

Math 698 Investigating Secondary Mathematics Methodology (2 cr.)

Fall 2022

Instructor: Dr. Tyrone Washington

Email: tyrone.washington@nyu.edu
Office Hours: Monday and Friday 11:00 am to 12:30 pm
Tuesday and Thursday 11:00 am to noon

Course Overview: Participants will investigate mathematics teaching and learning from both teacher and student perspectives. Course participants will engage in mathematical problem solving and in the study of mathematics as the foundation for understanding current curriculum and standards. Lesson planning follows from the consideration of different types of mathematical content, including skills and concepts. Looking specifically at the learning of mathematics and questioning to promote higher-order thinking, this course prepares students for field experiences in secondary mathematics classrooms

Objectives: These are designed to be consistent with the School of Education's Communities of Learners Conceptual Framework. At the conclusion of the course, the mathematics teacher candidates will be able to:

- x Demonstrate good written
- x Demonstrate an ability to establish instructional goals and select tasks that allow students opportunities to construct their own mathematical knowledge,
- x Demonstrate an understanding of ways to build procedural fluency from conceptual understanding,
- x Demonstrate professionalism in all interactions with peers, school colleagues and students,
- x Design lesson plans which promote the learning of the conceptual knowledge of mathematical ideas (versus procedural knowledge) in the secondary mathematics

ATL Reflections	30%
Homework	20%
Task Analysis Assignment	10%
Final Lesson Plan	20%
Papers	20%

Analyzing Teaching and Learning (ATL) Reflections: Several times throughout the semester, you will respond to ATL prompts from the text. You are to prepare and submit a response in essay form. These will be graded according to thoroughness, depth of thought, and evidence-based justification of your ideas. I expect careful attention to grammar and spelling.

Homework: I expect you to thoroughly and thoughtfully complete all assigned readings prior to the class period in which they are "due." You can expect weekly homework assignments that may include—but are not limited to—reading, viewing videos, meeting person or

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/>

Title IX: Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to comply with the requirements of Title IX of the Education Amendments of 1972 and the University's commitment to offering supportive measures in accordance with the new regulations issued under Title IX, 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](#) sexual violence or any other abuse of a student who was, or is, a child (a person*