

Mathematics / Mathematics Education 338 Section 1 and 2
Tentative Syllabus, Spring Fall 2020

Time:

Section 1

T, R 10:00-11:50 am

Section 2

T, R 1:00-2:50 pm

Instructor and Student Hours (online only):

Dr. Senfeng Liang

Email: sliang@uwsp.edu

If you would like to schedule a meeting with me, please [click this link](#) to reserve a time slot 24 hours in advance. Please write **Math338_section number_ your full name** in the subject of the email. For example, it should look like math338_1_Full name. Always use **full official name** in your email (e.g., at the end of an email). **No nick name please!**

Texts:

Bassarear, T. (2012). *Mathematics for Elementary School Teachers* (5th ed.). Belmont, CA: Brooks/Cole. (**Text rental**)

Van de Walle, J.A., Karp, K.S., & Bay-Williams, J. M. (2010). *Elementary and Middle School Mathematics: Teaching Developmentally* (7th ed.). Boston, MA: Pearson. (**Text rental**)

National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: National Council of Teachers of Mathematics. (**It will be posted on Canvas**).

Council of Chief State School Officers & National Governors Association Center for Best Practices. (2010). *Common core state standards for mathematics*. Common Core State Standards Initiative. Retrieved from http://www.corestandards.org/assets/CCSSI_Math%20Standards.pdf. (**It will be posted on Canvas**).

Additional Readings: will be provided as handouts (in electronic version).

Materials: Scientific calculator, compass, protractor, ruler, tape ruler, colored pencils, or crayons or markers.

Other items:

- o A computer
- o A scanner, or a camera, or a smartphone
- o printer (or have access to a printer)
- o a stable internet connection (don't rely on cellular)
- o webcam
- o microphone

Prerequisite: Math/MEd 228 or MED 229

Student Learning Outcomes:

Students will be able to ...

1. examine, explore, discuss, and strengthen their understanding of geometry, measurement, and other related topics so that the content can be taught knowledgeably and confidently. [Note: This requires content to be stretched **beyond** the level typically taught in k – 8 settings.]
2. explore teaching skills of geometry and measurement.
3. prepare, conduct, and reflection their teaching through practicums.

4. get familiar with National Council of Teachers of Mathematics' (NCTM) standards and the Common Core State Standards for Mathematics.

Course Content:

Content for this course includes basic geometric properties, constructions, angles, circles, quadrilaterals, triangles, other polygons, transformations and tessellations, area, volume, surface area, spatial visualization, coordinate geometry, Pythagorean theorem, inductive and deductive reasoning, informal proof, metric and standard measurement and problem solving.

Math education content includes the NCTM process standards, geometry and measurement content standards, the NCTM principles and Common Core standards relating to geometry and measurement.

There will be three practicum experiences and you must participate in all three. Making up a missed practicum is your responsibility and could prove quite difficult.

Tentative Course Requirements:

1 Test/Final:

There will be a midterm and a final. The midterm test and final test dates are provided in the schedule. Details will be provided in the future.

2 Homework and quizzes:

There will be different types of Homework and quizzes.

Part 1: Webassign. Some assignments will be on Webassign. Guide to use WebAssign will be available in another document. Login information (you need this code for WebAssign login):

Very important: make sure to register to the correct section! If your class is the morning 10am class, you are in section 1; if your class is the afternoon 1pm class, you are in section 2.

Course Name: Math 338 - Fall 2020, section 1 Class Key: uwsp 3185 0688

Course Name: Math 338 - Fall 2020, section 2 Class Key: uwsp 5231 4925

Visit this link to register: <https://www.webassign.net/wa-auth/login>

If they ask for your UWSP ID (even though it may be optional), please enter your school ID. Initially you will get about 1-2 weeks' free access to the WebAssign, so **do not buy the code in the first week**, especially if there is a chance you may want to drop off this class. After one week, if you see you are very likely to stay on this course, **then you need to buy the access code from the bookstore on the campus or online** (you may compare the prices yourself). Call the bookstore before you visit them (715-346-3431, University.Store@uwsp.edu); you may be able to buy it via a call. If you used WebAssign before for this course, you may try to use your previous code (but I do not know if it will work). You may also buy Cengage unlimited to get access.

