

WELCOME TO
ALGEBRA I at Miss Hall's School
 2004–2005 Academic Year

INSTRUCTOR Dr. Carol J. V. Fisher
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 CLASS MEETING TIME A block MTWF
 CLASS MEETING PLACE Room 200, Main Building
 INSTRUCTOR'S SCHEDULE see below
 WEB SITE <http://fishcaro.crosswinds.net>

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<i>1st period</i> 8:00–8:50	E AP Calculus	A Algebra I	G	D	B
<i>2nd period</i> 8:55–9:45	C HTML	D	A Algebra I	9:00–12:30 HORIZONS	A Algebra I
<i>3rd period</i> 9:50–10:20	School MTG	(HTML Lab)	AP Calc Lab		School MTG
<i>4th period</i> 10:25–11:15	B	C HTML	E AP Calculus		E AP Calculus
<i>5th period</i> 11:20–12:10	F Precalc H	G	F Precalc H	1:00–1:25 Adv Mtgs/ Class Mtgs	G
<i>15 minute passing</i>	lunch	lunch	lunch	lunch	lunch
<i>6th period</i> 12:25–1:15	G Office Hour (after lunch)	F Precalc H	C Office Hour (after lunch)	B 1:30–2:20	F Precalc H
<i>7th period</i> 1:20–2:10	D	E AP Calc	D	C 2:25–3:15 HTML	C HTML
<i>8th period</i> 2:15–3:05	A Algebra I	B	B	A 3:20–4:10	D
<i>9th period</i> 3:10–3:40					

COURSE DESCRIPTION and PREREQUISITES

Algebra involves the representation and manipulation of mathematical information using variables. One theme of Algebra I is the development of tools needed to work with a wide variety of mathematical expressions. To this end, we explore functions, sets, number line concepts, order of operations, percents, ratios, radicals, properties of exponents, scientific notation, polynomial and rational expressions, and factoring. A second theme is the introduction of basic tools for solving equations and inequalities. Central to this task is the study of the addition and multiplication properties of equality. Finally, girls must develop the wisdom to differentiate between renaming expressions and solving equations. A thorough study of lines helps to illustrate the interconnections among the themes. Algebra I is a prerequisite for further study in mathematics.

TEXT and SUPPLIES

TEXT:

One Mathematical Cat, Please! A First Course in Algebra, by Carol J.V. Fisher. This book is in progress. The first part of the book is available now in spiral-bound form at the MHS bookstore. Later in the year, you will be receiving additional section materials.

TI-83 GRAPHING
CALCULATOR

You will need a TI-83 graphing calculator, which will be used in all your math classes at Miss Hall's School. (Note: Much of the early work in this course does *not* allow the use of your calculator!)

3-RING BINDER
and DIVIDER SHEETS

A 3-ring binder (at least 1.5" ring size) is strongly recommended to organize all class materials. Please make tabs for:

GRADE SHEET

SYLLABUS

INDEX CARDS

OTHER

INDEX CARDS

Index cards (4" × 6", both sides un-ruled) are used to summarize important material. You may want to purchase a 3-hole punched plastic zippered pouch in which to keep your index cards.

SUPPLY LIST

- textbook: **One Mathematical Cat, Please! A First Course in Algebra**
- TI-83 graphing calculator
- 3-ring binder (recommend at least 1.5" ring size)
- index divider sheets
- 4" × 6" index cards, both sides un-ruled, at least 100
- 3-hole punched plastic zippered pouch (optional)

WEB EXERCISES

There are many problems on the web to give you unlimited practice with basic skills. To access these problems, use Internet Explorer as your browser, and follow these instructions:

- go to <http://fishcaro.crosswinds.net>
- click on **Table of Contents**
- click on **Algebra I at Miss Hall's School**

Read the instructions for each problem type carefully. Often you must input your answers in a specified way. You can time yourself, get a summary sheet that shows the average number of seconds per correct problem, and print out randomly-generated worksheets and solutions.

Problems marked with a ♡ require Internet Explorer 6.0+ with MathPlayer installed.

TYPICAL CLASS STRUCTURE and THE “INDEX CARD” LECTURE METHOD

Each day you will assigned reading in your textbook, *before* the material is covered in class. One of the major goals of this course is to develop your skills in reading mathematics, so it is critical that you get lots of practice! But don't despair—the book is carefully written to gradually develop these skills.

