

MATH 613: Mathematics Curriculum Connections (3 CR)

Summer 2023

Section 01—MTWRF 8am-4pm; Wickersham 104

Professor: Dr. Moss

Email: emoss@millersville.edu

Office Hours: By appointment

Check your marauder email account regularly for important class announcements, and check the course D2L page for detailed assignment descriptions. You will turn in most assignments via drop boxes on D2L.

Course Description

This course is designed for graduate level students and will be of particular interest to mathematics teachers of grades 7-12. In this course, we will explore the foundational concepts of the K-6 mathematics curriculum in significant depth while reflecting on ways to build strong connections between this elementary content and the content in the 7-12 curriculum. The goal is for students to see where their teaching fits in the broader scheme of K-12 mathematics education so that they can design instruction that builds on their own students' prior understanding and contributes to a more holistic development for middle and high school mathematics learners. Course assignments may involve presentations, discussions, reading, written exams, papers, problem solving, problem posing, and instructional design.

Attendance and Participation

Students should arrive on time to each class session, and daily attendance is expected (see University Policy on attendance). Students are expected to contact the professor *prior* to class if an absence is unavoidable. Students are expected to actively participate in class discussions and activities, demonstrating that problem sets, course readings, and assignments have been completed thoroughly and thoughtfully. This will provide background for a critical examination of the elementary curriculum.

Missing class with an unexcused absence will result in a 10% final grade deduction for each day missed, plus a score of 0 on the day's reflection journal entry. Each instance of arriving late or leaving early will result in a 5% final grade deduction. In the case of a documented, excused absence, makeup work will be assigned to compensate for missing class time.

Grading

Letter grades will be assigned according to a ten point scale. The minimum percentage needed (i.e., no rounding) to attain each letter grade is as follows:

93%	A	87%	B+	77%	C+	<70%	F
90%	A-	83%	B	73%	C		
		80%	B-	70%	C-		

Special Accommodations

It is Millersville University policy to provide reasonable accommodations to students with disabilities. Please contact Learning Services to discuss your needs: 348 Lyle Hall, 717-872-3178.

Evaluation Components and Descriptions

1. (15%) Pre-Assignments: These assignments—a questionnaire and two reading responses—are due Sunday, June 11th by 11:59pm on D2L.
 - a. (5%) Questionnaire: Please download and type directly on the questionnaire, answering the questions thoroughly and thoughtfully.
 - b. (10%) Reading Responses: Carefully read the two assigned articles. For each article, type up a) notes summarizing key points of the article, b) some initial thoughts about implications for your own teaching, and c) at least 3 questions that you have about the article or the ideas in it. Be thoughtful in your summary, teaching implications, and the questions you generate, but you have an absolute maximum length of 1 page (1-sided!), single-spaced.
2. (50%) Assignments During June 12-16th
 - a. (20%) Reflection Journals: You are responsible for completing one journal entry every class day, M-F, due by 11:59pm. For each entry, discuss a “big idea” in elementary mathematics (this might be a particular math concept or a form of representation) we covered during class time or in the course reading. *Briefly* describe how the big idea was addressed as part of our class, then more thoroughly brainstorm how the idea might be connected to secondary mathematics. Try your best to find a connection to courses you already teach, but if this is not possible, make connections to other secondary math coursework. Reflection journal entries will be turned in via D2L.
 - b. (15%) Reading Responses: Carefully read the three assigned articles. For each article, type up a) notes summarizing key points of the article, b) some initial thoughts about implications for your own teaching, and c) at least 3 questions that you have about the article or the ideas in it. Be thoughtful in your summary, teaching implications, and the questions you generate, but you have an absolute maximum length of 1 page (1-sided!), single-spaced. Reading responses will be turned in via D2L.
 - c. (15%) Presentation: On Friday, June 16th, you and a partner will take around 30 minutes to teach a concept from elementary mathematics (feel free to engage us with problems) and then discuss how you could connect that concept to the teaching of secondary mathematics. Please use slides of some sort for the presentation. I will assign the topic for this presentation.
3. (35%) Post-Assignments
 - a. (15%): Presentation: For this, you will work with a partner to record a 10-15 minute video of you both giving a presentation using slides of some sort. You may choose the topic for this presentation. While it should be similar in content to the in-class presentation, you will not be able to engage classmates in solving problems, so the presentation will necessarily be more didactic in nature. This presentation is due Tuesday, June 20th at 11:59pm on D2L.
 - b. (20%) Discussion Boards: You will be responsible for facilitating a discussion forum on your presentation and for acting as a participant on discussion forums for classmates’ presentations. More details about these assignments and due dates will be given at a later date.

Late assignments (except in rare circumstances) will **not** be accepted without a 10% per-day penalty.

Academic Honesty

The policies of Millersville University regarding academic honesty can be found at <http://muweb.millersville.edu/~govern/sect3/acaddis.html>. Violating the policy will result in a score of 0 for the assignment and be reported to the Associate Provost for Academic Administration. As always, please conduct yourself with integrity and do your own work.

Title IX Statement

Title IX Reporting Requirements and the Faculty member: Millersville University is committed to maintaining a safe education environment for all students. In compliance with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. 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 sexual violence or any other abuse of a students who was, or is, a child (under 18 years of age) when the abuse allegedly occurred to the person. Information about Title IX, resources, and reporting can be found at: <https://www.millersville.edu/titleix/>

I am a Safe Zone Mentor

The Safe Zone program trains University employees to provide support and resources for MU lesbian, gay, bisexual, transgender, queer/questioning, intersex, allies/androgynous/asexual (LGBTQIA) students and employees. This program has been developed to provide easily recognizable staff and faculty who will be available to students or colleagues for support, mentoring and information regarding helpful resources related to LGBTQIA issues.

