Math 95, Section 2   Intermediate Algebra   Fall 2022 Syllabus

George Adams Email: gadams@uwsp.edu **preferred method of contact**	**Office Hours** Monday: 5:30-6:00 pm, 8-9pm Tuesday: 6-7pm by appointment virtually Wednesday: 5:30-6:00pm, 8-9pm	**Final Exam: Thursday, October 27, 5-7pm, A202**

MATH 95　　　　　Intermediate Algebra　　　　2 credits

Linear equations including graphing, exponents, radicals, function notation, and quadratic equations.

Prerequisite: Math 90 or suitable placement score.

Required Text: Elementary & Intermediate Algebra, 5th Ed., by Alan S. Tussy and R. David Gustafson, customized for UWSP. Available as a textbook rental from the campus bookstore.

To Be Successful, you will need:
1) Persistence; work 'til you get it.
2) Time Management and Motivation; plan on at least 2-4 hours of HW per class meeting
3) Assertive Communication; ask questions of your professor (me) right away. Students who communicate with me have always done well in class.
4) Reading and writing math both online and using the textbook; read and understand the examples;
5) Good Study Environment:
    a. Reliable Internet
    b. Peace and Quiet; no distractions
    c. Turn your cellphone off
    d. Only open tabs related to your assignment
    e. Comfortable, well-lit work space.

Course Learning Outcomes: Upon the successful completion of this course you will depart with the understanding that:

1. Algebraic expressions can be rewritten in an equivalent simplified form.

2. Solving equations/inequalities is a process where to find value(s) that yield a true statement.

3. There are several methods to use in solving equations/inequalities so analysis of the problem will determine the appropriate method to use.

You will meet the outcomes listed above by completing homework, quizzes and tests in WebAssign, submitting your written work for the quizzes and tests, and by taking a final exam in Canvas.

Expected Instructor Response Times
- I will attempt to respond to student emails within 24 hours. If you have not received a reply from me within 24 hours please resend your email.
- I will attempt to grade written work for tests and quizzes within 72 hours.

Course Structure

This course will be delivered in-person.

Each class period will be followed by homework assignments to complete in the textbook. In addition to participating in classroom activities, you should also read your textbook, and work all the examples given, so you understand the steps required to work each problem (see "Tips For Success/How to Study" at the end

of this document). Then you will be better prepared to do your homework. There will be an in-class quiz or exam each Wednesday evening that we have class.

Due Dates: It is your responsibility to make every effort to keep up with the scheduled work. Only in rare cases will I extend a homework due date beyond the automatic extension period. <u>Quizzes and exams may not be made up unless arranged with me ahead of time, and then only for sufficient reason.</u> You may reach out for help at any time! You may work ahead; however, the quizzes and tests must be taken on the scheduled days. Dates for the quizzes and exams, and due dates for the assignments are in the calendar in WebAssign, and are also in the course calendar.

Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to make corrections or updates to the syllabus. Any changes will be clearly noted in class!

Student Expectations

In this course you will be expected to complete the following types of tasks.

- communicate via email and office hours
- complete homework to be checked every Monday from your textbook.
- stay on task and meet the due dates
- contact your instructor (via email) or attend office hours in Zoom whenever you need help

Technology

Protecting your Data and Privacy

UW-System approved tools meet security, privacy, and data protection standards. For a list of approved tools, visit this website. https://www.wisconsin.edu/dle/external-application-integration-requests/

Tools not listed on the website linked above may not meet security, privacy, and data protection standards. If you have questions about tools, contact the UWSP IT Service Desk at 715-346-4357.

Here are steps you can take to protect your data and privacy.

- Use different usernames and passwords for each service you use
- Do not use your UWSP username and password for any other services
- Use secure versions of websites whenever possible (HTTPS instead of HTTP)
- Have updated antivirus software installed on your devices

Course Technology Requirements

- View this website to see minimum recommended computer and internet configurations for Canvas and WebAssign.

