MATH 107: ALGEBRA FOR PRE-CALCULUS FALL SEMESTER, 2022-23

Mondays and Wednesdays, 2:00 p.m. – 3:50 p.m., Room A225 SCI

<u>Course catalog description</u>: Factoring and simplifying rational expressions, interval notation, solving absolute value equations, linear inequalities, rules of exponents and logs, solving exponential equations, functional notation, evaluation of functions and graphs. <u>Prerequisites</u>: Math 95 or suitable placement test score. <u>General Education Designation(s)</u>: none. Credits: 2

INSTRUCTOR:

D. Tamres

Office: D357 SCI

Email: dtamres@uwsp.edu

Phone: 715-346-2120

OFFICE HOURS:

Monday: 12:00 p.m. - 12:50 p.m.

Wednesday: 12:00 p.m. - 12:50 p.m.

Monday: 4:00 p.m. - 4:50 p.m.

Wednesday: 4:00 p.m. - 4:50 p.m.

... or by appointment

TEXTBOOK:

Elementary and Intermediate Algebra (5th edition) by Tussy and Gustafson.

Published by Cengage Learning.

Attendance Policy:

1) A portion of your course grade will be based on attendance (see "Grading Policy" below). Excused absences are absences due to illness, to a death in the immediate family requiring you to be away from the campus temporarily, and to genuine emergencies. In all other cases, an absence is considered an excused absence only if the instructor deems it so after conferring with you PRIOR TO the absence. (In particular, if you cannot be present to take an exam, discuss the matter, if at all possible, with the instructor BEFORE the exam.) Evidence supporting the claim of an excused absence may be required. For example, if a medical condition prevents you from taking a scheduled exam, the instructor may ask you to submit verification from the attending health care professional.

As you arrange your work schedule, recreation schedule, social schedule, vacations, elective therapies and surgeries, etc., be mindful not to create conflicts with the schedule of lectures and exams in this course.

- 2) All exams will be announced in advance. Attendance at each one is required. The course policies concerning missed exams are as follows:
 - (a) If you miss an exam and your absence is unexcused, your score on that exam will be zero.
 - (b) If you miss an exam due to an excused absence, you will have the opportunity to take a make-up exam. It may be necessary, however, to schedule the make-up exam to take place during the week of final exams or later.

3) If the instructor is absent from class, in most cases another instructor will either substitute or will announce that the class session has been canceled. If there is no substitute instructor nor any announcement, please remain in the classroom for ten minutes before departing.

Grading Policy:

1) Your numerical course grade will be based on the following:

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25% Exam 1
25% Exam 2
25% Exam 3 (Final exam)
20% Homework and in-class quizzes (if any)
5% Attendance
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- 2) Your letter grade for the course will be determined by your numerical course grade (see item 1 above). The borderline between an A- and a B+ will be no higher than a numerical course grade of 90%. The borderlines between B-/C+, C-/D+, and D/F will be no higher than numerical course grades of 80%, 65%, and 50%, respectively.
- 3) Homework will be graded on the basis of its correctness, completeness, neatness, and clarity.

Other Policies:

- 1) In accordance with University of Wisconsin policy, any potential conflict between class work and religious observance must be made known to the instructor within the first three weeks of classes. You must notify the instructor of the specific days or dates for which you request relief from academic requirements on account of sincerely-held religious beliefs.
- 2) Throughout the course, your instructor may occasionally send announcements to you by email using your campus email address. These announcements will typically relate to assignments, exams, or your overall course standing. It is your responsibility to check your campus email account daily so that you do not miss any announcements from your instructor.
- 3) If you have a cell phone with you during lecture, have it in silent mode and put it away during the class period. Turn off any laptop computers, tablets, or other electronic devices that you may have with you and put them away. Do not use earphones or earbuds. The consent of the instructor is required for any exception to this policy.
- 4) During exams, the following may <u>not</u> be used: books, notes, calculators, electronic devices, and devices capable of telecommunication (electronic or otherwise). Do not use earphones or earbuds. The consent of the instructor is required for any exception to this policy.

5) UWSP's policies on the subject of student academic misconduct are set forth in a document titled "Student Academic Standards and Disciplinary Procedures." This document explains what constitutes academic misconduct and what your rights are if you are accused of academic misconduct. You will find it posted at: https://www3.uwsp.edu/dos/Documents/UWSP14-Final2019.pdf (See also: https://docs.legis.wisconsin.gov/code/admin_code/uws/14)

Advice from the Instructor:

- 1) Attend class regularly.
- 2) Read the assigned sections of the textbook and pay particular attention to the worked examples. If you find a homework problem particularly puzzling, try looking back at the worked examples for that section of the textbook. If a careful re-reading of the worked examples isn't helping, and if you are still puzzled after devoting a reasonable amount of time and effort to solving the problem, seek help from your instructor or from a tutor.
- 3) To the extent that you are able, find time to solve additional problems in the textbook. Select some odd-numbered problems at the end of the assigned sections and work out their solutions. (Answers to the odd-numbered problems are in the back of the textbook.) Tackling additional problems provides you with valuable practice and allows you to self-assess your math skills. As always, see your instructor or a tutor if you find yourself having difficulties.

