

Math151 The Language of Mathematics Fall 2004

Instructor: Jon Hasenbank (pronounced “Hāz · in · bank”)
Course Web Page: <http://www.math.montana.edu/~hasenban/m151fa04/index.html>
Office: NE corner of Room 2-232, Wilson Hall
Phone: 994-5360 (before 5:00pm)
Email: jfhasenbank@montana.edu (if I’m not in my office)
Text: *The Language of Mathematics, 2004 Edition* - Warren W. Esty

Office Hours:	Monday	Tuesday	Wednesday	Thursday	Friday
	11 - 12pm	by appt.	1 - 2pm	1 - 2pm	11 - 12pm

Students are expected to:

- Attend class regularly, arrive on time, and stay for the duration of the lecture whenever possible.
- Be respectful, attentive, and interactive during class: Take good notes, ask and respond to questions, and avoid being a distraction to others.
- Complete the assigned homework.
- Organize notes, hand-outs, and completed homework in a three-ring binder (or equivalent). Bring it to class / office hours with you.
- Read each section before class.
- Review each lecture for at least 8 minutes immediately after each class. Do it on your way home or between classes!
- Seek help before it’s too late!

Quizzes and Homework: You cannot learn Mathematics (or any language) without practice. Therefore, I will collect your homework regularly in this course. We will also have quizzes. As the course progresses and your skills improve, the frequency of quizzes will increase. In most cases, quiz questions will be similar to, if not identical to, recent homework assignments.

I do not give quiz retakes, accept late homework assignments, or give quizzes early, so please don’t ask. If you need to be absent for a quiz, you will receive a zero for that quiz. However, I will drop 1/6th of your quizzes before calculating your final score, so you can afford a few mistakes.

Course Grading Policy: This course is all about learning the language of Mathematics, and learning a language takes time. It would be unfair to ask you to be fluent after just a few weeks. Therefore, your grade in this course depends more heavily on the assignments near the end of the course than on those at the beginning of the course. (See the grade breakdown below.)

Keep Track of Your Progress! If you don’t get something right away, make a note of it in your “One-minute Paper” journal. Look back through your entries from time to time to remind yourself of the things you don’t understand. This course is structured so that nothing ever “goes away.” In time, your ability to read and write the language of Mathematics will improve to the point where you are able to earn some good scores on the assignments late in the semester. Work hard, be honest with yourself and with your instructor, be flexible and open-minded, and you will be amazed at what this course has to offer you!

GRADING:

Exam (Ch. 1):	50 points
Exam (Ch. 2):	50 points
Exam (Ch. 3):	100 points
Exam (Ch. 4):	100 points
Final Exam (Ch. 1 - 5):	150 points
Quizzes:	75 points
Homework:	75 points
Total:	600 points

Math151 The Language of Mathematics Fall 2004

MONDAY	WEDNESDAY	FRIDAY
Aug. 1.0 - Learning the Language 1.1 - Reading Mathematics 30	Sept. 1.1 - Reading Mathematics 1.2 - Language, Arithmetic, & Algebra 1	3 1.3 - Order Matters!
6 No School! (Labor Day)	8 1.4 - Algebra & Arithmetic	10 1.4 - Algebra & Arithmetic 1.5 - Numbers
13 1.5 - Numbers	15 <i>Review</i>	17 Exam 1 (50 points)
20 2.1 - Sets, Functions, and Algebra <small>(Last Day to Drop w/out a Grade)</small>	22 2.1 - Sets, Functions, and Algebra	24 2.2 - Functions
27 2.2 - Functions	29 2.3 - Solving Equations	Oct. 1 2.3 - Solving Equations
4 2.4 - Word Problems	6 2.4 - Word Problems	8 3.1 - Logic for Mathematics
11 <i>Review</i>	13 Exam 2 (50 points)	15 3.1 - Logic for Mathematics
18 3.2 - Important Logical Equivalences	20 3.2 - Important Logical Equivalences	22 3.3 - More Logical Equivalences
25 3.4 - Tautologies and Proofs	27 3.4 - Tautologies and Proofs	29 <i>Review</i>
Nov. Exam 3 (100 points) 1	3 4.1 - Sentences w/ One Variable	5 4.1 - Sentences w/ One Variable 4.2 - Generalizations and Variables
8 4.2 - Generalizations and Variables	10 4.3 - Existence Statements and Negation	12 4.4 - Ways to State Generaliz'ns 4.5 - Reading Theorems and Def's
15 4.5 - Reading Theorems and Def's 4.6 - Equivalence and Form	17 4.7 - Different Appearance, Same Meaning	19 5.0 - Why Proofs? <small>(Last Day to Drop with a "W")</small>
22 <i>Review</i>	24 Exam 4 (100 points)	26 No School! <small>(Thanksgiving Recess)</small>
29 5.1 - Proof	Dec. 1 5.1 - Proof	3 5.2 - The Logic of Proofs
6 5.2 - The Logic of Proofs	8 <i>Open</i>	10 <i>Review</i>

FINAL EXAM is Tuesday, Dec. 14, from 4:00 - 5:50pm.

- The information on this syllabus is subject to change at the discretion of the instructor -