Introduction to Math 112

What does not kill me, makes me stronger.

Friedrich Nietzsche (1844 - 1900)
in The Twilight of the Idols (1899)

PEP TALK

The aim of a liberal education is education, not training. We want you to learn how to listen to a lecture, ask questions, read a book, and express yourself clearly so that throughout your life you can learn new skills as you need them. In Math 112 you will learn to use mathematical formulas, interpret graphs, and relate formulas to graphs. These are skills are important for any kind of intellectual activity. Math 112 won’t kill you; mastering it will make you stronger.

We will try to teach you to think mathematically. This means not just memorizing the formulas and theorems but understanding what they say and mean. When working a problem we want you to focus on what is true not what to do to get the answer. When you submit written material we want to see “complete sentences” not nouns without verbs. In a mathematical formula a complete sentence will usually have an equality (or inequality) sign. Writing complete sentences is a prerequisite to clear thinking: if you arrange you work as a sequence of complete sentences you can check its correctness by seeing how each step follows from the earlier steps. It also makes it possible for us to grade your work accurately and award partial credit as appropriate.

TEXT

Cohen, College Algebra, 5th ed. West Publishing

HOMEPAGE

Up to date information about Math 112 is available at:

http://www.math.wisc.edu/~algcoord/

You can also download duplicates of the handouts (including this one) there.

SYLLABUS

You received a syllabus on the first day of class. It’s your road map for the semester, showing the path we’ll take through the book during the semester. We’ll read sections of the text and work problems found there. We’ll have quizzes and exams. You may be surprised at the depth to which we expect you to know the material and the extent to which we expect you to know principles rather than just how to do problems. We suggest that you choose to experience this surprise before the first exam.

Your instructor will hit the high spots of the course in class but will NOT go over everything you need to know for exams. This course assumes that you’ll learn
much of the material by reading the text and doing problems on your own. The ability to learn from a book is a skill which we intend for you to develop.

PREREQUISITES

You have all passed a placement test which shows you have the requisite skills. You are expected to understand the basic rules of algebra as explained in Appendix B of the text. You should read this on your own and work the problems. If you do not remember some of this material, try to ask your instructor about it during the first several weeks.

The Math Tutorial Program presents a series of workshops entitled What are you expected to know in your math class? The relevant workshops for Math 112 are

Wednesday Jan. 21: Formulas, Fractions, and Factoring
Thursday Jan. 22: Rational Exponents and Inequalities

Both are at 4:30-5:30 p.m. in Room 5106 Social Sciences.

HOMEWORK

Homework assignments will appear on the WeBWorK server

It is guaranteed that 80% of the exam problems are slight modifications of the ones that appear there, and that a grade of 80% on any exam is at least a B. However, remember that on an exam we expect more than just the correct answer: we want you to show your reasoning clearly.

You can do these problems online using a web based homework delivery system called WeBWorK. Visit the website above to use WeBWorK. You need a WeBWorK Username and a WeBWorK Password. The WeBWorK Username should be the same as your netid\(^1\) (the same one you use to sign on to MyUW) but use your 10 digit university id number as the WeBWorK password. (You can change your password later.) If this fails, you can temporarily sign on with the user id stu and the password dent, but be sure to have your instructor fix the problem so that you will get credit for doing the homework. Your instructor may have you hand in written problems in lieu of using WeBWorK and will tell you how many problems s/he wants you to do on WeBWorK.

The first WeBWorK homework set is entitled Orientation. This is a tutorial which will show you how to use WeBWorK. The next WeBWorK homework set(s) will test your knowledge of elementary algebra. Then there will be WeBWorK homework set corresponding to classwork. Some WeBWorK homework sets will be marked “Additional” indicating that the repeat the ideas in another WeBWorK homework set.

\(^1\)Actually, we used a university database to associate an email address to each student and assigned as WeBWorK Username the part preceding the @ sign. If your email address is userxx@wisc.edu, your netid is userxx and this will be your WeBWorK Username as well.
Grading

There will be three evening exams each worth 15% of your grade. The final exam is worth 30% of your grade. The remaining 25% is assigned by your instructor who may base it on homework, quizzes, and class participation.

Exams

These are scheduled for:

MIDTERM 1, TUESDAY, FEBRUARY 17, 2008, 5:30-7:00 P.M.

MIDTERM 2, TUESDAY, MARCH 24, 2008, 5:30-7:00 P.M.

MIDTERM 3, TUESDAY, APRIL 14, 2008, 5:30-7:00 P.M.

FINAL EXAM, SUNDAY, MAY 10, 2008, 10:05 A.M.

Exam dates are firm! There will be a conflict exam for the three midterm exams for those students with a valid conflict such as being registered for a class or having another exam at the same time. Students with such conflicts must register with their instructor and email the course coordinator schroede@math.wisc.edu by January 30, 2009. This is your responsibility and late requests are generally denied.

Under no circumstances will the Final Exam be given on an earlier date.

Exam Rooms will be announced by your instructor before each exam. They will also be posted on the 112 bulletin board (in the stairwell outside the second floor of Van Vleck) and on the 112 homepage: http://www.math.wisc.edu/~algcoord. It is your responsibility to take the exam in the assigned room.

Use of calculators, personal digital assistants or cell phones, etc. will not be allowed during the exams.

Review

Spend some time every week reviewing what has been covered in the course so far. Don’t put this off until studying for exams. At the end of each chapter are a “Summary of Principal Terms”, Review Exercises and a Chapter Test. Much of the point of reviewing is to practice recognizing how the problems apply the concepts being reviewed. The best way to prepare for exams is to review the concepts, examples and problems you have been working on.

Test your answers

If you solve a word problem ask if your answer is reasonable. If you solve an equation plug your answer(s) back in and see if they satisfy the equation. If you use WeBWorK, do not simply guess answers till WeBWorK tells you your answer is right: test your answer first.
GETTING HELP

There is not enough class time for your instructor to answer all questions or work all homework problems. The first place to get help outside class is during your instructor’s office hours. Quite often they are sitting around during these times hoping that someone will come by. Do them a favor and stop in and ask a question. You’ll be glad you did. Other resources include:

- MATH LAB- Free drop-in help from math TAs is available in B-227 Van Vleck, Monday through Thursday 3:30–8:10 pm.

- MATH TUTORIAL PROGRAM- This is to help people through the course who are in danger of receiving a D or F. At the start of the semester those who have been away from math for several years or who are repeating 112 can check with David Camacho in 321 Van Vleck. Later you will need a reference from your instructor.

- GUTS- Greater University Tutoring Service is a volunteer peer tutoring service located in the Student Activity Center at 333 E. Campus Mall. Visit #4413 or call 263-5666 for information.

- MATH BOARD- This bulletin board across from B-207 Van Vleck provides information that will help you form a study group with other students in Math 112.

ATTENDENCE

It is up to your instructor whether or not attendance is taken. In any case, you are always responsible for everything that is mentioned in class whether you are there or not.

COMMENTS OR CONCERNS

If you wish to make a comment on the teaching or content of this course, whether to express a concern or complaint or to transmit a compliment, contact one of the course coordinators:

Michael Schroeder, 822 Van Vleck, 262-0537, schroede@math.wisc.edu
Professor Joel Robbin, 313 Van Vleck Hall, 263-4698, robbin@math.wisc.edu