

## **Intersections of Culture and Mathematics**

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Location	Cdollege Hall 235
Times	TU TH 12-1:15
Start Date	August 22, 2017
Course Credits	3

### **Required Text**

No required text, required readings will be through the internet or pdfs will be emailed or posted in blackboard under content throughout the semester

### **Suggested Text**

- American Psychological Association Style (APA style) for formatting papers and citations. There are free online resources if you do not want to buy the latest version. Just Google APA Style

### **Course Description**

The focus of the course will be an analysis of culture, gender and mathematics. This will include, but not be limited to the role of culture in the development, teaching and learning of mathematics; a study of gender and race/ethnic differences in mathematics and the social consequences for education, factors influencing these differences and cultural inclusion in the classroom.

### **Course Objectives**

- Critically evaluate Privilege and power from different perspectives
- Explore the ways culture effects the development and learning of mathematics.
- Investigate gender and race differences in mathematics and their sociological consequences>li>Examine factors influencing gender and race differences in mathematics and learning styles

- Critically evaluate research on the intersections of gender, race, mathematics and mathematics education
- Understand ways to teach for ALL students of ALL cultures and ethnicity
- Create projects for high school or middle school students that are suitable to overcome issues raised in our readings.

## **Tentative Schedule**

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- Week 1 (Aug 21, 22) Examples of Privilege and Power Standards and the challenges they create for mathematics education
- Week 2 Pedagogy of the Oppressed and What Kids Can do Inc.
- Week 3-4 Presentations of Research
- Week 4-10 Various Readings dealing with Stereotype threats culture, culturally responsive teaching and other successful programs for teaching mathematics to diverse learners
- Week 11 Grad students Poster Presentations
- Week 12-13 Readings
- Week 14-15 Final Projects presented

## **Course Requirements**

**Participation** Each of you will come to class having completed the reading assigned and prepared to participate in discussion.

- **Reflective Writing and Homework** There will be some written reflections for readings and some homework that will be collected.

- **Reading Preparation and Presentation**

- Pairs of students will pick a reading from my list or one they find and obtain approval from Dr. Kim. They will lead the discussion by coming to class with provocative questions to get discussion going. This will not be a lecture about what the presenters took away from the article but an interactive discussion to get all classmates involved in discussion on meaning, implications, what ifs, etc.

- **Research Project** You will have a choice of a topic from a list I provide to research and present to class during weeks 3 and 4. You will be held responsible for locating reliable resources, gathering relevant, pertinent data from them and presenting your findings to class via PowerPoint or other electronic formats. (Description and rubric will be provided)

- **Final Project** During the semester you will be learning about issues in math education and ways to fix or avoid them. You will create a lesson plan for a project to be used in either a middle or high school mathematics or an introductory college mathematics class that is suitable for teaching mathematics in an equitable manner that will help ALL students of ALL cultures and learning styles that promotes a deep understanding of the mathematical content.

- **Poster Presentation** You will create a poster to share your lesson plan (details and rubric will be provided)

- **Course Prerequisites**

All students must be interested in the art and science of teaching mathematics for ALL students. Students must either have instructor approval or junior/senior standing to enroll in 431. Students with graduate student standing enroll in 531. Credit will not be granted for both 431 and 531.

### **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/>  
<http://www.reducingstereotypethreat.org/definition.html>  
National Council of Teachers of Mathematics [www.nctm.org](http://www.nctm.org)

### **Grading Policy**

No late work accepted.  
No make-ups for in-class activities.

Percentage Earned → Corresponding Grade

- [94-100] → A
- [90-94) → A-
- [87-90) → B+
- [84-87) → B
- [80-84) → B-
- [77-80) → C+
- [74-77) → C \*
- [70-74) → C-
- [60-70) → D
- [0-60) → F

\*minimum grade to pass

### **Break Down of Percentages for Math 431:**

- Reading Preparation and Discussion 15%
- Attendance and Participation 15%
- HW and Reflective written work 15%
- Final Project 25%
- Poster Presentation 10%
- Research Project 20%

### **Break Down of Percentages for Math 531:**

- Reading Preparation and Discussion 15%
- Attendance and Participation 15%

- HW and Reflective written work 15%
- Final Project 25% with implementation analysis
- Poster Presentation 10%
- Research Project 20% Rubrics will be provided with major assessments.

### **Attendance Policy**

Attendance is required and valued. You will lose participation points for:

- tardiness
- absences (more than two unexcused)
- off task behavior of any kind including: texting, tweeting, fb etc during class
- off task or disruptive behavior
- lack of participation in discussion or group work

If you are sick please do not come to class and infect us all. You unfortunately will not be able to make up missed group work. However, you should turn in a written reflection of the reading--a form for reading reflection will be posted Blackboard under content. Any homework due must be turned in on time. If you cannot make it to class send via email the hw as a word doc or pdf (no jpegs or tiffs) as **one file** with your name and hw description in the file name.

### **Policy on Written Work**

No late work Accepted and no make-ups allowed.

### **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>

### **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 please bring the paper work to my office where we can discuss your needs in private.

### **Miscellaneous**

#### **Respect:**

- I expect you to treat each other and myself with courtesy and respect. Some of the topics may cause you to feel uncomfortable due to the sensitive nature. Remember not to attack the person but dispute the idea if you disagree. Courtesy also means that you come to class prepared to

listen and contribute, no cell phones, no browsing the computer, no newspapers, etc. Your attention is on the people in the room. Violations will impact your grade severely.

- Work turned in on time at the beginning of class. I will not call for homework. If it is due Monday then you turn it in Monday with no announcement from me.
- When working in groups be responsible for your part and do it on time.
- Work hard and have fun.

**WSU Safety Measures:** Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Please visit <http://safetyplan.wsu.edu> and <http://oem.wsu.edu/emergencies> to access the Campus Safety Plan and emergency information. You should also become familiar with the WSU Alert Site ( <http://alert.wsu.edu> ) where information about emergencies and other issues affecting WSU will be found.