MATH 260 — SPRING 2020 — SETS & LOGIC

GAVIN ARMSTRONG

CLASS MEETING:	• There is no official class meeting time • All course material will be available through Canvas • Lessons will be daily (5 days/week, unless otherwise stated)
OFFICE HOURS:	Monday, Tuesday, Wednesday, Thursday, Friday: 12:00 - 13:00. Or by appointment. Office hours will be hosted via Blackboard Ultra (accessible through the sidebar in the course Canvas page)
EMAIL:	Gavin.Armstrong@cwu.edu

LEARNING OUTCOMES:

This course will focus on the following topics:

- The core concepts of abstract reasoning, e.g. axioms, definitions, theorems, etc...
- Reading, writing, and understanding proofs.
- Common notations from Logic and Set Theory.
- Logical principles and proof techniques.
- Essential elements of mathematical objects.

MATERIALS:

There is **no** required *textbook* for this class. All necessary material will be available through the course Canvas page or one of its links.
Complementary discussion of the material can be found in the following books:

- *Mathematical Reasoning: Writing and Proof*, Ted Sundstrom. This is a free book and is available here:

  `https://scholarworks.gvsu.edu/books/9/`

- *Mathematical Thinking: Problem-solving and Proofs*, J D'Angelo, D West.

Neither book will be required and neither will be referenced from here on out.

Canvas:

My intention is that this entire course will be facilitated through Canvas. If additional resources are required, they will be linked on the course Canvas page. You should find access to the lessons, slides, homeworks, exams, and grades through the course Canvas page.

Grading:

Course grades will be weighted using the following rubric:

In-lesson Questions	15%	Homeworks	60%
Midterm Exam	10%	Final Exam	15%

Grade assignments will be made as follows:

F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A
< 60	60-62	63-66	67-69	70-72	73-76	77-79	80-82	83-86	87-89	90-92	93-100

In-lesson Questions:

There will be questions placed throughout the lessons in this course. You will be expected to complete these questions as you work through the course. These will mostly be graded on participation (not necessarily correctness) and are there to encourage engagement.

Homework:

Homework will be assigned at the end of each section of material, and will generally be due one week after they have been assigned. Once you submit your completed homework, I will grade it, and then return it with feedback. You will have the opportunity to make changes and resubmit your homework, to be graded again (without penalty). Your homework for this class is expected to be typed out. You should type your homework using some word processor that I also have access to, e.g. Microsoft Word (free for CWU students) or LaTeX (free for everyone and great for producing professional documentation).

Midterm:

There will be a midterm exam for this class opening on Friday May 8^{th}. I will provide more details, reminders, and practice questions as this date approaches.

Final Exam:

There will be a final exam for this class opening during the week of June 9^{th}-12^{th}. Again, I will provide more details, reminders, and practice questions as this date approaches.

How you are being graded:

All free-response questions for this class are expected to be written neatly and coherently. You are being graded on your process in finding the answers to mathematical questions, not on your final answers. In other words, points are awarded for work shown and not necessarily the number you get at the end. Your ability to effectively **communicate** is being assessed.
The easiest way to get 0 points on any given free-response question is to write a fully correct answer with no explanation of how you arrived at that conclusion.