UWSP Technology Support

- Visit with a Student Technology Tutor
- Seek assistance from the IT Service Desk (Formerly HELP Desk)
  - o IT Service Desk Phone: 715-346-4357 (HELP)
  - o IT Service Desk Email: techhelp@uwsp.edu

Calculators: You [Help] may use any four-function, scientific, or graphing calculator, *except* calculators including pocket organizers, handheld or laptop computers, electronic writing pads, pen-input devices 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

Graded Course Activities

Homework will be assigned daily and will consist of problems you will complete in your textbook. Homework will be checked and/or collected every Monday. Remember that for each hour we would be meeting in class if we were meeting in person, you should expect to spend about two hours studying and completing homework. So you should plan to invest about 12 hours per week on this class.

When you do your homework, it is advisable to do your work <u>on paper</u> in an <u>organized</u> way (I suggest keeping a notebook so all your work is together), just as you would do if you were doing the problems directly from the textbook and handing it in to be graded. Your exams and quizzes may be on paper.

Late Penalties for Homework Assignments:
• Extensions will be at the discretion of the instructor.

Quizzes and Exams: You will have four quizzes, and two unit exams.

Final Exam: the comprehensive final exam is scheduled for **Thursday, October 27, 5-7pm. BE SURE TO KEEP THIS TIME SLOT OPEN AND AVAILABLE IN YOUR SCHEDULE!!**

Participation
Students are expected to participate in all classroom activities.

Evaluation: Your final course grade will be determined by the following weights:

26% for daily homework	30% for Exams
28% for quizzes	16% for the comprehensive final exam

Grading Scale:

A:	≥ 92%	A – :	≥ 90% but < 92%		
B + :	≥ 88% but < 90%	B :	≥ 82% but < 88%	B – :	≥ 80% but < 82%
C + :	≥ 78% but < 80%	C :	≥ 74% but < 78%	C – :	≥ 72% but < 74%
D + :	≥ 69% but < 72%	D :	≥ 65% but < 69%	F :	< 65%

Build Rapport
If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

For Help: 1) Ask questions as they arise. You can send me an email. 2) Drop in to one of my office hours. 3) Make use of the MathPad. 4) Tutoring services (through the TLC) are available for this course. 5) Use the STEM drop in help center in room CBB190.

Understand When You May Drop This Course

It is the student's responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](#) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student's family.

Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if 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. All incomplete course assignments must be completed within 8 weeks.

Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the Disability and Assistive Technology Center and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to Disability Services and meet with a Disability Services counselor to request special accommodation *before* classes start.

The Disability and Assistive Technology Center is located in 609 Albertson Hall and can be contacted by phone at (715) 346-3365 (Voice) (715) 346-3362 (TDD only) or via email at datctr@uwsp.edumailto:datctr@uwsp.edu

Statement of Policy

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center in 609 ALB, or (715) 346-3365.

Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

UWSP Academic Honesty Policy & Procedures
Student Academic Disciplinary Procedures
UWSP 14.01 Statement of principles
The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

UWSP 14.03 Academic misconduct subject to disciplinary action.
   (1) Academic misconduct is an act in which a student:
   (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
   (b) Uses unauthorized materials or fabricated data in any academic exercise;
   (c) Forges or falsifies academic documents or records;
      (d) Intentionally impedes or damages the academic work of others;
   (e) Engages in conduct aimed at making false representation of a student's academic performance; or
   (f) Assists other students in any of these acts.

   (2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Religious Beliefs
Relief from any academic requirement due to religious beliefs will be accommodated according to UWS 22.03, with notification within the first three weeks of class.

TOPICS Covered:

Note. The order of the sections listed below is not the order in which they are covered.

