

Math151 The Language of Mathematics Spring 2005

Instructor: Jon Hasenbank (pronounced “Hāz · in · bank”)
Course Web Page: <http://www.math.montana.edu/~hasenban/m151sp05/index.html>
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Text: *The Language of Mathematics, 2004 Edition* - Warren W. Esty

Office Hours:	Monday	Tuesday	Wednesday	Thursday	Friday
	1:10-2pm	by appt.	1:10 - 2pm 3:10 - 4pm	by appt.	1:10 - 2pm

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!

Homework Policy: I will collect your homework every day and grade it based on (a) its overall completeness (70%) and (b) the correctness of three randomly selected problems (30%). That is, if you have completed all problems in a neat and organized fashion, you will receive at least 7/10 on the homework assignment. I will also grade three problems, selected at random, which will comprise the remaining 3/10 points. If you turn in a homework assignment late, I will look it over for completeness and score it (at most) 7/10.

Quiz Policy: We will also have a quiz almost every Friday. Except for extreme cases (and for university related absences), I do not give make-up quizzes, 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 your lowest two quizzes before calculating your final score.

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 understand something, 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 me, 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

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MONDAY	WEDNESDAY	FRIDAY
Jan. 10	12 1.0 - Learning the Language 1.1 - Reading Mathematics	14 1.1 - Reading Mathematics 1.2 - Language, Arithmetic, & Algebra
No School! (M.L.K. Jr. Day) 17	19 1.3 - Order Matters!	21 1.4 - Algebra & Arithmetic
24 1.4 - Algebra & Arithmetic 1.5 - Numbers	26 1.5 - Numbers	28 <i>Review</i>
Chapter 1 Exam (50 points) 31	Feb. 2 2.1 - Sets, Functions, and Algebra (Last day to drop with no grade)	4 2.1 - Sets, Functions, and Algebra
7 2.2 - Functions	9 2.2 - Functions	Oct. 11 2.3 - Solving Equations
14 2.3 - Solving Equations	16 2.4 - Word Problems	18 2.4 - Word Problems
No School! (President's Day) 21	23 <i>Review</i>	25 Chapter 2 Exam (50 points)
28 3.1 - Logic for Mathematics Equivalences	Mar. 2 3.2 - Important Logical Equivalences	4 3.2 - Important Logical Equivalences
7 3.3 - More Logical Equivalences	9 3.4 - Tautologies and Proofs	11 3.4 - Tautologies and Proofs
Spring Break (3/14 - 3/18)		
21 4.1 - Sentences w/ One Variable	23 <i>Review</i>	25 No School! (University Day)
Chapter 3 Exam (100 points) 28	30 4.2 - Generalizations and Variables	Apr. 1 4.2 - Generalizations and Variables
4 4.3 - Existence Statements and Negation	6 4.4 - Ways to State Generaliz'ns	8 4.5 - Reading Theorems and Def's
11 4.6 - Equivalence and Form	13 4.7 - Different Appearance, Same Meaning	15 <i>Review</i>
Chapter 4 Exam (100 points) 18	20 5.0 - Why Proofs? 5.1 - Proof	22 5.1 - Proof Last day to drop with a 'W'
25 5.2 - The Logic of Proofs	27 Open	29 <i>Review</i>

FINAL EXAM is Tuesday, May 3rd, from 8:00 - 9:50am in our usual classroom.

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