

Math 98 - Introductory and Intermediate Algebra

Spring 2010

Professor: Carrie Naughton
Office: Library L247
Office Hours: MW 5:00-5:50 pm, Thursday 3:00 – 5:00 pm, online Tuesday 9:00-10:00 pm (may vary) or by appt.
Phone: 651-554-3785
Email: cnaught@inverhills.mnscu.edu
Website: <http://faculty.inverhills.edu/cnaught/> (similar material and gradebook available on D2L)

Prerequisite: Recommendation based on the results of the Inver Hills Assessment Inventory or a grade of a C or better in Math 0092. This course is designed for college students who want a self-paced course to learn or review introductory and intermediate algebra topics in preparation for college algebra or precalculus. Students planning to take Math for Liberal Arts, Statistics or Math for Decision Making as their last math course would be better served by taking Math 96. This course does not satisfy any graduation distribution requirements.

Learning Outcomes:

For Math 94, the student should be able to:

- 1) Translate words into algebraic expressions, equations, and inequalities.
- 2) Identify and use the properties of real numbers and classify numbers into appropriate subsets.
- 3) Simplify expressions: numerical, polynomial, rational, and radical.
- 4) Solve: linear, literal, quadratic, and radical equations and linear inequalities.
- 5) Solve applications using the equations and inequalities from Objective 4.
- 6) Use laws of exponents to simplify expressions with integer exponents.
- 7) Identify and use connections between linear equations, their slope, their intercepts, and their graphs.
- 8) Graph nonlinear equations by point plotting.

For Math 99, the student should be able to:

- 1) Solve certain types of linear and nonlinear equations and inequalities, and modeling applications based on these types of equations and inequalities.
- 2) Demonstrate appropriate manipulation of polynomials.
- 3) Demonstrate appropriate symbolic manipulation of rational expressions, solving certain types of rational equations, and modeling applications based on rational equations.
- 4) Manipulate expressions involving rational exponents and radicals.
- 5) Graph linear equations and model applications based on linear equations and their graphs.
- 6) Solve systems of linear equations using matrices, and modeling applications based on linear systems.
- 7) Graph quadratic functions, and model applications based on quadratic functions.
- 8) Demonstrate proper symbolic manipulation of exponential and logarithmic expressions, solving of exponential and logarithmic equations, and modeling exponential and logarithmic applications.

Text:

You must have a MyMathLab access code. This can be purchased shrink-wrapped with the textbook: Algebra, A Combined Approach, 3rd Edition by Elayn Martin-Gay, published by Pearson/Addison Wesley **or** you can just buy the MyMathLab access code at <http://www.coursecompass.com> and use the Multimedia Textbook that is available on MyMathLab. A hard copy of the textbook purchased at the bookstore with MyMathLab will cost more, but it is portable and can be taken anywhere and used in the future. The Multimedia textbook available through MyMathLab is much cheaper but can only be accessed with an internet connection and you will not have access to it after this course is over. You will also need a **coursepack** with my name on the cover. You will also need to access course materials from D2L.

Calculators: A scientific calculator is highly recommended. I recommend a TI 30XII, if you don't already own one. A graphing calculator is fine if you already have one, but is not necessary for the course.

Math Center: Help is available in the Math Learning Center. The hours are M-Th: 9-6, and F: 9-1.

Important Dates:

January 11, Classes begin
January 18, Holiday
February 15, Holiday
February 23, Student Success Day
February 26, No class

March 8-12, Spring Break
April 8, No class
April 21, Last Day to Withdraw
May 7, No class
May 12, Final Exam 6 – 9 pm

Grading Criteria for Math 94:

Groupwork: 5 activities worth 5 points each
Homework: work for each test and practice exam worth about 20 points
Chapter Tests: 6 tests each worth 20 points (you must score 85% mastery - retakes allowed)
Midterm Exam: worth 100 points (you must score 75% mastery - retakes allowed)
Final Exam: worth 200 points (retakes NOT allowed)

