

MA 100-002 INTERMEDIATE ALGEBRA FALL 2009

CLASS TIME: TR 2:00-3:15 pm, Lecture (PH 104), MATHLAB (Fant Library)

INSTRUCTOR: Dhruba Adhikari 329-7237 dadhikari@as.muw.edu PH201C

OFFICE HOURS: MTWR 1:00 - 2:00 pm, T 11:00 -12:00 pm
or, by appointment

Feel free to call or email me if you need to arrange an appointment outside of my normal office hours. I should always be the first person you come to with your questions about course content. You can also contact Academic Support Services, who will be happy to set up a tutoring time with a mathematics tutor, at no charge to you.

SOFTWARE (REQUIRED): Hawkes Learning Systems, Intermediate Algebra

TEXT (OPTIONAL): Intermediate Algebra, Paul Sisson, 5th edition, Hawkes Publishing

PREREQUISITE: None.

Note: Effective January 2010, the prerequisite is ACT math sub-score of 19 or higher, or MA 100 with grade of C or better is needed to continue on to MA 113.

NATURE OF THE COURSE CONTENT

Designed for students who did not take two years of high school algebra, all entering freshmen with an ACT Mathematics subtest score of 16 or below, or for mature students who are returning to school, and who have not taken an algebra course in several years.

Real number arithmetic, solving linear equations and inequalities in one variable, graphing linear equations in two variables, polynomial arithmetic, factoring, rational expressions.

This course cannot be used to satisfy graduation requirements.

TOPICS AND ORDER COVERED

Chapter 1 (1.1 – 1.8) Real Numbers, Solving Equations, and Exponents

- 1.1 Properties of Real Numbers
- 1.2 Operations with Real Numbers
- 1.3 First-Degree (or Linear) Equations and Absolute Value Equations
- 1.4 Evaluating and Solving Formulas
- 1.5 Applications
- 1.6 Linear Inequalities and Absolute Value Inequalities
- 1.7 Properties of Exponents
- 1.8 More on Exponents and Scientific Notation

Chapter 2 (2.1 – 2.4) Straight Lines and Functions

- 2.1 Cartesian Coordinate System and Straight Lines
- 2.2 Slope-Intercept Form
- 2.3 Point-Slope Form
- 2.4 Introduction to Functions

Chapter 4 (4.1 – 4.6) Polynomials

- 4.1 Addition and Subtraction of Polynomials
- 4.2 Multiplication of Polynomials
- 4.3 Division with Polynomials and Synthetic Division
- 4.4 Introduction to Factoring
- 4.5 Special Factoring Techniques
- 4.6 Polynomial Equations and Applications

Chapter 5 (5.1 – 5.5) Rational Expressions

- 5.1 Multiplication and Division of Rational Expressions
- 5.2 Addition and Subtraction of Rational Expressions
- 5.3 Complex Fractions
- 5.4 Equations and Inequalities with Rational Expressions
- 5.5 Applications

Chapter 6 (6.1 – 6.2) Roots, Radicals and Complex Numbers

- 6.1 Roots and Radicals
- 6.2 Rational Exponents

Chapter 7 (7.1) Quadratic Equations

- 7.1 Quadratic Equations: The Square Root Method

DESIRED GOALS AND OUTCOMES

After successful completion of the course the student should be able to:

1. perform real number arithmetic;
2. solve linear equations, inequalities, and application problems in one variable;
3. graph linear equations in two variables;
4. use the slope-intercept form, and point-slope form;
5. perform polynomial arithmetic;
6. factor polynomials;
7. solve polynomial equations and applications by factoring;
8. perform rational expression arithmetic;
9. solve equations and inequalities involving rational expressions;
10. evaluate and simplify expressions with roots and rational exponents; and
11. understand relations and functions.

Class

- Class meets twice a week; once for the lecture and once for the Mathematics Lab.
- Attendance in lecture and Mathematics Lab is required. You should keep track of your attendance.
- Video lectures for all sections are available. They can be accessed through the course software.
- You must keep a three-ring binder notebook with all of your organized class notes and other work in it.
- You must bring a required calculator to every class.

Hawkes Software

- The MUW Mathematics Lab is located in the Fant Library.
- You should plan to spend at least five to six hours per week either in the Mathematics Lab or elsewhere in order to master the material. Instructors and tutors will be in the Mathematics Lab ready to provide you with immediate and personalized help.
- The Mathematics Lab will be open from 9 AM – 6 PM Monday through Thursday, and 9 AM – 1 PM on Friday except on university holidays. Any changes in the hours of operation will be posted in the Mathematics Lab.
- **You are allowed to do only your MA 100 work while you are in the Mathematics Lab.**
- You must bring your three-ring binder notebook with you to the Mathematics Lab. Do all of your work in it in an orderly manner.

