

Math 95–Spring 2022 General Course Information-(Sec 05C)

Please, read the syllabus/general course outline document and familiarize yourself with general protocols of the course

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Math 95 - Intermediate Algebra: 2 cr. (8 weeks)

We will develop and practice math skills in the following areas:

- Linear equations, graphing of linear equations and inequalities, solving of problems involving exponents, factoring, radicals, function notation, and quadratic equations.
- The course will prepare you for the study of exponential and logarithmic functions, their solutions and graphs. (**some material may be modified**)
- **IMPORTANT:** If you are placed into remedial/developmental coursework in mathematics you must restrict your coursework to a level that will allow for success.

Text: Elementary & Intermediate Algebra, 5th Ed., by Alan S. Tussy and R. David Gustafson, customized for UWSP.

Supplementary Material: An optional online study guide complements the text.

Suggestions for success:

- **Behave appropriately and be responsible** for yourself and your own learning; and treat this course as your current job!
- **Read** the textbook and **review** examples and/or **review online resources**.
- **Develop effective study skills**
- **Attend** face-to-face lectures and **engage** your brain.

- **Do homework and assigned problems** (and practice problems) to understand concepts.
- **Communicate effectively and ask questions** before, during, and after class, or online, or at your convenience.
- **Visit** your instructor at his office to discuss coursework.
- **Utilize UWSP support resources** to get additional help.
- **Ask** classmates and likewise, **help** classmates when asked.

" ... The true test of understanding a concept or skill is being able to teach it to someone else ... "

Course Outcomes: Students should learn to understand and appreciate the following:

- Laws and properties of algebra must be followed to maintain relationships between numbers and variables.
- Algebraic expressions can be rewritten in an equivalent simplified form.
- Solving equations/inequalities is a process to find values that yield a true statement.
- There are several methods to use in solving equations/inequalities. So, analysis of the problem will determine the appropriate method to use.
- Graphs provide a visual way to view and analyze relationships between variables.
- Problem solving skills allow us to approach real life problems, analyze how to solve them, and check our answers.
 - Knowledge of exponents enables us to manipulate and solve polynomials.
 - Mathematics can help them better understand and describe the world around them.
 - Developing the potential and skills for finding or creating solutions for problems, which involves gathering and applying new knowledge, makes it possible for a person to solve problems in life.

Critical Thinking Learning Objectives:

This course is part of a pilot program that focuses on the intention to have students develop critical thinking skills across the disciplines.

In mathematics, critical thinking helps us identify mathematical problems, transform them into solvable problems, and solve them using appropriate techniques.

The pilot program adds the following learning outcomes for students to the course:

- The intention is to have students learn to recognize critical thinking as a process of identifying, evaluating and constructing mathematical reasoning in deciding what conclusions to draw or what techniques to apply to resolve a problem
- The intention is to have students learn to recognize that “perfect practice” and persistence are critical to developing and strengthening mathematical ability and acuity.
- The intention is to have students learn to demonstrate persistence, perseverance and resourcefulness in mastering mathematical concepts and techniques.

Target Audience: This **traditional section** is available for those seeking more explanations and examples. (However, the goal is for students to develop and have a working knowledge of the above topics and thus become highly motivated to study, independently, outside of face-to-face lectures

Course Format & Expectations:

- **Online Homework Component:** In this traditional course, it is expected that you will review online material and do online homework after face-to-face lectures. In-class lectures will cover content at a reasonable pace and self-motivation is expected.
- **Canvas / WebAssign / UWSP E-mail:** All three of these resources could be used for communication between the instructor and students. Students will be responsible for reading all messages and assignments posted on any of the above and in lectures.
- **Monday:** Always face-to-face instruction. Attendance is expected. Section 05C will meet in SCI A210 at appointed time.
- **Tuesday:** Always face-to-face instruction. Attendance is expected. Section 05C will meet in SCI A210 at appointed time.
- **Wednesday:** Always face-to-face instruction. Attendance is expected. Section 05C will meet in SCI A210 at appointed time.
- **Thursday:** Always face-to-face instruction. Attendance is expected. Section 05C will meet in SCI A210 at appointed time.
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- **Attendance:** Regular attendance is expected. Absences for serious illness, family emergencies, or University sponsored activities may be excused provided you adequately notify the instructor verbally, virtually, by text or e-mail **prior** to intended absence or if you provide documentation of an emergency after the fact. **Late tests will not be given for unexcused absences. Arrangements must be made PRIOR to the test date if possible.**
- **Homework:** Most homework will be completed online using WebAssign. Other assignments may be required via discussions in D2L, on paper, or other. Missed in-class assignments won't be available to make up unless you have an excused absence and may require attendance in MathPad for completion. Late penalties may be assessed for late

homework, unless absences were excused and documented as noted above. Homework will not be accepted after two weeks beyond the due date except at the discretion of the instructor. Extra credit earned during class periods will be not be accepted late.

- **Final Exam:** The final is an **in-person *written* (pencil & paper & scantron) exam tentatively scheduled for Friday, March 18th, 5pm -7pm (venue: SCI A202 or as otherwise determined by the department)**

Grading Scales: Grades will be based on the following percentages:

93 - 100%	A	73 - 76.99 %	C
90 - 92.99	A-	70 - 72.99	c-
87 - 89.99	B+	67 - 69.99	D+
83 - 86.99	B	60 - 66.99	D
80 - 82.99	B-	0 - 59.99	F
77 - 79.99	c+		

Homework:	25%
Quizzes:	25%
Tests:	20%
Final Exam:	30%

No grading category will exceed 105% for purposes of calculating the final grade.

The instructor reserves the right to exercise discretion in raising a student's grade if he feels that the final weighted average does not properly reflect the quality of a student's work. The

instructor will not use discretionary judgments to lower a student's final grade.

