



## University of Wisconsin Stevens Point

**Course description and content:** Math Ed 390 - Explorations in Secondary Mathematics – Spring 2018

Students in this course will deepen their understanding of topics found in the Common Core State Standards for Mathematics (CCSSM) and develop tasks designed to cultivate success and interest in secondary students.

**Class hours:** Monday-Wednesday-Friday @ 11:00 – 11:50AM in SCI A212

**Office hours and contact information:**

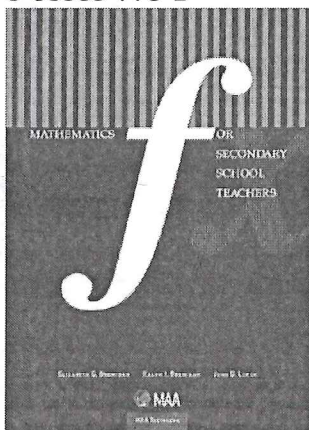
Dr. McCabe, D354 SCI – Monday 2:00 – 2:50PM, Tuesday and Thursday 9:00 – 9:50AM, Wednesday 1:00 – 1:50PM; other times available upon request.

E-mail: [cmccabe@uwsp.edu](mailto:cmccabe@uwsp.edu), Office phone: 715-346-2085

Dr. Kahrs, B333 SCI – Monday 10:00 – 10:50AM & Noon – 12:50PM; Wednesday Noon – 12:50PM & 3:00 – 4:00PM; other times are available upon request. [Note: On Tuesdays and Thursdays I will often be out in the field with the supervision of student teachers but occasionally I will be in my office.] E-mail: [bkahrs@uwsp.edu](mailto:bkahrs@uwsp.edu), Office phone: 715-346-2377

**Class resources:**

- Required text – Mathematics for Secondary School Teachers, E.G. Bremigan, R.J. Bremigan, & J.D. Lorch (2011). Mathematical Association of America (MAA), ISBN: 978-0-88385-773-1



- Common Core State Standards for Mathematics (CCSS): available online - <http://www.corestandards.org/Math/>

### Goals/student outcomes:

- 1) Students will articulate, in an interview, a vision for mathematics curriculum and instruction in their future classroom.
- 2) Students will create a unit plan (a series of 3-5 lessons) that demonstrates engaging instruction that addresses an assigned standard.
- 3) Students will consistently demonstrate a professional practice of reflection.
- 4) Students will develop and demonstrate use of their mathematical power.  
*Mathematical power includes the ability to explore, conjecture, and reason logically; to solve nonroutine problems; to communicate about and through mathematics; and to connect ideas within mathematics and between mathematics and other intellectual activity. Mathematical power also involves the development of personal self-confidence and a disposition to seek, evaluate, and use quantitative and spatial information in solving problems and making decisions. Students' flexibility, perseverance, interest, curiosity, and inventiveness also affect the realization of mathematical power.*

### Policies & Expectations for Students:

- 1) Participation is a critical aspect of this class and constitutes 15% of your final grade. Participation will include three components (attendance, engagement, and effort) that will be monitored and assessed on a weekly basis (10 points for each week).
  - **Attendance:** Students are expected to attend each class session and be on time. Each week students will earn 4 points for attendance. (4 points = in attendance for all class sessions and on time. Students will earn less than 4 points for missing a class session or for unreasonable tardiness.
  - **Engagement:** Students are expected to begin upon arrival to class (this can be working on a warmup or talking with the instructor about assignments or other course considerations). During scheduled class time you should be "on task," listening for understanding and relevance; you should offer ideas and ask questions that clarify or extend ideas. This includes challenging ideas in a respectful fashion. Students will earn up to 3 points per week for engagement (3 pts. – distinguished, 2 pts. – proficient, 1 pt. – weak, 0 pts. – unacceptable).
  - **Effort & attitude:** Students are expected to consistently complete assignments, demonstrate a reasonable level of enthusiasm for the content, respect the entire cohort, be willing to work in a variety of settings (individual, pairs, small, groups, whole class), be organized in a way that shows thought and preparation, and accept feedback in a profession manner. Students will earn up to 3 points per week using the same scheme described for engagement.

