freedom to explore mathematics in some context that appeals to you. The choice of context is wide open, but must be pre-approved. The end product for this project will be a class presentation to your peers.

CALCULATORS: Electronic devices of any kind are prohibited from our classroom at all times! Students may use an abacus, a set of Napier's Bones, or any other non-electronic computing device if they desire.

HOMEWORK: There will be weekly assignments, which consist of two parts. The online components are must be completed by each Friday at 10:00p and written components are due on each Monday by 10:00p and will be submitted through Crowdmark.

The written assignments are meant for you to practice writing mathematics in a coherent manner. You will be graded on the mathematical correctness, readability and aesthetics of your solutions. Some of the written problems will be significantly more challenging than the online components. It is not unusual to spend several days working on a single problem.

You are encouraged to work on homework assignments together and in the MLC. However, you must write your solutions independently. Students with identical solutions may be investigated for academic misconduct. Late assignments are not accepted for any reason.