

**MATH 622: Teaching Mathematics in the 21<sup>st</sup> Century**  
**Millersville University, Spring 2021, 3 credits**

**Instructors:** Dr. Tyrone Washington

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Office Hrs: Monday (10-11 and 2-4), Wednesday (1-2), and Friday (10-11)

**Course Description**

The intent of the course, Teaching Mathematics in the 21st Century, is to examine, study, and analyze teaching techniques and alternate approaches to teaching and learning mathematics in the 21st century. Students will experiment with a variety of pedagogies that are more in-line with the way in which 21st century students live rather than how they are often taught. Comparisons of multiple pedagogies (current, past and potential future) will be frequently made and discussed.

**Attendance**

Students are expected to attend all class meetings. Meetings will be via Zoom:

<https://millersville.zoom.us/j/97478411164>

**Grading**

	A	100-93	A-	92-90
B+	B	86-83	B-	82-80
C+	C	76-73	C-	72-70
D+	D	66-63	D-	62-60
	F	59-0		

For all assignments, the highest grade is a 92. Grades above 92 will be earned by those whose material is deemed to be superior. This is not a ranking assessment; multiple students may earn grades above 92.

**Major Evaluation Components**

Assignment Name	Percentage of Final Grade
Technology Activities	5
Module 1	30
Module 1 Presentation	5
Module 2	30
Module 2 Presentation	5
Culturally Relevant Pedagogy Activities	15
Participation	10
<b>TOTAL</b>	<b>100</b>

**Assignments**

1. Technology Activities: Technology is an essential component in most lessons designed to foster mathematical understanding in the 21<sup>st</sup> century. Students will engage in activities using various technology, including but not limited to Desmos, Geogebra, and Google Docs.
2. Module 1 and Module 2: Students will select a pedagogical approach as a focus. They will either develop classroom activities/material or professional development sessions with the approach. Students will need to provide an overview of each module for approval prior to constructing

modules. With each module, students will submit a paper outlining how the module utilizes research and best practices. The modules will be made available for all students in the course via D2L. **Module 1 will be due: March 22, 2021 at 11 pm. Module 2 will be due: April 19, 2021 at 11 pm.**

3. **Module 1 and Module 2 Presentations:** Students will present a brief overview of their modules to the class. **Module 1 Presentation will be March 23, 2021. Module 2 Presentation will be April 20, 2021.**
4. **Culturally Relevant Pedagogy Activities:** We will examine research and best practices involving culturally relevant pedagogy. Students will be assigned activities related to this examination.
5. **Participation:** Students are expected to be active participants in all discussions. This means reading articles prior to class and being ready to engage in (and in some cases lead) meaningful conversations. Discussion boards may be used

### **Students with Learning Disabilities**

Millersville University makes every effort to comply with legal requirements for students with learning disabilities. It is, however, the responsibility of the student with a learning disability, who desires accommodations, to make those expectations known to instructors. I recommend that you make an appointment with me to discuss this matter.

<http://www.millersville.edu/learningservices/>

### **Academic Integrity**

Please refer to your Student Code of Conduct for details. Cheating or other dishonest behavior will result in course withdrawal as well as other disciplinary action.

### **Title IX**

Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment, comply with Title IX of the Education Amendments of 1972, 20 U.S.C. §1681, et seq., and act in accordance with guidance from the Office for Civil Rights, the University requires faculty members to report to the University's Title IX Coordinator incidents of sexual violence shared by students. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report to the person designated in the University Protection of Minors policy incidents of sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred.

Information regarding the reporting of sexual violence, and the resources that are available to victims of sexual violence, is available at <http://www.millersville.edu/socialaq/title-ix-sexual-misconduct/index.php>

**This syllabus subject to change without notice.**