

Spring 2019 Math 260 Sets and Logic
Samuelson 244, 9:00 - 9:50 M-F or Samuelson 245, 11:00 - 11:50 M-F

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Office Hours: M-F 10:00-10:50

and by appointment.

Course Goals: Math 260 is an introduction to the basic structures of mathematical proof. The goal of the class is introduce basic set notation, set theory (often referred to as “naive set theory”), logic, quantifiers and some methods of proof, as well as introducing the abstract definition of functions, relations and equivalence classes. In addition, there is another, less well-defined goal: to increase your “*mathematical maturity*” in preparation for later proof based classes.

Required Text: Harper, James D.; Logic, Sets and Proof: An Introduction CWU coursepack (available from the Wildcat Shop)

In principle, we will cover the whole book. We may skip a few sections, and we might not finish the whole book, but we will cover as much as possible in the time allotted.

An important element in familiarizing you with proofs is writing. You will do a lot of writing in this class. Unlike calculus, there will rarely be long calculations with lots of algebra. Rather, you will have to *describe* (in complete sentences) your thought process, and justify the steps you take. Getting the “right” answer is not the main goal: you must also explain correctly how you get that answer!

It is very important that you read the appropriate sections from the book before lecture. A good way to read a mathematics text is to have a separate notebook that you use when reading the book. When you’ve finished a paragraph in the book, try and write (in the separate notebook) a short (a few sentences) summary of what that paragraph says. In addition, put any questions about the reading in this notebook, and then ask about those questions during class.

1 Grades/Quizzes/Homework/Exams

Grades

Grades will be calculated using the following weighting system:

Homework: 5%;

Take Home Quizzes: 40%;

Exams: 55% total, broken up as follows: 15% for each mid-term and 25% for the final.

	87 – 89.9 : B+	77 – 79.9 : C+	67 – 69.9 : D+	below 60 : F
93 – 100 : A	83 – 86.9 : B	73 – 76.9 : C	63 – 66.9 : D	
90 – 92.9 : A–	80 – 82.9 : B–	70 – 72.9 : C–	60 – 62.9 : D–	

Quizzes

We will have a take-home quiz every week, except for those weeks when we have an exam.

Each quiz will be due at 1 pm two days after being handed out. (So, a quiz handed out on Tuesday will be due at 1 pm on the following Thursday.) I encourage you to work with other students, but you should write up your solutions in your own words.

Homework

Every few days, you will be assigned homework problems from the book. **Problems assigned on a Wednesday or later will be due on the Friday of the following week at 1 pm.** (For example, the problems assigned on March 27, 28, 29 or April 1 or 2 will all be due at 1 pm on Friday, April 5.) I will mostly grade on completion. This means

I'll be most interested in the work you've done - simply writing down an answer won't earn you points. It is a good idea to work with other students from class. We won't have time to do many homework problems in class, so please feel free to ask during office hours. However, don't put off asking about homework until the day before it's due!

Late Policy for Homework and Quizzes

Quizzes and homework will be due at 1 pm on their due date. Quizzes or homework handed in after 1 pm on their due date will lose 4 points immediately, and 4 more points for every 24 hours after. That means: if you hand in a quiz at 1:30 pm on the due date, you can earn at most 16 out of 20 on that quiz. If you hand in your quiz one day after the due date at 1:30 pm, you can earn at most 12 out of 20, since over 24 hours will have passed.

Exams

There will be three exams: two mid-terms and a final. The first mid-term will be on Wednesday, April 17; the second mid-term will be Wednesday, May 8; and the Final Exam for the 9:00 am section will be Thursday, June 6 from 8 am until 10 am and the Final Exam for the 11:00 section will be Friday, June 7 from 8 am until 10 am. The Final Exam will be cumulative, and **CANNOT** be taken early! **DO NOT** plan on taking your final early. If you miss an exam, you may be eligible for a make-up. To get a make-up, you must notify me before the exam (if possible) or within 24 hours after the exam. In addition, a make-up is only allowed if you have proof of a compelling reason for having missed the exam. Make-ups will not be given for circumstances you know about ahead of time! When a make-up exam cannot be taken before I return the corrected exam, I reserve the right to instead replace that portion of your course grade with your final exam grade. These considerations also apply to the final: **IF YOU MISS THE FINAL BECAUSE YOU OVERSLEPT OR HAVE THE WRONG DATE OR TIME, YOU DO NOT GET A MAKE-UP FINAL!**

Expectation for Written Work and Office Hours

Your homework and exams should be written up neatly and legibly, using complete sentences as appropriate. Failure to offer sufficient explanation will not earn full credit. I encourage you to come to my office hours to ask questions - but you must bring your notes from class!

2 Important Dates

April 1 - Last Day for Add/Drop

April 17 - first mid-term exam

May 8 - second mid-term exam

May 10 - uncontested withdrawal deadline

June 6, 8 am until 10 am - final exam for 9 am section

June 7, 8 am until 10 am - final exam for 11 am section

3 Legalese/Fine Print

Central Washington University is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning, discuss your concerns with the instructor. Students with disabilities should contact Disability Services to discuss a range of options to removing barriers, including accommodations. Disability Services is located in Hogue 126. Call (509) 963-2214 or email ds@cwu.edu for more information.