

## MATH330 - Secondary Mathematics Methods

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Times	MWF 3:10-4:00
Start Date	August 20, 2018
Course Credits	3

### I. Required Materials

#### *Software*

We will utilize various digital tools throughout the semester. Most of them are available freely online and I will post links to our Blackboard site.

#### *Textbooks*

Smith, M.S. and Stein, MK. (2018). **Five Practices for Orchestrating Productive Math Discussions, 2<sup>nd</sup> Edition**. National Council of Teachers of Mathematics: Reston VA. You can purchase this directly from [National Council of Teachers of Mathematics](#) for about \$30.

**Principles to Actions**. National Council of Teachers of Mathematics: Reston VA. You can purchase an electronic copy from [NCTM](#) for \$4.99.

Boaler, Jo. (2016). **Mathematical Mindsets: Unleashing Students' Potential Through Creative Math, Inspiring Messages and Innovative Teaching**. Jossey-Bass, San Francisco, CA. You can purchase this from [Amazon](#) for about \$15.

### II. Course Description

This course is intended for students preparing to teach high school or middle school mathematics. It is my goal that you leave this course understanding that teaching mathematics involves not only mathematical understanding but also a willingness and ability to take a vested interest in student thinking. Additionally, I hope you leave understanding that teaching mathematics involves a communication component that is impacted by culture and gender, as well as familiarity with a variety of teaching methods to accommodate many different approaches to learning.

### **III. Course Objectives**

Each of you will be able:

- To create and implement effective pedagogical strategies
- Incorporate collaborative learning and appropriate technology to teach mathematics for understanding
- Design a variety of assessment tools to assess understanding of mathematical concepts
- Connect mathematics to the real world
- Incorporate inclusive teaching strategies
- Acquire knowledge of the state learning goals, the Common Core State Mathematics Standards, and NCTM Principles and Standards.

### **III. Course Requirements**

#### ***Journal Writing***

We will do a variety of reflective writing in journals at various times during the semester. Sometimes the journal entries will be done electronically, sometimes they will be done on paper. Some journal entries will be completed during class, others outside of class. These should be thoughtful reflections to my prompt(s). Occasionally, you will be able to write about wherever your own concerns or excitements take you.

#### ***Professional Development***

This entails attending the Northwest Math Conference and presenting a lesson draft for Math-a-Rama. This is a meeting of about 500-1500 teachers and math educators held each October in Oregon, Washington, or British Columbia on a rotating basis. This fall's conference is in Whistler, British Columbia on October 18-20, 2018. Information about the conference is available at the [conference website](#).

I hope most of you will plan to attend. We are attempting to obtain funding for transportation and hotel but with the budget cuts we may not have any funding. Preservice Teachers of Mathematics (PreToM) will be attempting to obtain a grant to send some of their members as well. We have been awarded a special registration cost that is lower than other students as PreToM is an active participant with the Washington State Math Council. For this portion of your grade you will have to write brief summaries of talks and workshops attended as well as present a draft lesson to participating teachers. Further details will be provided at a later date.

#### ***Alternative Professional Development***

For those who cannot attend the conference in Portland, you will have a research paper that you will write and a short PowerPoint presentation. Details will be provided separately.

### ***Practice Teaching***

*Inland Northwest Math Experience [IN ME]: It's In Me, Is It In You?* We will conduct the 15th Annual *INME* for two days in early November. You will design activities allowing students to discover mathematics with a hands-on focus. As a class we will plan, organize and create the activities to be done. Each of you will commit to co-facilitate four sessions (at least one for each day). You need to attend one lunch and help set up or pack up as well. More details will follow.

### **V. Course Prerequisites**

Certified Mathematics Major, currently in or already completed Math 301 with a grade of C or better, and the intention of becoming a secondary mathematics teacher.

### **VI. Course Links**

Office of Superintendent of Public Instruction WA <http://www.k12.wa.us/>  
Common Core State Standards <http://www.corestandards.org/>  
Washington State Mathematics Council <http://www.washmath.org/>  
Northwest Mathematics Conference 2018 <http://bcamt.ca/nw2018/>  
National Council of Teachers of Mathematics <http://www.nctm.org>

### **VII. Grading Policy**

No late work accepted without prior permission.  
No make-ups on in-class activities without explicit permission.