5.   **Exponents and Polynomials**

5.1   Rules for Exponents

5.2   Zero and Negative Exponents

8.   **Transition to Intermediate Algebra**

8.2   Functions

8.6   Review of Factoring Methods: GCF, Grouping, Trinomials

8.7   Review of Factoring Methods: The Difference of Two Squares; the Sum and Difference of Two Cubes

6.   **Factoring and Quadratic Equations**

6.6   A Factoring Strategy

6.7   Solving Quadratic Equations by Factoring

9.   **Radical Expressions and Equations**

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

10.   **Quadratic Equations, Functions, and Inequalities**

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

Tips for Success/How to Study: You should expect to spend about 2-3 hours studying for each hour of class time, on average. For this course, that means at least 8-12 hours a week should be spent studying math! Here are my tips for success:

- Take complete and neat notes. Note any questions you have and send me an email, drop in to an office hour, or ask after class.

- Read the relevant section in the textbook/ebook, with paper and pencil handy. Write down all the key points (usually in boxes in the book!).

- Carefully copy out the textbook examples. Try to understand why each step is taken.

- NOW you are ready to do your homework.

- Keep a notebook with all your math homework.

- Stay organized.

- Write out the problem/question on your paper, then do the work required before you input your answer(s). SHOW ALL YOUR WORK!! Do not skip any steps.

- Do not cram your work into a small space. Neatness is very important.

- When you have questions about homework problems, I expect to be able to see the work you have done so far so that I can identify where you need help.

- If you need more practice, your book has review exercises and a practice chapter test at the end of each chapter.

- You can only master math skills by practicing them. You cannot master them by watching me do problems; you must do the work and always ask for help if you need it!

And finally…

"Math is hard,'' Barbie famously declared. Well, Barbie was right, but math is not uniquely hard. Playing the violin is hard, hitting a baseball is hard, and learning a second language is hard. What seems to make mathematics different from playing the violin or learning Chinese is that the struggle to play violin doesn't make people feel defeated and dumb. Somehow, when we encounter difficulties in mathematics, our natural tendency is to retreat, to think it's too hard, we're not smart enough, or we're not "math people.'' We allow ourselves to be defeated by the difficulty. We understand that learning to play the violin requires making many, many hours of horrible screeching sounds, that learning to speak Chinese means making error after error and not being understood. But, somehow, when it comes to mathematics, we fear making mistakes. We imagine that there are "math people'' to whom it is all transparent and, if it doesn't come to us immediately, we must not be one of them. There are no such people. People who succeed in mathematics, like people who learn a musical instrument or a new language, spend a lot of time not understanding and feeling frustration. **The path to understanding in mathematics necessarily involves, in the words of Steve Klee, being "willing to struggle.''** It is strange that people do not understand this about mathematics when it is commonplace in essentially every other field of human endeavor….

There are dangerous myths in mathematics. One of them is that there exist "math people,'' people to whom it all comes easily and is obvious. People who study the theory of learning are discovering that grit and persistence in the face of difficulty are much more important than any inherent talent in learning mathematics. **Simply believing that study and struggle are more important to learning than innate ability leads (through productive study and struggle) to more learning and more understanding.** There are no "math people,'' mathematical thinking is a fundamental part of every human's intellectual capacity. **The people we label "good at math'' are simply those who have taken the time and trouble to engage the struggle more deeply than others.**

> From the forward to <u>Living Proof – Stories of Resilience Along the Mathematical Journey</u>, produced and distributed by the American Mathematical Society and The Mathematical Association of America.
>
> https://www.maa.org/sites/default/files/pdf/ebooks/pdf/LivingProof_WEB.pdf

Course Calendar

9/7	Expectations and group work
9/12	5.1 and 5.2
9/14	8.2 and 8.6, quiz 1
9/19	8.6 and 8.7
9/21	6.6 , quiz 2
9/26	6.7,
9/28	9.1 and 9.2, exam 1
10/3	9.3, quiz 3
10/5	9.4
10/10	9.5 and 9.6,
10/12	10.1, exam 2
10/17	10.2 and 10.3,
10/19	quiz 4, Final Review
10/24	Final Review
10/27	Final Exam: 5-7pm