Notebook

- Notebook grade will be given at the end of the semester and will count for 5% of your grade. Your note book will consist of your lecture notes and printed out notes of the lecture for next week in a hole punched three-ring binder.

Homework

- Homework will be assigned for each section of material and will count for 20% of your grade.
- Homework can be done from anywhere on the computer using the Hawkes software.
- Due date for each homework assignment will be listed within the Hawkes' progress report (<http://www.hawkeslearning.com/muwima>). **Homework will never be accepted late.**
- At the end of the semester, the six homework assignments with the lowest grades will be dropped.

Tests

- There will be four major tests during the semester. Each test will be a Web Test covering the material from the lectures and the software.

- After each test, a test retake will be available only for those who took the test. You are allowed retake the test twice on your own time over a limited time period. The highest score on the test retake will be averaged with your original test if it helps your grade.
- There will be **absolutely NO make-up tests given for ANY reason.**
- No tests will be dropped. A grade of zero will be assigned for each missed test, regardless of the reason for the absence. If you miss a test, your final exam percentage will be used to replace that test. Only one missed test score can be replaced by your final exam percentage.
- Each test will count for 12.5% of your grade.
- Test dates:
 - Test 1: Tuesday, September 15, 2009
 - Test 2: Tuesday, October 13, 2009
 - Test 3: Tuesday, November 3, 2009
 - Test 4: Tuesday, November 24, 2009

Final Exam

- The final examination is comprehensive test, and will count for 25% of your grade.
- You must take your final exam at the scheduled time.
- Your final exam grade will not be dropped or replaced, or retaken.
- Final exam date: Thursday, December 3rd, 3:00 PM – 6:00 PM

METHOD OF EVALUATION

A weighted percentage from the following sources will be calculated:

Notebook	5%
Homework	20%
Tests	50%
Final Exam	25%

Grades will be assigned according to the following scale:

A	90% to 100%
B	80% to 89.9%
C	70% to 79.9%
D	60% to 69.9%
F	below 60%

CALCULATORS AND ELECTRONIC DEVICES

- A scientific calculator is required for this course. We do **not** allow any symbolic calculators, such as TI-89 and TI-92 (or the equivalent in another brand name; e.g. Sharp, Casio, etc.). If you have questions concerning this requirement, please see the instructor.
- Headphones to listen to the video lectures in the Mathematics Lab are required.
- All cell phones, iPods, MP3 players, and any other electronic devices must be turned off and stowed away out of sight. Any students violating this rule will be asked to leave the class for the remainder of the class counted absence.

ATTENDANCE

The Department of Sciences and Mathematics requires that you attend at least 70% of the classes in order to be eligible to earn a passing grade in a course. This means that you must have no more than **8** absences, excused and unexcused.

ACADEMIC DISHONESTY

All of your graded work outside of class should be your own effort and no one else's. The Academic Dishonesty section under Academic Information in the MUW Student Handbook clearly defines cheating and plagiarism. You will be held to the Academic Standards described under Student Rights and Responsibilities.

STUDENTS WITH DISABILITIES

It is the responsibility of students who have professionally diagnosed disabilities to notify the instructor so that necessary and appropriate modifications can be made to meet any special learning needs.

EARLY ALERT PROGRAM

As one part of the academic early-alert program, students who perform poorly at midterm (falling below a midterm semester GPA of 2.0) will have holds placed on their accounts. The early-alert holds for poor midterm performance serve not as a punitive measure, but rather as an opportunity for students to seek the advice of their faculty advisors at a crucial moment in the semester. Students who have early-alert holds on their accounts for poor midterm performance should schedule meetings with their faculty advisors, who will work with the students to draw up action plans for academic success. Once those plans are in place, the early-alert holds for poor midterm performance will be released.

IMPORTANT DATES

August 18 Last day to enter classes for credit and change from grade to pass-fail
September 16 Last day to drop without WP or WF or change from credit to audit
October 14 Last day a course may be dropped
November 6 Last day to withdraw from the university

Schedule for MA 100 Intermediate Algebra Fall 2009

Homework assignments are due at 11 PM.