Tutoring resources at UWSP

<u>MathPad – CCC 302</u>: The MathPad is a free tutoring service and computer lab located in CCC 302 dedicated to working with students in MATH 90, 95, and 107. This semester, all MathPad tutoring is being done in-person. Whether you want to work on your homework assignments with somebody who can answer questions or just need help with a single question, feel free to stop in whenever you can. The MathPad tutoring hours are posted on the door of CCC 302 and are subject to revision. If you have questions concerning MathPad, please contact Terry Rood (trood@uwsp.edu).

STEM Tutoring Program: The STEM Tutoring Program is intended to help students with course content in several disciplines, including math. It is located in CBB 190. The STEM Tutors can help you deepen your understanding of course material, practice problems with the guidance of a peer tutor, and develop necessary study and test-taking skills. To get information on schedule, group tutoring, and one-on-one tutoring, please go to the STEM Tutoring Website: https://www.uwsp.edu/tlc/Pages/CA-tutoring.aspx

Tentative Schedule for Lectures and Exams

Wk	Dates	LECTURE TOPICS AND EXAM SCHEDULE
1		Section 5.1: Rules for Exponents
	Oct. 31,	Section 5.2: Zero and Negative Exponents
	Nov. 2	Section 9.2: Rational Exponents
		Section 6.1: The Greatest Common Factor; Factoring by Grouping
2	Nov. 7, Nov. 9	Section 8.6: Review of Factoring Methods: GCF, Grouping,
		Trinomials
		Section 8.7: Review of Factoring Methods: The Difference of Two
		Squares; the Sum and Difference of Two Cubes
		Section 7.1: Simplifying Rational Expressions
3		Section 7.2: Multiplying and Dividing Rational Expressions
	Nov. 14,	Section 7.3: Adding and Subtracting with Like Denominators;
	Nov. 16	Least Common Denominators
	,	EXAM 1: Wed., Nov. 16, on Sections 5.1, 5.2, 9.2, 6.1, 8.6, 8.7, 7.1
4	Nov. 21, Nov. 23	Section 7.4: Adding and Subtracting with Unlike Denominators
		Section 7.5: Simplifying Complex Fractions
		Section 7.6: Solving Rational Equations
		Section 8.2: Functions
5		Section 8.3: Graphs of Functions
	Nov. 28,	Section 11.1: Algebra and Composition of Functions
	Nov. 30	Section 11.2: Inverse Functions
		Section 11.3: Exponential Functions
6	Dec. 5, Dec. 7	EXAM 2: Mon., Dec. 5, on Sections 7.2, 7.3, 7.4, 7.5, 7.6, 8.2, 8.3
		Section 11.4: Logarithmic Functions
		Section 11.5: Base-e Exponential and Logarithmic Functions
7		Section 11.6: Properties of Logarithms
	Dec. 12,	Section 11.7: Exponential and Logarithmic Equations
	Dec. 14	Section 8.4: Solving Compound Inequalities
		Section 8.5: Solving Absolute Value Equations and Inequalities
8		FINAL EXAM (EXAM 3): <u>Monday, Dec. 19, 5:00 p.m. – 7:00 p.m. in</u>
		Room A113 SCI
		on Sections 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 8.4, 8.5

