Schedule: MWF 2:00–2:50 PM, Room: AEB 350

Instructor: Kyle Steffen, Office: JWB 105, Website: http://www.math.utah.edu/~steffen

Contact: (801) 581-7663, steffen@math.utah.edu

Office hours: M 11:00 AM – 12:00 PM, Th 2:00–3:00 PM, and by appointment.


Prerequisites: “C” or better in MATH 1010, meaning that students are expected to be proficient in algebra skills learned in 1010. Alternative prerequisites can be found in the course catalog. The math department strictly enforces prerequisites.

Course description: This course will fulfill the Quantitative Reasoning (Math QA) requirement for graduation. Math 1030 is an application-based course centered around the use of mathematics to model changes in the real world, and the effective communication of these mathematical ideas. The course is based on Chapters 1–4 and 8–10. You are expected to read each section that we cover.

At the end of the course, a student should be able to:
• Use Venn diagrams to examine relationships between sets, and examine the validity of simple deductive arguments;
• Use an appropriate sentence to describe both the absolute and percent change in a given quantity, and interpret such statements;
• Use simple and compound units, making conversions when necessary, and develop accurate comparisons between units;
• Evaluate the impact of compound interest on simple financial decisions;
• Use the savings plan and loan formulas to calculate the payment amount into a savings plan when a certain financial goal is desired, calculate the mortgage payment or interest paid over the life of the loan, and discuss whether those results are realistic (or not); compare several loans with different interest rates in order to make financial decisions;
• Compare and illustrate the features of linear and exponential growth using practical examples;
• Determine simple areas and volumes; explain the differential effect of scaling on perimeter, area, and volume; and explain some of the practical implications of scaling.

Calculator: You will need a calculator for this course. A scientific calculator will be sufficient.
Assessment: Homework – Homework problems are assigned for each section. Homework will not be collected, however I strongly recommend that you work on the problems and ask questions about them.

Quizzes – Approximately every two weeks there will be a quiz. The problems will be similar to the text, examples that we have done in class, and/or the homework. The lowest two quizzes scores will be dropped. No make-up quizzes will be given.

Group project – A group project will be due during the 14th (second-to-last) week of classes. You will work in groups of about three students. Detailed instructions and a list of topics will be discussed half-way through the semester. Late projects will not be given full credit.

Midterm exams – There will be two in-class exams (50 minutes). The tentative dates are Monday, October 6th and Monday, November 24th. Always consult Canvas to confirm these dates. None of the exams can be dropped.

Final exam – The two-hour final exam is comprehensive, and will be held at the University-specified time—Thursday, December 18th, 3:30–5:30 PM.

Absence from exams – Any conflict leading to your absence from an exam is your responsibility and must be arranged in writing (by e-mail) ahead of time or, in the case of extreme circumstances, within a week past the exam. Failure to do so may result in a zero for the corresponding exam.

Note – You must bring a valid ID to the the midterm exams and to the final exam.

Grading: Your grade will be calculated as follows: Quizzes (20%), group project (20%), midterm exams (15% per exam), and the final exam (30%). Your final letter grade will be determined by your overall percentage as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93% – 100%</td>
</tr>
<tr>
<td>A−</td>
<td>90% – 92.9%</td>
</tr>
<tr>
<td>B+</td>
<td>87% – 89.9%</td>
</tr>
<tr>
<td>B</td>
<td>83% – 86.9%</td>
</tr>
<tr>
<td>B−</td>
<td>80% – 82.9%</td>
</tr>
<tr>
<td>C+</td>
<td>77% – 79.9%</td>
</tr>
<tr>
<td>C</td>
<td>73% – 76.9%</td>
</tr>
<tr>
<td>C−</td>
<td>70% – 72.9%</td>
</tr>
<tr>
<td>D+</td>
<td>65% – 69.9%</td>
</tr>
<tr>
<td>D</td>
<td>60% – 64.9%</td>
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<tr>
<td>E</td>
<td>less than 55%</td>
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</tbody>
</table>

Honor Code: You are expected to abide by the University of Utah Honor Code and to avoid any instances of academic misconduct, including but not limited to: (1) possessing, using, or exchanging improperly acquired written or oral information during an exam; (2) substitution of material that is wholly or substantially identical to that created or published by another individual(s); and (3) false claims of performance or work.

Strategies for success:

- Attend class, and ask questions—being engaged helps you learn.
- Read the current section of the textbook before class. Read over your notes after class.
- Plan to do homework daily.
- Missing quizzes will affect your grade. Know when quizzes and exams will be held. Know how to compute your grade.
- Form study groups with other students. Working in groups helps students self-evaluate what they know and what they do not know.
• Cramming does not work. Study regularly and often throughout the semester. Focus on understanding the material rather than memorizing formulae.
• Read directions carefully. Read all the problems before you start working on any of them. Check your answers and make sure they are correct and well presented.
• Ask for help either during office hours, at the Tutoring Center, or from your classmates. Please do not be shy to ask questions during and after lectures, to come by during office hours, or to e-mail me with any concerns.
  – The Mathematics Tutoring Center, adjacent to the John Widtsoe Building (JWB) and LeRoy Cowles Building (LCB), offers free, drop-in tutoring for students in MATH 1030 (among other classes). The tutoring center will open Tuesday, September 2nd, and the hours are: 8:00 AM – 8:00 PM on Monday–Thursday and 8:00 AM – 6:00 PM on Friday. The tutoring center is closed during semester breaks, weekends, and University holidays.
  – For students who need more attention than our tutoring center can offer, the ASUU Tutoring Center, 330 SSB, offers inexpensive private tutoring ($7 an hour).
  – A list of private tutors is also available from the math department office or the desk in the tutoring center.

**ADA Statement:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

**Disclaimer:** All information on this syllabus is subject to change. Students will be notified of any changes on this syllabus, course policies or course outline if they arise throughout the semester.

*Have a great semester!*