Grading Criteria for Math 99:

Groupwork: 5 activities worth 5 points each
Homework: work for each test and practice exam worth about 20 points
Chapter Tests: 5 tests each worth 20 points (you must score 85% mastery - retakes allowed)
Midterm Exam: worth 100 points (you must score 75% mastery - retakes allowed)
Final Exam: worth 200 points (retakes NOT allowed)

Grade Scale:

A = 90-100%
B = 80-87%
C = 70-79%
D = 60-69%
NC = Below 60
P = Minimum of 70

Please note that you must earn a minimum grade of "C" (70%) in order to qualify for the next math course.

You MUST earn at least 70% in the Math 94 portion of the course in order to move on to Math 99. You MUST earn at least 70% in the Math 99 portion of the course to pass Math 98. If so, your final Math 98 grade will be based on total points earned from both Math 94 and 99. If you only pass the Math 94 portion, then you will get a grade for Math 94 on your transcript. If you pass both Math 94 and 99, then you will get a grade for Math 98 on your transcript that will count as a prerequisite for higher level courses.

Homework:

Daily homework will not be graded or collected in this course. It is meant to provide you with review and practice of material relevant to each Chapter test. You may do as much or as little HW as needed to pass the Chapter tests with 85% mastery. Homework and practice problems are available from the textbook and also from My Math Lab. **However, you must turn in your work, written neatly on a piece of paper, for each Chapter Test that you pass with 85%. There are also practice midterms and final exam review sheets that must be completed and turned in for points before you will be allowed to take the midterm and final exam.** Work for each Chapter Test will be worth a maximum of 2 points. Review sheets for the midterms and finals will be worth 5 points each.

Groupwork:

A groupwork activity will be given at least once a week. You are expected to work with your classmates to answer questions based on the material covered in class that day. Each activity will be worth 5 points. You will be given 15 groupwork activities (1 per week), however only 5 will be recorded towards your Math 94 grade and 5 towards your Math 99 grade, so you can drop your 5 lowest scores. If you miss an activity, then that will be one of the activities that you drop. No late assignments will be accepted. Please note that on all activities and paper-pencil Midterms and Finals, I will be evaluating your **solutions**, not just your **answers**. A correct answer with no supporting work will earn little credit, but an incorrect answer with good reasoning and a small error will earn more credit. I expect that you will be showing work as completely as you can.

Exams:

There will be 6 Chapter Tests given online in My Math Lab for the Math 94 portion and 5 Chapter Tests given online for the Math 99 portion of the course. You must pass each test with 85% success or higher. If not, you may retake the tests. I strongly recommend that you get help on the material before retaking the test. You can get help by doing more HW on My Math Lab, using additional My Math Lab and textbook support (like video lectures, chapter reviews, etc.), getting help in class, going to the math center, or getting a peer tutor. There will also be a paper-pencil Midterm Exam and Final Exam for both Math 94 and Math 99. You must pass the Midterm Exam with a 75% success rate. If not, then three retakes will be available until success is achieved. However, there will only be one chance to achieve 70% success or higher on the Final Exam. **Each Chapter Test is due by Sunday at 10 pm. Please refer to your calendar for the due dates of each Chapter Test, Midterm and Final Exam. You will not be allowed to take your Midterms or Final Exams unless each of the prerequisite Chapter Tests have been passed with 85% or higher.**

Attendance:

Even though no official attendance is taken, regular attendance is recommended. A schedule of recommended deadlines will be provided on My Math Lab. This is meant to give you guidelines on when tests should be completed so that both Math 94 and Math 99 can be completed in one semester. Going slower than the suggested calendar will jeopardize your ability to complete both courses in one term. If you fail to complete all of Math 99 this semester, then you will only get credit for Math 94, assuming you pass Math 94.