Part 2: homework assignment on Canvas: For each homework assignment on Canvas, use a pen or ballpoint pen to write your name and date on each page. Do not use a pencil to write your name and date.

3 Teaching Practicums

During the course, you will conduct three teaching practicums (to be assigned), including one assessment and two lessons. The lesson plans should demonstrate creativity, knowledge of mathematics, knowledge of mathematics pedagogy, and knowledge of generally accepted pedagogical practices. The lessons plans can be related but

should be essentially different. After you finish the teaching, you will write a reflection of each practicum. More specifics about this activity will be distributed later.

4 Reading comments:

You will be required to read several chapters from the book of Van De Walle et al. and other materials. For each chapter/article you read, you need to write at least five comments, questions or reflections (but not summaries) and review at least three other people's comments (be specific). This activity will enrich discussions of these chapters. Peer reviews like this won't count: "I agree with what you said."

5 Course reflection:

You will be required to write a reflection about what you have learned from this course by the end of this semester.

Note 1: Peer-review of writings. For some assignments you will need to review 1-3 other groups' writings. The reviews will help the authors to write a stronger assignment. The comments should be encouraging, supportive and constructive. Revised writings based on peer-reviews tend to receive higher points than those submitted without any insights from others. We will use google documents. Thus, you need to create a google account. **Fail to complete peer-review will result in losing your points substantially.**

Class Responsibilities

1 Attendance and participation:

We will have several virtual lessons. You should try your best to attend them. If you cannot attend, you should watch the recorded videos (if any) or contact me for extra help. Before each practicum, I will meet each group to discuss your planned materials; at least one person from each group should attend each meeting. I may add more time slots to meet people. Fail to participate in these meetings will result in losing participation points (you will lose one point for each missed meeting, but if you missed all 3 meetings, you will get 0 point for participation and attendance).

2 Conduct:

I will treat you as professionals and I expect the same in return.

3 Late Homework and make-ups:

No late homework will be accepted unless you have an extremely strong reason (such as accidents, emergencies, medical reasons) (The same is true for tests.) If you have such a reason, you must ask me via email for any possible permission. Oral permission is not valid. Moreover, even if your homework is accepted, you may lose points for being late. All written assignments must be submitted on or before the time/date indicated.

4 Academic Integrity:

"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 will be confronted and must accept the consequences of their actions." A description of your rights and responsibilities as a member of the UW-SP community can be found at <http://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx>

Individual assessments, such as individual assignments and exams, must be completed by you alone. Work completed collaboratively must clearly identify all contributors. *When utilizing outside references, all sources must be fully and accurately cited (use APA format).* All essays should be typed, single-spaced with 1" margins on all sides. You must use 12 pt. Times New Roman font. You should learn the APA format at:

<https://owl.english.purdue.edu/owl/section/2/10/>

5 More information of assignments:

Problems from WebAssign tend to emphasize and reward simply by getting the right answer. The written assignments measure your understanding of the methods and other mathematical aspects of the course. Correct

answers are, of course, crucial, but correct answers without supporting work won't count for much here! You need to write clearly! Legible handwritten solutions are critical. Also remember to circle your final answer.

6 Disability Accommodations:

The Americans with Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. Check here for more information:

<http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/ADA/rightsADAPolicyInfo.pdf>

If you have a disability and require classroom and/or exam accommodations, please register with the Disability and Assistive Technology Center and then contact me at the beginning of the course. I am happy to help in any way that I can. For more information, please visit the Disability and Assistive Technology Center, located on the 6th floor of the Learning Resource Center (the Library). You can also find more information here:

<http://www4.uwsp.edu/special/disability/>

7 Religious Beliefs:

Students' sincerely held religious beliefs will be reasonably accommodated with respect to all examinations and other academic requirements. According to UWS 22.03, you must notify the instructor within the first three weeks of classes about specific dates which require accommodation.

