

MATH 228.02 – SPRING 2024 (3 credits)
FUNDAMENTAL MATHEMATICAL CONCEPTS FOR ELEMENTARY TEACHERS
TR 11:00 am – 12:15 pm

INSTRUCTOR: Terry Rood

OFFICE: CCC 302A (inside the MathPad)

E-MAIL: trood@uwsp.edu

OFFICE HOURS: 11:00 – 12:30 MWF, 2:00 – 3:00 T, 1:00 – 2:00 R

MATERIALS:

Text: *Mathematics for Elementary Teachers with Activities 5th edition* by Sybilla Beckman

Materials: required: 3-ring binder with loose-leaf paper, calculator (suggested TI-30X)

optional but useful: scissors, colored pens/pencils, hole punch, dividers for folder

OBJECTIVES:

This class will ask you to think mathematically and master concepts which will allow you to become effective teachers.

Topics covered will include the following: teaching and evaluation standards, mathematical reasoning, problem-solving, numeration systems, number theory, and algorithms for operations on numbers.

You will need to go beyond basic concepts; you must be willing to understand the underlying concepts of mathematics so that you are able to communicate mathematics well, both in oral and written form.

GRADING:	Midterm Exam	100	
	Final Exam	100	
	Homework Quizzes	100	4 quizzes- 25 points each
	Homework Projects	50	varied assignments
	Participation/Attendance	50	
	Total	400	

CLASS GRADE: Your final class grade will be determined based on the following percentages.

93 – 100 %	A	83 – 86 %	B	73 – 76 %	C	63 – 66 %	D
90 – 92 %	A–	80 – 82 %	B–	70 – 72 %	C–	60 – 62 %	D–
87 – 89 %	B+	77 – 79 %	C+	67 – 69 %	D+	below 60%	F

EXAMS:

There will be two exams- midterm exam and a final exam.

- **Midterm Exam:** during week 8 or 9
- **Final Exam:** TBA

Missing an exam will result in a 0 unless arrangements have been made **in advance** or a **verifiable emergency** develops just prior to class time (in which case you should contact me as soon as possible). In general, approved make-up tests **MUST** be taken **PRIOR** to the next class meeting.

HOMEWORK:

- **Homework quizzes:** You will be expected to do specific problems from the text or from a handout. These problems will be organized in your binder/on-line folder. Random problems from your class notes, discussions, and homework will be selected and graded using homework quizzes at various times during the semester. You will be able to use your notes/problems in your binder/on-line folder. There will be four homework quizzes worth 25 pts. each.
- **Homework projects:** These will also be given throughout the semester. For example, you could be asked to read an article on a pertinent topic, search for further resources/examples of a concept, or present an example/idea to the class. The point totals on these will be varied and will be announced at the time of the assignment.
- You won't understand every topic immediately; in some cases, you will need to ask questions, seek help from others, and spend more time on the topic. Don't wait to ask for assistance.

ATTENDANCE/PARTICIPATION:

Since a significant amount of material is covered during each class period, it is to your advantage to attend each class. It also is important that you participate in solving problems and contributing to the class discussion. Group work will also be assessed as part of your attendance/participation points grade. This overall participation/attendance grade will be determined using a rubric. This determines 12.5% of your final grade in this class.

CELL PHONES:

Cell phones should not be used in the classroom without the prior consent of the instructor. This class requires a level of focus and an amount of participation that cannot be obtained while you are using your cell phone. In addition, the use of a cell phone during a class is considered unprofessional. **Any type of unprofessional behavior will negatively affect your attendance/participation grade.**

COURSE INTRODUCTION ON CANVAS:

In your **Math 228 Canvas site**, you will find a “**Start Here section:**” It includes the syllabus and tentative schedule, and other useful support links.

There is also a “**UWSP Student Support Resources section.**” This includes the following topics: academic support, technology support, general UWSP support, UWSP emergency procedures, and Canvas support.

Please take the time to read through this material.

Please be respectful of individual choices to wear or not wear a face covering, and to those who have a higher risk of complications.

INCLUSIVITY:

It is my intent that all students from diverse backgrounds and perspectives be well-served by this course, students' learning needs be addressed both in and out of class, and the diversity in this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity. I encourage you to make suggestions to this end. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it using this [link](#). You may also contact the Dean of Students office directly at dos@uwsp.edu.

ACCOMMODATIONS:

Inform Your Instructor of Any Accommodations Needed

UWSP is committed to providing reasonable and appropriate **accommodations** to students with disabilities and temporary impairments. If you have a disability or acquire an impairment or injury during the semester and you need assistance, please contact the Disability Resource Center as soon as possible at 715-346-3365, or at DRC@uwsp.edu. You may also want to visit their website, [Disability Resource Center \(DRC\) - University of Wisconsin-Stevens Point \(uwsp.edu\)](http://DisabilityResourceCenter(DRC)-UniversityofWisconsin-StevensPoint(uwsp.edu)).

ACADEMIC MISCONDUCT:

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 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.

All suspected incidents of academic misconduct shall be handled using the UW System rules, Chapter 14. "Academic misconduct" includes, but is not limited to, the following examples: "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; tampering with the laboratory experiment or computer program of another student. (UWS 14.03)" Further definition of "academic misconduct" can be found in UWS 14.03. UWS 14 is available to all students in the library; additionally, all students received a copy of this policy during their orientation.

MESSAGE FROM YOUR INSTRUCTOR:

I desire to help each one of you become a better, more confident learner and educator of mathematics. This class is intended to be an essential part of your ability to communicate mathematical ideas to your students. As stated in the *Principles and Standards for School Mathematics* (2000):

"Communication is an essential part of mathematics and mathematics education. It is a way of sharing ideas and clarifying understanding... When students are challenged to think and reason about mathematics and to communicate the results of their thinking to others orally or in writing, they learn to be clear and convincing." (p.60)

We will struggle through some concepts; we will make mistakes and try again. We will support each other as we learn that difficulties are a part of mathematical learning. As Albert Einstein once stated:

"Do not worry about your difficulties in mathematics. I can assure you mine are still greater."

Let's not worry, then, about "getting stuck" or "being wrong." This is how your future students will feel at times. We need to model to our students that they need to ask questions, rework problems, and analyze errors. It is a process that will lead to greater understanding for each of us.