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- 2) A grade of incomplete may be given when circumstances arise which are beyond the student's control, and which result in the student being unable to complete the course. A grade of incomplete will only be used if the student is passing the class when the circumstances arise.
- 3) Any work that is turned in should be completely your own work. Even though students will be working in groups often, each individual is responsible for their own work. Cheating/Academic dishonesty can result in failing the course. Students are expected to adhere to the academic integrity guidelines as stated in the UWSP Community Rights & Responsibilities document (Student Academic Standards and Disciplinary Procedures). Complete information can found at the following location:  
<https://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx>
- 4) Make-ups tests will only be given under very special circumstances. Please look the course calendar and plan accordingly.
- 5) Calculators cannot be shared during quizzes and tests.
- 6) Cell phones and computers are a distraction to students and the instructor, please keep these devices silent and out of sight. If there is a situation that requires your attention to a cell phone contact, **please leave the classroom to deal with it.**
- 7) Please prepare for class. Reading the assigned section and completing (or at least a strong attempt with each problem) the assigned problem sets are critical components of success for most students.
- 8) Some writing assignments will be submitted to a dropbox within D2L. They will be checked for plagiarism. Using someone else's work to complete your assignment is cheating.
- 9) **Assignments are due on the date given in the course calendar or daily lesson outline.** These dates may be adjusted in class but only after discussion and notification in class and on D2L. Late work will only be accepted under special circumstances as determined by the instructor. Our D2L course shell, along with daily lesson outlines handed out at the beginning of each class session, will be used often to communicate important course information; please check D2L daily.
- 10) Please communicate with the instructor regarding challenging circumstances ASAP. E-mail is the first way to communicate but some issues are more appropriately handled face-to-face. Please work to make all communication timely.

***An undergraduate student should expect to spend a minimum of 2 hours on this course outside the classroom for every hour in the classroom.***

**Class structure:** My teaching metaphor is that teaching mathematics and helping prospective teachers of mathematics is like being the guide of a mountain expedition. As a class we are scaling a steep peak and I must lead the way. This requires all of us to stick together, each of us to expend effort and keep our eyes on the goal (reaching the peak). Yet, I must lead. This role requires that I sense when to push upward, when to rest, when to look back at what we've accomplished, when to re-fuel/replenish...and to make sure we are all prepared and motivated for the next "adventure." To this end, many class sessions call for an interactive examination of the mathematics which I or Dr. McCabe will lead with discussion/lecture. However, mathematics is not a spectator "sport" which means that since all of us must climb the mountain, we will all be doing mathematics in a manner that emphasizes understanding WHY? Much of our work will emphasize analyzing important mathematical concepts and sharing explanations in order to dig deep into our understanding. I hope that many lessons will include a vision of what the focus of the lesson might look like in an actual classroom. Additionally it is important to realize that on a grand adventure in the mountains sometimes you diverge from the trail to the peak because there is something "you just have to see." I am certain that we will take some divergences and they will be spectacular. (Brad Kahrs, Instructor)

**Disabilities:** If you have a disability, it is your responsibility to contact the Disability and Assistive Technology Center during the first two weeks of classes, and discuss accommodations with the instructor. For more information use the following link:

<http://www.uwsp.edu/disability/Pages/default.aspx>

**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.

**Students' Rights & Responsibilities:** In addition to the policies and expectations listed above please refer to the following link for more information concerning your rights and responsibilities as a UWSP student: <https://www.uwsp.edu/dos/Pages/stu-academic.aspx>

**Grading (components/weighting of grade and scale for assigning final grades):**

Grade component	% of overall grade
Mid-term Exam	15
Participation	15
Reflection, Readings & Writings	15
Unit Plan*	15
Problems/Problem sets	15
Final Culminating activities* -Note the final activities will be made up of 2 components: an interview with an area administrator and a reflective activity during the scheduled Final Exam period.	25

\* - indicates rubric and additional description will be provided

The following scale will be used to assign final grades:

Course Grades at or above	93.3%	90%	86.7%	83.3%	80%	76%	73%	70%	66%	60%
will receive at least a grade of	A	A -	B +	B	B -	C +	C	C -	D +	D

We reserve the right to exercise discretion in raising a student's grade if the final course percentage does not appear to reflect the quality of a student's work. We will not use discretionary judgments to lower a student's course grade.

***\*There will be a tentative course calendar posted and continuously updated on D2L as an addendum to this syllabus.***