Technology:

- You will need daily access to a **high-speed internet connection** (DSL, cable modem, or equivalent).
- You will need to **download all plug-ins for MyMathLab**. Once you purchase the MyMathLab access code and register on MyMathLab, you can go through the Installation Wizard to download all necessary plug-ins. These are required to watch video lectures, work through guided practice problems and take Chapter Tests.
- You may want **access to a printer** in order to print off copies of the activities and blank notes pages for the Video Lectures.
- You may need to **upgrade to the latest version of Windows Media Player** in order to view my Video Lectures. You can download it by visiting www.microsoft.com/windows/windowsmedia/player/11/default.aspx
- You need to **have a back-up plan** in case your main computer access is not available. Make sure that you know of a library, coffee house, friend, computer lab, or some other source where you can get on-line to access course materials and take tests. **Internet disruptions or computer malfunctions are NOT acceptable excuses for missing deadlines.**

If you need technical assistance, please visit the Inver Hills computer lab (1st floor of the Library) for help.

Video Lectures:

Online video lectures created by your instructor are available on D2L (under Content) and also on the instructor's webpage. These are meant to provide you with additional resources for learning the content of the course. You can print off blank notes pages first, then watch the videos and take notes as you listen. These videos should be one of the major resources you use to learn the material. The video lectures provide some examples and content that is not necessarily covered in the textbook, yet is required for the course and exams. MyMathLab tends to give problems that are slightly easier in difficulty than what is expected in the course, so please refer to the video lectures and HW activities to get a good idea of what to expect on the midterm and final exam. To watch the videos on D2L, you will need to click on the video under Content, and then click on the small "undock" icon (look for the second icon to the left showing two screens with an arrow between them in the small toolbar above the video screen). The video will then open in a new window after downloading. The Video Lectures do not work well on a Mac. If you have a newer Mac, you will need to download Windows first to view the videos. Otherwise, you will have to use a PC for watching videos.

Other Policies:

As a courtesy to all, please be sure that your cell phone and pager are turned off during class.

Be on time. It is very disruptive to those around you if you come in late.

Be courteous.

Be in class to be successful.

You are responsible for what happens in class whether you are in attendance or not.

Do not cheat. Any cheating will result in a zero on that test, quiz, homework or classwork. Other actions may be taken at the discretion of the instructor.

Access/Accommodations:

I would like to make sure that all the materials, discussions and activities that are part of the course are accessible to you. If you would like to request accommodations or other services, please contact me as soon as possible. It is also possible to contact the Disability Services Office, L-224; phone, 651/450-8628; TTY, 651/450-8369.

Satisfactory Academic Progress:

Students need to maintain both a cumulative GPA of 2.0 and cumulative completion rate of at least 67% of all attempted credits for each term of attendance. If a student fails to meet these requirements, they will be placed on academic and/or financial aid probation.

Suggestions for successfully completing this course:

1. Follow the Weekly Schedule; don't take weeks off from the course.
2. Start working on HW and groupwork activities as soon as possible. I have no problem with students working together to complete activities; in fact, I strongly encourage it!
3. Watch all of my Video Lectures posted on the Content page of D2L. These lectures cover all of the material in the course including some topics not found in the textbook, but covered on the Midterm and Final Exam. These Video Lectures should be your first step towards learning the material.
4. Make sure you use all of your resources to learn the course material. Read through the text; watch my Video Lectures as well as those on MyMathLab; work through guided problems on MyMathLab; work through suggested homework problems in the text and on MyMathLab; and use the Multimedia Library on MyMathLab to view sample problems, animations, video clips, etc.
5. Attend office hours.
6. Get help on HW and groupwork activities in the Math Center or with a free Peer Tutor. Work together with fellow students!
7. **SHOW YOUR WORK** on all groupwork activities, Tests, Midterms and Finals.
8. Take a Chapter Test as soon as you feel you understand the material that the test covers well; don't leave Tests until the day or night before the deadline. It may take several attempts before you get 85%, so start early!
9. **DON'T FALL BEHIND!!!** (It bears repeating!)
10. Ask for help when you need it.