<u>Homework</u>

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Section	Assigned Problems from the Section's Study Set
5.1: Rules for Exponents	7, 21, 25, 27, 41, 45, 49, 51, 53, 65, 73, 75, 81,
	83, 85, 87, 89, 95, 99, 105, 107, 109, 117, 119
5.2: Zero and Negative Exponents	7, 13, 17, 23, 27, 31, 35, 39, 45, 47, 55, 57, 63,
	71, 73, 79, 81, 87, 97, 107, 111, 115, 121, 123
9.2: Rational Exponents	7, 19, 29, 31, 37, 45, 49, 59, 71, 75, 77, 79, 83,
·	89, 91, 95, 101, 113, 117, 119, 121, 127, 131, 133
6.1: The Greatest Common Factor;	1, 17, 23, 33, 49, 51, 59, 61, 65, 69, 73, 75, 77,
Factoring by Grouping	81, 91, 93, 95, 99, 101, 105, 109, 111, 119, 121
8.6: Review of Factoring Methods:	9, 15, 17, 21, 25, 35, 37, 41, 43, 45, 47, 53, 59,
GCF, Grouping, Trinomials	61, 71, 79, 83, 91, 95, 101, 105, 109, 117, 121
8.7: The Difference of Two Squares;	9, 17, 19, 27, 29, 31, 35, 39, 43, 47, 49, 51, 53,
Sum & Difference of Two Cubes	57, 65, 71, 73, 77, 79, 83, 91, 95, 97, 103
7.1: Simplifying Rational Expressions	7, 23, 27, 35, 39, 49, 51, 55, 57, 59, 61, 63, 65,
	67, 69, 73, 79, 83, 85, 87, 89, 91, 95, 99
7.2: Multiplying and Dividing Rational	13, 15, 19, 23, 25, 27, 29, 35, 39, 43, 45, 53, 59,
Expressions	65, 69, 73, 75, 81, 87, 89, 91, 93, 95, 99
7.3: Adding and Subtracting with	13, 17, 19, 21, 23, 27, 33, 35, 37, 39, 41, 45, 47,
Like Denominators	57, 65, 69, 73, 79, 85, 87, 91, 93, 95, 99
7.4: Adding and Subtracting with	11, 15, 19, 21, 23, 27, 33, 35, 41, 45, 47, 53, 55,
Unlike Denominators	57, 59, 61, 65, 71, 73, 75, 81, 83, 87, 91
7.5: Simplifying Complex Fractions	9, 13, 17, 21, 27, 29, 35, 39, 41, 45, 49, 55, 57,
7.5. Simplifying complex (Tactions	61, 63, 69, 71, 73, 81, 83, 85, 87, 93, 95
7.6: Solving Rational Equations	19, 21, 23, 29, 33, 37, 39, 41, 43, 45, 49, 57, 59,
7.0. Solving National Equations	61, 63, 65, 67, 71, 73, 79, 83, 89, 91, 93
8.2: Functions	1, 3, 5, 11, 17, 21, 25, 33, 39, 41, 45, 63, 73,
0.2. Tanctions	77, 79, 85, 87, 89, 95, 97, 99, 101, 103, 105
8.3: Graphs of Functions	3, 7, 11, 13, 15, 17, 25, 27, 31, 37, 41, 45, 51,
olo. Graphis of Fairetions	53, 55, 57, 63, 67, 69, 71, 73, 75, 97, 99
11.1: Algebra and Composition of	3, 5, 13, 15, 17, 19, 33, 35, 37, 39, 41, 43, 45,
Functions	47, 49, 57, 59, 63, 67, 69, 71, 75, 77, 79
11.2: Inverse Functions	1, 3, 5, 7, 11, 19, 21, 23, 25, 27, 29, 31, 33,
11.2. Hiverse Functions	35, 41, 45, 47, 49, 51, 53, 59, 61, 65, 67
11.3: Exponential Functions	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 23, 27, 29,
11.5. Exponential runctions	31, 33, 39, 41, 45, 47, 49, 51, 53, 55, 57
11.4: Logarithmic Functions	7, 23, 27, 37, 39, 41, 43, 45, 49, 51, 53, 55, 57,
11.4. Logaritismic Fusicions	63, 67, 83, 89, 93, 99, 101, 103, 105, 111, 117
11.5: Base- <i>e</i> Exponential and	3, 5, 9, 11, 25, 29, 33, 37, 39, 41, 45, 47, 49,
Logarithmic Functions	53, 55, 59, 63, 65, 73, 75, 77, 93, 97, 99
11.6: Properties of Logarithms	5, 11, 19, 21, 23, 27, 31, 35, 41, 49, 53, 57, 63,
ario. Froperties of Logarithms	65, 67, 71, 75, 79, 81, 83, 85, 95, 97, 101
11.7: Exponential and Logarithmic	21, 27, 31, 33, 35, 37, 39, 43, 49, 53, 57, 59, 67,
Equations	71, 73, 77, 79, 81, 83, 89, 91, 93, 105, 115
8.4: Solving Compound Inequalities	1, 11, 19, 23, 25, 27, 31, 33, 37, 39, 43, 45, 49,
5.4. Solving Compound mequalities	51, 55, 61, 67, 71, 73, 75, 77, 79, 81, 85
8.5: Solving Absolute Value	11, 13, 15, 17, 23, 29, 33, 35, 39, 45, 49, 51, 53,
Equations and Inequalities	59, 61, 65, 69, 73, 81, 85, 89, 91, 103, 107
Equations and mequanties	33, 01, 03, 03, 13, 01, 03, 03, 31, 103, 101

Emergency response guidance:

- 1) In the event of a medical emergency, call 9-1-1 or use a campus phone. (The red emergency phone nearest to our classroom is located outside room B212 SCI.) Offer assistance if you are trained and willing to do so. Guide emergency responders to the victim.
- 2) In the event of a tornado warning, proceed to the lowest level interior room without window exposure. See www.uwsp.edu/emergency/Pages/floor-plans.aspx for floor plans showing severe weather shelters on campus. Avoid wide-span structures such as gyms, pools, or large classrooms.
- 3) In the event of a fire alarm, evacuate the building in a calm manner. Proceed to a location at least 100 yards (the length of a football field) away from the building. Wait for an "all clear" announcement before re-entering the building.
- 4) In the event of an active shooter, "RUN. HIDE. FIGHT." If trapped, hide, lock doors, turn off all lights, spread out and remain quiet. Silence phones. Call 9-1-1 when it is safe to do so. Follow the instructions of emergency responders.
- For details on all emergency procedures at UWSP, see https://www3.uwsp.edu/emergency/Pages/emergency-procedures.aspx