Incompletes: A grade of incomplete may be given when circumstances arise which are beyond the student's control and the student is unable to complete the course AND the student is passing when the circumstances arise.

Netiquette: Please read the article below and consider the rules for online discussions: <http://online.uwc.edu/technology/onletiquette.asp>. Violation of these rules will reduce participation points.

Electronics: Cell phones should be turned off during class time. Exceptions may be made for unusual circumstances if discussed with the instructor prior to use. Earphones/buds may **not** be used during a quiz or exam and will be considered as rude behavior during lectures.

Calculators: You may use any four-function, scientific, or graphing calculator, *except* calculators, pocket organizers, handheld or laptop computers, electronic writing pads, pen-input devices (the Sharp EL 9600 is permitted) or *calculators built into cellular phones or other wireless communication devices*, calculators with a typewriter keypad with keys in QWERTY format, calculators with built-in computer algebra systems;

Prohibited calculators in this category include:

- Casio: Algebra FX 2.0, ClassPad 300, and all model numbers that begin with CFX-9970G,
- Texas Instruments: All model numbers that begin with TI-89 or TI-92,
- Hewlett-Packard: HP 48GII and all model numbers that begin with HP 40G or HP 49G.
- Calculators which have been modified such as calculators with paper tape (remove the tape), calculators that make a noise (turn off the sound feature), calculators that can communicate wirelessly with other calculators [completely cover the infrared data port with heavy opaque material, such as duct tape or electrician's tape (includes HewlettPackard HP-38G series and HP-48G)], calculators that have power cords (remove all power/electrical cords) and they'll be acceptable.

Sharing calculators or smartwatches during exams/quizzes is not allowed.

General Course Policies

1. **Tests MUST be ONLY your own work.** You are encouraged to work together or ask for assistance on homework (unless otherwise specified), but it is your responsibility to understand and learn the content.
2. Generally, it is my policy to **not** allow make-up tests. An exception is likely to be made provided you make your request **in advance** of the test. The make-up date will need to be within a reasonable timeframe and at the convenience of the instructor.
3. Appeal of grading should be submitted in writing within 5 days of receiving the evaluation.

Campus resources: (please make use of them)

MathPad: CCC 302. MathPad is both a classroom and tutoring lab for students enrolled in Math 90/100 courses.

Math Tutoring Room: A113A Science. UWSP students provide free tutoring on a drop-in basis.

See <http://www.uwsp.edu/mathsci/Pages/tutoring.aspx> for details of above tutoring services.

The Tutoring Learning Center {TLC}: LRC 018 - The Tutoring-Learning Center offers individual tutoring. If you are enrolled in support services on campus such as Disability Services, Multicultural Affairs, or Student Support Services there is no fee. If you aren't enrolled in these services, one-on-one tutoring is available for a fee.

Disability Accommodation: Any student who has a disability and is in need of accommodations, please contact me and the Office of Disability Services (phone: 715-346-3365, disserv@uwsp.edu) as soon as possible.

Disability Accommodations: Information regarding Section 504 of the Rehabilitation Act or the Americans with Disabilities Act can be found at the UWSP Disability and Assistive Technology Center site <http://www.uwsp.edu/special/disability/>. To request any accommodations relevant to this class, you should first discuss the matter first with the staff at the Center. Details regarding the documentation necessary to qualify for accommodation can be found at <http://www.uwsp.edu/disability/Pages/toQualifyForDisabilityServices.aspx>.

Community Bill of Rights and Responsibilities: You should be fully aware of your rights and responsibilities as a UWSP student. These are detailed in

the UWSP Community Bill of Rights and Responsibilities found at

<http://www.uwsp.edu/dos/Documents/Community%20Rights%20and%20Responsibilities.pdf>.

In particular, this site includes links to the UWSP Student Academic Disciplinary Procedures, <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>

and to the Non-Academic Standards and Disciplinary Procedures, <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap17.pdf>.

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M95 course topics outline

Math 95 Syllabus Content Outline

Semester: Spring 2022

*Course content may be modified and streamlined as per the stipulations of the department

Textbook: Elementary and Intermediate Algebra, 5 edition. Tussy and Gustafson:

MATH 95 Intermediate Algebra 2 cr. (8 weeks)

We will develop and practice math skills in the following areas:

Exponents, Linear equations, Graphing of Linear Equations, Factoring, Radicals, Quadratic Equations, and Rational expressions.

Prerequisite: relevant placement test score

Note. The order of the sections listed below is not necessarily the order in which they are covered. However, the following order is recommended.

Chapter 5 Exponents and Polynomials

5.1 Rules for exponents

5.2 Zero and Negative Exponents

Chapter 6 Factoring and Quadratic equations

6.6 A Factoring Strategy

6.7 Solving Quadratic Equations by Factoring

Chapter 8

8.2 Functions (refer to Ch. 3.1 -3.6 for more depth in writing linear equations)

8.6 Review of Factoring Methods: (refer to Ch. 6.1 -6.5 for more depth in factoring)
GCF, Grouping, Trinomials

8.7 Review of Factoring Methods:

The Difference of Two Squares; the Sum and Difference of Two Cubes

Chapter 9

- 9.1 Radical Expressions and Radical Functions
- 9.2 Rational Exponents
- 9.3 Simplifying and Combining Radical Expressions
- 9.4 Multiplying and Dividing Radical Expressions
- 9.5 Solving Radical Equations
- 9.6 Geometric Applications of Radicals

Chapter 10

- 10.1 The Square Root Property and Completing the Square
- 10.2 The Quadratic Formula
- 10.3 The Discriminant and Equations That Can Be Written in Quadratic Form