

CENTRAL WASHINGTON UNIVERSITY

Course Syllabus: Math 260 Fall 2012

Sets and Logic

10:00 A.M. - 10:50 A.M.

MTWRF - Bouillon 109

Professor: Dr. Jane Whitmire
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Phone: 509-963-2268
Office: Black Hall 225-32
Office Hours: T,W,R: 7:30-8:30 A.M. or F: 1:00-1:50 P.M.
Textbook: Logic, Sets, and Proof: An Introduction
Author: James D. Harper

Course Description

The primary purpose of this course is develop skill in writing mathematical proofs. A *proof* is a mathematical essay that demonstrates the validity of a mathematical statement in a clear and convincing way. While some proofs are computational, such as proving that, If $x^2 - x - 6 = 0$, then $x = -2$ or $x = 3$., the emphasis of this course will be an introduction to paragraph proofs. As it is with any essay, mathematical or otherwise, students will be expected to use a college level English grammar when they compose their proofs. Topics to reinforce this skill include: propositional logic, elementary set theory, mathematical induction, and other properties of integers.

Attendance (3%)

Attendance will be taken daily except on quiz, exam and review days. You will be allowed up to five absences without affecting your attendance score. More than 14 absences will result in a zero for your attendance score.

Homework (6%)

Homework will be assigned in two categories: Turn-In or Self -Study. Turn in homework will be collected once each week, usually on Thursdays. Your work will be read and commented on. Read the Rules for Homework hand-out for additional details.

Worksheet (6%)

There will be a short (10 minute) quiz followed by a group worksheet on either Monday or Tuesday. It is preferred that you work in groups of two or three. Although these worksheets are a small percentage of your grade, they are an important component in the learning process. Thus, please make reasonable attempts to attend these quiz/worksheet days. Since your lowest score will be dropped, there will be no make-ups.

Exams (60%)

There will be three in class exams. Dates will be announced.

Final Exam (25%)

The final is comprehensive, covers all material discussed in class, and is to be taken at the time scheduled by the University. The final is about 60% longer than a typical in-class exam. Completing the final in the time allotted is part of the final. The final exam for Fall 2012 is scheduled by CWU for Tuesday December 4, 2012 from 8:00 a.m. to 10:00 a.m. The final is not optional. Any student who fails to take the final automatically fails the course.

Grading Scale

Keep all exams, homework, quizzes, and other graded material for study and for verifying records on the course Blackboard website. Everyone is graded the same way. NO EXCEPTIONS. Letter grades A/A-/B+/B/B-/C+/C/C-/D+/D/D-/F are based on a strict 93-100/90-92.9/87-89.9/83-86.9/80-82.9/77-79.9/73-76.9/70-72.9/67-69.9/63-66.9/60-62.9/BELOW 60 cutoff.

Dates to Remember

<i>VeteransDay</i>	<i>Monday</i>	<i>November12</i>
<i>Thanksgiving</i>	<i>Wednesday</i>	<i>November21</i>
	<i>Thursday</i>	<i>November22</i>
	<i>Friday</i>	<i>November23</i>
	<i>Monday</i>	<i>November26</i>

Calculators

Calculators may be used on homework and exams. It is the student's responsibility to correctly operate the calculator and to demonstrate an understanding of the solution by providing appropriate detail. Calculators with CAS (Computer Algebra Systems) will not be allowed on exams. The TI-83 or TI-83 Plus is the official CWU authorized calculator.

Comments on Homework

Homework scores tend to be low the first few weeks of this course. The reason for this is twofold. The first reason is that students are learning a skill different from what is expected of them in previous math courses, that is, writing proofs. The second reason is more universal: It generally takes a few weeks to determine your professor's expectations and nuances. Also, I tend to be picky, sometimes on items that you might consider to be trivial. Do Not Panic! If you take good notes, read the comments that are provided for you on your homework, paper and then by midterm your scores should rise to a respectable level.

Ideally, homework should be done individually. However, the professor understands the value of collaborative work (this is what the worksheet days are for) or receiving help from someone other than yours truly. All I ask of you is that you document those from whom you received assistance. In these cases please write at the beginning of your homework paper:

I received help (assistance, hints) on problem(s) x , y , and z from Peter Crump, David Bartel, and Jennifer Anderston.

Homework Extra Credit

Occasionally, I will assign an extra credit problem. You are also invited to choose a non-routine problem from the textbook or, better still, come up with your own non-routine problem.

Special Needs Statement

As soon as possible, students with disabilities who wish to set up academic adjustments in this class should provide a copy of their "Confirmation of Eligibility for Academic Adjustments". Eligible students without this form should contact the Disability Support Services Office by visiting Bouillon 205, emailing dssreceipt@cwu.edu, or calling the phone number 509-963-2171.