### ***Grade Breakdown***

A 94 – 100  
A– 90 – 93  
B+ 87 – 89  
B 84 – 86  
B– 80 – 83  
C+ 77 – 79  
C\* 74 – 76 (Minimum Pass Grade)  
C– 70 – 73  
D 60 – 69

### ***Break Down of Percentages***

Projects ----- 40%  
Exams (2) ----- 15% each  
Homework ----- 10%  
Journal Writing ----- 10%  
Participation & Engagement ----- 10%

Rubrics will be provided with major assessments. Work outside of class will vary week-to-week. It may be particularly heavy as we prepare for IN ME and the NW Mathematics Conference but lighter at other times in the semester. On average, you should plan to spend about 3-5 hours working outside of class per week.

### **VIII. Attendance Policy**

Attendance is required and valued. There are many reasons each class is important to attend.

One reason is to allow you to contribute your ideas in discussions and to benefit from the comments of the instructor and your classmates. You will also experience learning in settings that model strategies we discuss. If you cannot make a class (because of illness or another understandable reason), please inform Dr. Hall in advance. Not all in-class work can be made-up, due to the discussions. However, it is your responsibility to find out what you missed and whether there is work you can make up and what homework assignments you need to complete.

Do not come to class if you are sick. You will be allowed two excused absences due to illness. However, if you are out sick and work is due, you should submit it electronically via an email attachment or to Blackboard.

### **IX. Academic Integrity**

I encourage you to work with classmates on assignments. However, each student must turn in original work. No copying will be accepted. Students who violate WSU's Standards of Conduct for Students will receive an F as a final grade in this course, will not have the option to withdraw from the course and will be reported to the Office of the Dean of Students. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions:

<http://www.conduct.wsu.edu/Content/Documents/conduct/09-10%conduct%20booklet.pdf>

#### ***WSU Statement on Academic Integrity***

Academic integrity is the cornerstone of higher education. As such, all members of the university community share responsibility for maintaining and promoting the principles of integrity in all activities, including academic integrity and honest scholarship. Academic integrity will be strongly enforced in this course. Students who violate WSU's Academic Integrity Policy (identified in Washington Administrative Code (WAC) 504-26-010(3) and -404) will fail the course and will not have the option to withdraw from the course pending an appeal, and will be reported to the Office of Student Conduct.

Cheating includes, but is not limited to, plagiarism and unauthorized collaboration as defined in the Standards of Conduct for Students, WAC 504-26-010(3). You need to read and understand all of the definitions of cheating:

<http://app.leg.wa.gov/WAC/default.aspx?cite=504-26-010>. If you have any questions about what is and is not allowed in this course, you should ask course instructors before proceeding.

If you wish to appeal a faculty member's decision relating to academic integrity, please use the form available at [conduct.wsu.edu](http://conduct.wsu.edu).

## **X. Disability Policy**

Students with Disabilities: Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center [Pullman] or Disability Services at Washington Building 217 (509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center or Disability Services. For more information contact a Disability Specialist on your home campus.

## **XI. Miscellaneous**

### ***Respect***

I expect you to treat each other and myself with courtesy and respect. This includes but is not limited to:

- Coming to class prepared to listen and contribute. No cell phone use during class (unless directed otherwise), no browsing the computer, no newspapers, etc. Your attention is on the people in the room. Violations will impact your participation grade.
- Work is turned in on time. If work is due at the beginning of class, you should not be working on it as class starts, it should be ready to turn in.
- For group tasks, do what you have committed to do on time.
- Work hard and have fun.

### ***Classroom Safety Statement***

Classroom and campus safety are of paramount importance at Washington State University, and are the shared responsibility of the entire campus population. WSU urges students to follow the “Alert, Assess, Act,” protocol for all types of emergencies and the “[Run, Hide, Fight](#)” response for an active shooter incident. Remain ALERT (through direct observation or emergency notification), ASSESS your specific situation, and ACT in the most appropriate way to assure your own safety (and the safety of others if you are able).

Please sign up for emergency alerts on your account at MyWSU. For more information on this subject, campus safety, and related topics, please view the [FBI's Run, Hide, Fight video](#) and visit the [WSU safety portal](#).