Math 95: Intermediate Algebra

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Office Hours:
Monday, Wednesday 4-4:50

Tuesday, Thursday 2-2:50

Introduction: Welcome to Math 95, Intermediate Algebra. Please note that this course does not carry college credit. It does, however, carry enrollment credit that satisfies financial aid requirements.

The prerequisite for Math 95 is Math 70. If you could use a slower approach/refresher to the material, please consider enrolling in Math 70. This course is a prerequisite for Math 111, Math 105, 106, or 107, and Math 211.

Course Text: The required text for this course is *Beginning and Intermediate Algebra*, 4th edition, by Miller, O'Neill, Hyde. Either the publisher's edition or the custom version printed for the University of Oregon may be used for this class. There are two purchasing options:

- Textbook from the bookstore. It will come with Connect.
- Purchasing online from http://www.connectmath.com . At this site you may purchase connect math with an ebook (electronic copy of the book) which is the same as the physical copy offered in the bookstore.
- **Note:** The connect code is good for 52 weeks so you can continue to use your code from last term as long as your have not exceeded the 52 week period.

Requires Materials: Besides the textbook, you will also need the following:

- Some graph paper and a ruler
- Connect Math (an online software that will either come with your book or you must purchase at http://www.connectmath.com .)
- Paper without frayed edges
- STAPLER (work is not accepted when not stapled)
- Pencils and erasers
- Access to Blackboard and your official university email address

Course Goals: By the end of this class students should be able to:

- Accurately and efficiently perform calculations with real numbers including signed numbers and fractions.
- Simplify and solve linear equations
- Graph linear equations and write the equation of the line
- Identify the graphs of square root, quadratic, absolute value, and linear functions
- Accurately apply the rules of functions, including:
    - Calculating $f(3)$, for example, given a graph, chart, or equation
    - Finding all real value(s) so that $f(x) = 3$ given a graph, chart, or equation
    - Finding the domain of a polynomial, absolute value, radical, or rational function
    - Finding the range of a function from its graph
- Perform operations involving polynomials and rational expressions
- Factor quadratic and other polynomials expressions
- Solve quadratic and polynomial equations by factoring
- Solve equations containing rational expressions
- Apply rules of exponents, and use scientific notation

- Simplify and perform operations involving radicals and rational exponents
- Solve equations involving radical expressions
- Solve quadratic equations by taking square roots, by completing the square, and by the quadratic formula
- Given a quadratic function, find its vertex, axis of symmetry, intercepts, and graph the parabola
- Solve word problems involving any of the above skills

Expectations: Be professional!

- Treat your peers and your instructor with respect. This is expected both in class and over email.
- Take care with your homework making sure it is neat, orderly, easy to follow, stapled, and free of frayed edges.
- Turn in your work on time.
- Ask questions and seek help when needed (office hours, tutoring, email, etc.)
- Do not procrastinate.
- Attend all lectures except under necessary circumstances (such as illness, etc.)
- Give yourself enough time to study with breaks.

Assignments:
- Book work is due every Monday at the BEGINNING of class.
- Quizzes will happen weekly on Mondays except on exam weeks. Extra quizzes may be assigned as announced in class.
- Attendance quizzes may be given on any day to help check understanding of the day's lecture and to check what students have attended class. Attendance is mandatory and these quizzes will affect your grade.
- There will be **two midterm** exams. The exams are tentatively scheduled for week 4 and week 8.
- All exams are cumulative.

Other Information:
- No class on Thanksgiving
- In case of inclement weather, please check blackboard for further instructions. In general, the university does not close for snow, etc. If it is not safe for you to come to campus, please be sure to email me right away.
- Please do not use your cell phones/laptops or other tech devices unless necessary (and having talked to me first about it). Please do tell me if you need them for translation purposes. **Do not text**. I can see you doing so and it is very distracting to me and your fellow students.
- **Late work is not accepted and makeup quizzes are not given.** Instead I drop the lowest two scores from each homework, attendance quizzes, and quizzes.
- **In general, we will NOT be using calculators.** Calculators will not be allowed on exams or most quizzes but may be allowed on some.

Grading:

This is a pass/no pass course that does not carry college credit. A grade of P is required to meet the prerequisite for Math 95. **In order to earn a P you need at least a 70% weighted average in the course AND at least a D- on the final exam. Both of these requirements must be met.**

Grades are calculated as follows:

Homework/Attendance/Quizzes	30%
Midterms	40%
Final	30%

While you will not receive a grade lower than what the above percentages give you, I do take improvement into account.

Accessible Education Statement:

The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu .

Master Syllabus Notes for Instructors:

- In general, calculators are not a good fit for Math 95. Students will need to know how to do signed numbers, fraction work, etc. without the aid of a calculator. You may, however, choose to incorporate some uses of a calculator as students often do not know how to use a calculator properly. I tend to emphasize work without a calculator but then do give some instruction in the calculator as well.

- I find that lecturing the entire time is not always the best for Math 95. I like to balance worksheets and group work with lecture time. I also find students are more likely to ask questions while I am walking around helping with worksheets then they are if I am only in front of the class lecturing.

- The online homework system is exceptional for helping students but be careful what options you allow. I usually disable to the options to provide a correct answer to the problem or the correct work for that exact problem. I do allow students to see solutions for similar problems. I often balance with bookwork and online homework. It is your choice whether or not to use the online platform.

- This course covers chapters 6-11. You can expect to spend a lot of time on chapter 6 and sometime reviewing chapter 5. I also find it necessary to review lines so students will know how to do them for Math 111. I usually do not cover these chapters in order.   You may choose the arrangement that makes the most sense to you. I find that I pace the schedule based on the needs of the individual class. A possible schedule is as follows:

    - Week 1: 6.1-6.6

    - Week 2: 6.7, 6.8, 7.1-7.3

    - Week 3: 7.4-7.7, 8.1

    - Week 4: 8.2, 8.3, Exam 1

    - Week 5: 9.1, 9.3, 9.4

    - Week 6: 10.1-10.3

    - Week 7: 10.4-10.7

    - Week 8: 11.1, 11.2, Exam 2

    - Week 9: 11.3, 11.4, Thanksgiving

    - Week 10: 11.5, 9.2, 8.4Review

    - **Notice that 9.2 and 8.4 are optional. Only cover them if you have time.**

    - **If you have more time, you may cover chapter 12.** Another option is to go back and spend more time with the material you covered and do some group work to delve further into the topics and better master the material.

- I suggest two midterms and a final. I usually have exam 1 in week 4 and exam 2 in week 8.

- If you teach more than one section of 70/95 your final exams are usually at 6 p.m. on Monday of finals week. Check with Eva if you need more information on when to expect your final exam.

- Students are often reluctant to purchase the textbook/Connect due to cost. Let them know that it is much cheaper to get the e-book with Connect and this costs $85. If students buy the text new at the bookstore it comes with Connect but costs $156. Used copies will not come with Connect so they will need to purchase it separately for $52.50 if you choose to use connect in your course.

- You are not required to use Connect. Paper markers are assigned by the department. WebWork may also be used. Please contact me if you have any questions about these options.

- Be prepared for students to struggle with the Math 70 material. Provide opportunity for review especially of lines and polynomials. You will also need to review linear inequalities and exponent rules.

- Please feel free to contact me with any questions. I am best reached via email: tnezol@uoregon.edu