As you read, you will write out solutions to ALL the exercises in the text, and check your work with the answers provided in the text. Use the format illustrated below. This homework will be passed in each day—you will drop it in the “Algebra I” folder as you come into class. Each day's homework is worth 4 points: 1 point for passing it in, 1 point for using the correct format, and 2 points for completeness/correctness. You can write the numbers of troublesome problems on the board, so we can go over these problems in class. Homework is always returned to your personal folder, so check this folder as you come into class.

During class, all the important ideas from the section you just read are summarized on index cards, which become a primary study source for exams and quizzes. Here's how the “index card method” works:

- You will receive copies of the index card material; the sheets are pre-punched to put in your 3-ring notebook.
- The index cards give an “in a nutshell” version of the material in your text. We will go over these index cards in class.

- After class, copy the material onto an *actual* index card. As you write the card, THINK! Make sure that you understand *everything* you're writing down. Feel free to add additional material to make the index cards more useful to you.
- Index cards are collected and graded at the midterm and endterm exams. Each card is worth 2 points (1 point for each side).

During class, we will also go over all the web exercises.

QUICK QUIZZES

At the beginning of each class, there is a 'Quick Quiz' over material from the previous day. This Quick Quiz will be a basic question from the previous day's index card(s). The Quick Quizzes are graded with a '1' (one point) or an 'N' (Not completely correct). Points accumulated on the Quick Quizzes are added into your point total as **BONUS POINTS**. Consequently, they can't hurt your grade, but can certainly help! There are no make-ups on Quick Quizzes. Quick Quizzes are discarded immediately after grading.

An unexcused late or unexcused absence causes you to lose a Quick Quiz point. (I record "-1" on the Quick Quiz sheet.)

QUIZZES and EXAMS

Almost every week there will be a 40-point quiz over the material covered since the previous quiz/test. These quizzes comprise a significant part of your course grade. Take them *very* seriously! These quizzes will cover exercises from your text, index card material, and web quizzes.

There will be a midterm and an endterm exam, each worth 80 points.

The final exam is comprehensive, and is worth 120 points.

LATE POLICY

Recall that there are no make-up Quick Quizzes. The Miss Hall's School late policy applies to any other missed work: "A student who has been absent must be prepared to submit all missed classwork within 48 hours of her return. A student should be prepared to take a quiz or test upon her return if the material was covered prior to her absence. A 10% per day grade reduction will be applied to any outstanding work after the 48 hour grace period."

EFFORT HONOR ROLL

A student is voted to the Effort Honor Roll when she has worked consistently throughout the term to be the best student she can be in all of her classes. Any one of the following reasons is sufficient to prevent a girl from receiving a recommendation for Effort Honor Roll: an unexcused absence; non-participation in class; lack of preparation for class; tardiness to class.

YOUR NUMBER IS ...

Your Miss Hall's locker number is your number for the year. This number should be written on all tests and quizzes. Also, your personal folder is identified with this number. If you miss class, check your folder for papers that may have been distributed while you were absent.

GRADING

You will accumulate points throughout each term. Here's an example: if there are 1020 possible points, and you accumulate 785 points, then your numerical term grade will be determined by computing $\frac{785}{1020}$ and using normal rounding, yielding 77%. Each student is provided with a grade sheet which is used to keep track of your grade throughout the term. Here are approximate points for the Fall term:

graded item	approximate # of points
INDEX CARDS	50 cards $\cdot \frac{2 \text{ pts}}{\text{card}} = 100 \text{ pts}$
WEEKLY QUIZZES	10 quizzes $\cdot \frac{40 \text{ pts}}{\text{quiz}} = 400 \text{ pts}$
HOMEWORK	60 days $\cdot \frac{4 \text{ pts}}{\text{day}} = 240 \text{ pts}$
MIDTERM EXAM	80 pts
ENDTERM EXAM	80 pts
FINAL EXAM	120 pts
QUICK QUIZZES	BONUS POINTS

Each term, the final exam grade may be used to replace a poor exam grade.

TERM GRADE:

	$A : [93, \infty)$	$A^- : [90, 93)$
$B^+ : [87, 90)$	$B : [83, 87)$	$B^- : [80, 83)$
$C^+ : [77, 80)$	$C : [73, 77)$	$C^- : [70, 73)$
$D^+ : [67, 70)$	$D : [63, 67)$	$D^- : [60, 63)$
$F : < 60$		

QUIZ/EXAM DATES and FINAL EXAM DATES:

All quiz and exam dates are listed on your Grade Sheet.

COURSE GRADE: Your course grade will be the average of the Fall and Spring term grades.