8 Policies:

UW-Stevens Point values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, a set of expectations for all students and instructors have been developed. This set of expectations is known as the Rights and Responsibilities document, and it is intended to help establish a positive living and learning environment at UWSP. Check here for more information:

<http://www.uwsp.edu/dos/Documents/CommunityRights.pdf>

ASSESSMENT INDICATORS (tentative)

<i>Tasks</i>	<i>counts</i>	<i>points</i>	<i>notes</i>
Attendance and Participation	N/A	5	individually
Quizzes	Some	5	individually
Midterm	1*100	100	individually
Final	1*150	150	individually
Homework	varies	132	usually individually; the total points will be capped by 132.
Reading comments	3*6	18	2 points for each reading' comments; 1 point for peer-review
Lesson 1 (Assessment)	1*10	10	in pairs
Lesson 1a (Assessment reflection: peers)	1*5	5	individually
Lesson 1b (Assessment reflection: students)	1*5	5	individually
2 Lesson plans	2*15	30	in pairs
2 Lesson reflections	2*15	30	individually
Course reflection	1	10	individually
Total		500	

<i>Letter Grade</i>	<i>Percentage</i>	<i>Letter Grade</i>	<i>Percentage</i>
A	94-100%	C	73-76.99%
A-	90-93.99%	C-	70-72.99%
B+	87-89.99%	D+	67-69.99%
B	83-86.99%	D	60-66.99%

B-	80-82.99%	F	0-59.99%
C+	77-79.99%		

GRADE NOTE:

- If you do not do all three practicums your course letter grade will be F (no matter what grades you get for other parts).**
- The same grade will be assigned for both MATH 338 and MED 338.**

Estimated time needed for this course

University guidelines suggest that students may need to spend 2-3 hours of preparation outside of class for every hour spent in class. MATH338/ MED 338 is essentially a four-credit class, so YOU should expect to spend 8-12 hours each week devoted to studying and preparing assignments for this class besides the regular class hours (i.e., 4 hours per week). If you experience difficulty in meeting or understanding course expectations, please make an appointment to me via email to discuss your issues immediately.

Other resources (The following information was from the Tutoring-Learning Center.)

The Tutoring-Learning Center (TLC) offers free group, drop-in, and individual tutoring to support you in your math classes. The tutors are UWSP students who have done well in their classes and who are here to share their successful study habits and math content knowledge to help others succeed. Discussing mathematical concepts and practicing problems together clarifies and solidifies knowledge, and the tutors are eager to study with you. If you have questions about the schedules or would like to make an appointment, please contact the TLC via email (tlctutor@uwsp.edu) or phone (715-346-3568) for information.

What	Details	Schedule	Cost
Drop-In Tutoring	Via Zoom	https://www.uwsp.edu/tlc/Pages/dropInTutoring.aspx	Free
Group Tutoring	Via Zoom, based on course section	https://www.uwsp.edu/tlc/Pages/schedules.aspx	Free
One-on-One Tutoring	By appointment, via GoBoard. Weekly attendance required.	Complete online request form here: https://www.uwsp.edu/tlc/Pages/request-math-science-tutoring.aspx	Free

IMPORTANT NOTES:

- Except chapters from the Van De Walle textbook, all other reading materials (including NCTM and CCSS, etc.) are available on Canvas.**
- All reading comments are on Canvas.**
- Practicum assessment, lesson plans and reflections need to be submitted on Google AND Canvas.**
- Assignments on are always due 11:59pm on the due date (unless otherwise stated).**
- Grades given during the semester cannot be disputed after one week of receiving the grade.**
- Calculators may or may not be used, depending on the tasks.**
- If you missed all three practicums your course letter grade will be F (no matter what grades you get for other parts).**
- The syllabus is tentative, and I reserve the right to interpret and revise it.**
- If you find any errors or have any questions, please contact me.**