MATH 338- SPRING 2023 (3 credits)

FUNDAMENTAL MATHEMATICAL CONCEPTS FOR ELEMENTARY TEACHERS II

Sec. M01 (Marshfield- Room 135) and Sec. W01 (Wausau- Room 218) TR 8:00-9:15 a.m.
Sec. 003 (Main- Room SCI-A212) TR 2:00-3:15 p.m.

INSTRUCTOR: Dee Ann Dewitt
OFFICE: Marshfield- 207A, Main- SCI D260
PHONE: Cell 920-410-6557
E-MAIL: **ddewitt@uwsp.edu**
OFFICE HOURS: TR 9:30-10:30 (Marshfield/Wausau), TR 3:30-4:30 pm (Main) and by appointment for virtual office hours on Zoom

MATERIALS:

Text: *Mathematics for Elementary Teachers with Activities 5th edition* by Sybilla Beckman
Materials: required: calculator (suggested TI-30X), compass, protractor, ruler, colored pencils, scissors, access to a printer
suggested: 3-ring binder with loose-leaf paper, hole punch, dividers for folder, unlined paper

OBJECTIVES:
This class will ask you to think mathematically and master concepts which will allow you to become effective teachers. Students will explore, examine, discuss, and strengthen their understanding of geometry, measurement, algebra, and logic.
Topics covered will include the following: inductive and deductive reasoning, problem-solving, geometric properties, constructions, polygons, polyhedrons, congruence, similarity, symmetry, transformations, perimeter, surface area, volume, Pythagorean Theorem, systems of measurement and conversions, functions, and slope.
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:

Exams	200	**2 exams- Midterm and Final-100 points each**
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

- o **Important Dates for Spring Semester**
- o Last day to add or drop a 16-week course without a grade – Feb 1
- o Spring break begins Friday, March 17 at 6 pm
- o Classes resume – Monday, March 27
- o Last day to drop a 16 wk course – April 7
- o Last day of classes – May 12

EXAMS:

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

- **Midterm Exam**: during **week 8 or 9**
- **Final Exam**: **Sec. 003 (Main Campus) Tuesday, May 16 8:00-10:00 am**
  Sec M01 and W01 (Marshfield, Wausau) Thursday, May 18 10:15-12:15

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).

HOMEWORK:

- **Homework quizzes:** You will be expected to do specific problems from the text or from a handout. These problems will be done on loose- leaf paper/handout and organized in your binder/notebook. You will be asked to submit some problems on Canvas; the completion/incompletion of these problems is part of your participation grade. Then, random problems will be selected and graded on a homework quiz at various times during the semester. On the homework quiz, there will also be questions based on class notes and discussions. You will be able to use only your notes/problems in your binder/notebook. 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, a meet- your- instruction link, the zoom links for class and for office hours, 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.

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 DATC@uwsp.edu. You may also want to visit their website, Disability
Resource Center (DRC) - University of Wisconsin-Stevens Point (uwsp.edu).

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.

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.
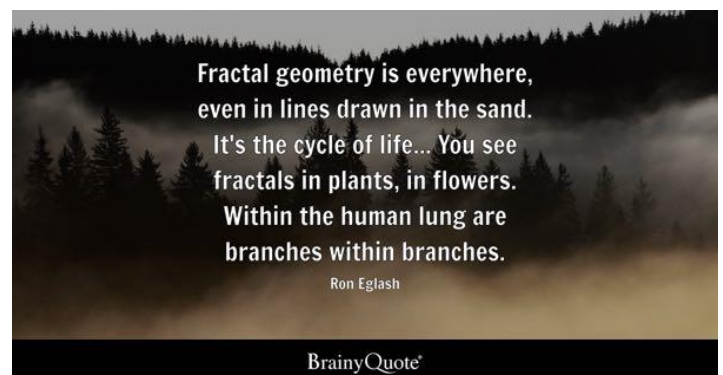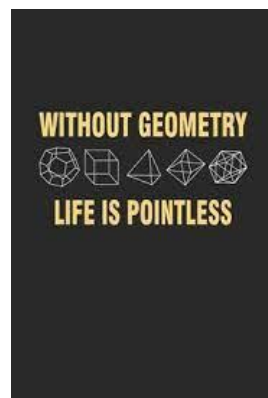
UWSP 14.03 Academic misconduct subject to disciplinary action.

(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.

WITHOUT GEOMETRY LIFE IS POINTLESS

Experience proves that anyone who has studied geometry is infinitely quicker to grasp difficult subjects than one who has not.

Plato

PICTUREQUOTES.com

Fractal geometry is everywhere, even in lines drawn in the sand. It's the cycle of life... You see fractals in plants, in flowers. Within the human lung are branches within branches.

Ron Eglash

BrainyQuote

Wk	DATES	Tentative Schedule: MATH 338 SPRING 2023 TR
Week 1	JAN 24, 26	Overview of Geometry- Mathematical Mindsets/Positive Classroom Norms; Common Core Standards;
	TR	Connections and Communication
Week 2	JAN 31, FEB 2	Inductive and Deductive Reasoning; Problem-Solving
	TR	
Week 3	FEB 7, 9	Patterns/Sequences; The Language of Algebra; Linear Relationships and Constant Rate of Change
	TR	
Week 4	FEB 14, 16	Measurement: Standard Units;Benchmarks; Error and Precision; Conversions with Dimensional Analysis
	TR	
Week 5	FEB 21, 23	Terms, Lines, Angles
	TR	
Week 6	FEB 28, MAR 2	Two-Dimensional Figures: Triangles, Quadralaterals, and other Polygons
	TR	
Week 7	MAR 7, 9	Perimeter and Area of Rectangles; Circumference and Areas of Circles, Areas of Polygons
	TR	
Week 8	MAR 14, 16	Review and Midterm Exam
	TR	
	MAR 18-26	SPRING BREAK
Week 9	MAR 28, 30	Pythagorean Theorem
	TR	
Week 10	APR 4, 6	Solids Figures: Polyhedra, Cyylinders, Pyramids, Cones,Platonic Solids
	TR	
Week 11	APR 11, 13	Solid Shapes- Nets and Surface Area;Volume
	TR	
Week 12	APR 18, 20	Transformations: Reflections, Translations, Rotations; Symmetry
	TR	
Week 13	APR 25, 27	Congruence and Constructions
	TR	
Week 14	MAY 2, 4	Similarity
	TR	
Week 15	MAY 9, 11	Extra topics and Review for Final Exam
	TR	
FINAL	SEC 003	FINAL EXAM - Tuesday, May 16 8:00-10:00 am
	SEC M01, W01	FINAL EXAM - Thursday, May 18 10:15 am-12:15pm

As your instructor, I reserve the right to make changes to the course schedule based on the learning pace of the class

or other unanticipated circumstances. I will communicate any changes to you as soon as they are made.