Monday	Tuesday	Wednesday	Thursday	Friday
Aug 10	Aug 11	Aug 12	Aug 13 Class 1.1	Aug 14
Aug 17	Aug 18 Lab with instructor	Aug 19	Aug 20 Class 1.2, 1.3	Aug 21
Aug 24	Aug 25 Lab with instructor	Aug 26	Aug 27 Class 1.4, 1.5	Aug 28
Aug 31	Sep 1 Lab with instructor	Sep 2	Sep 3 Class 1.6	Sep 4
Sep 7 Labor Day- lab closed	Sep 8	Sep 9	Sep 10 Class 1.7, 1.8	Sep 12
Sep 14	Sep 15* Test #1 Lab with instructor	Sep 16	Sep 17 Class 2.1, 2.2	Sep 18
Sep 21	Sep 22 Lab with instructor	Sep 23	Sep 24 Class 2.3, 2.4	Sep 25
Sep 28	Sep 29 Lab with instructor	Sep 30	Oct 1 Class 4.1, 4.2	Oct 2
Oct 5 Fall Break- lab closed	Oct 6 Fall Break	Oct 7	Oct 8 Class 4.3, 4.4	Oct 9
Oct 12	Oct 13* Test #2 Lab with instructor	Oct 14	Oct 15 Class 4.5, 4.6	Oct 16
Oct 19	Oct 20 Lab with instructor	Oct 21	Oct 22 Class 5.1	Oct 23
Oct 26	Oct 27 Lab with instructor	Oct 28	Oct 29 Class 5.2, 5.3	Oct 30
Nov 2	Nov 3* Test #3 Lab with instructor	Nov 4	Nov 5 Class 5.4, 5.5	Nov 6
Nov 9	Nov 10 Lab with instructor	Nov 11	Nov 12 Class 6.1, 6.2	Nov 13
Nov 16	Nov 17 Lab with instructor	Nov 18	Nov 19 Class 7.1	Nov 20
Nov 23	Nov 24* Test #4 Lab with instructor	Nov 25 lab closed Thanksgiving Holidays	Nov 26 lab closed Thanksgiving Holidays	Nov 27 lab closed Thanksgiving Holidays
Nov 30 Final Exams	Dec 1 Final Exams	Dec 2* Final Exams	Dec 3 Final Exams	Dec 4 Final Exams

*Test 1: Tuesday, September 15, 2009

*Test 2: Tuesday, October 13, 2009

*Test 3: Tuesday, November 3, 2009

*Test 4: Tuesday, November 24, 2009

*Comprehensive FINAL EXAM: Wednesday, Dec 2nd, 3:00 PM - 6:00 PM

Mathematics Lab Hours: 9 AM – 6 PM Monday through Thursday, and 9 AM – 1 PM on Friday except on university holidays. Any changes in the hours of operation will be posted in the Mathematics Lab.

HAWKES LEARNING SYSTEMS COLLEGE ALGEBRA STUDENT DIRECTIONS

TO INSTALL THE SOFTWARE AT HOME:

1. Place CD #1 - Installation Disc in the CD-ROM drive.
2. The installation will begin automatically. Follow the on-screen instructions.
3. You will be prompted to enter a **HLS Course ID**.
 - **If you have internet access**, select "Yes, the HLS Course ID is:" and enter **MUWIMA**
 - **If you do not have internet access**, select "No, I will not be accessing an online grade book from this computer."

TO GET YOUR ACCESS CODE:

1. Either go to www.hawkeslearning.com and click on "[get your access code](#)" or click on the "[I need an access code...](#)" link from the software.
2. Fill out the form (including your 15-digit license number from the yellow sticker on the CD sleeve). Click on the submit button and your personalized Access Code will appear on the screen. You will also receive an e-mail with the Access Code as an attachment called "**access.cod**" which you should save to a floppy disk or another device.

TO ENTER THE SOFTWARE AND SAVE YOUR ACCESS CODE:

1. Double-click on the purple diamond icon on your Desktop (or go to Start, Programs, Hawkes Learning Systems).
2. Enter your Access Code when prompted. You may type it, paste it, or load it from a disk by clicking the "Load From Disk" option. If you type or paste your Access Code, you will be prompted to save it. Save your Access Code to avoid typing it each time.

TO ENROLL IN YOUR INSTRUCTOR'S GRADE BOOK:

1. **If you have internet access** and have entered your HLS Course ID (which is **MUWIMA**), you will be asked to enroll in your instructor's grade book. Choose your instructor's name and the correct section.
2. **If you do not have internet access**, you will need to enroll in your instructor's grade book by going to www.hawkeslearning.com/MUWIMA. After entering your Access Code, you will be prompted to choose your instructor's name and the correct section.

TO CERTIFY (DO YOUR ASSIGNMENT IN THE SOFTWARE):

1. The **Certify** option is where you will complete your assignment.
2. After certifying, you will be given a certification code (this verifies that you completed your assignment). It is recommended that you print and/or save your certification code.
3.
 - a. **If you have internet access**, you should receive a message that says your certificate for the lesson has been registered successfully. If you do not receive this message, follow the directions under "**b.**".
 - b. **If you do not have internet access**, you will need to manually submit your certification code on the internet to get credit for your assignment in your instructor's grade book. To do this,
 - Go to www.hawkeslearning.com/MUWIMA and log in using your Access Code.
 - Click the [Submit Certificate\(s\)](#) tab option.
 - If you saved your certification code to a file, click "Browse" to find your code and click "Submit Certificate". If you have a paper copy of your certificate, click the "Type or Paste" tab, select the lesson you have certified in, type in your code and click "Submit Certificate".

*** Be sure you submit your Certification Code ON or BEFORE the due date to get full credit for the assignment.**