

SED 4800M - Mathematics Methods for Adolescent and Young Adult Learners

Fall 2026 Syllabus, Section 01, CRN 40889,

Credit hours: 3

Instructor

Mason Martuccio

Email: mmartuccio@ysu.edu

Public Instructor Information

Instructor Title: Mr. Mason Martuccio

Instructor Professional Qualifications:

- Ph.D. (currently pursuing), Mathematics Education, Kent State University
- M.A., Applied Mathematics, Kent State University
- B.S., Mathematics, Youngstown State University

Instructor Office Location: Cafaro Hall 616 & BC0E 2420

Instructor Office Phone: (330) 941-3308 (Cafaro Hall Phone)

Course Description

4800M. Mathematics Methods for Adolescent and Young Adult Learners. Exploring and demonstrating reflective teaching methods for adolescent learning of mathematics: planning instruction, execution of teaching/learning activities, multiple representations of mathematical concepts, problem-solving strategies, authentic assessment, manipulative materials, mathematical communication, purposeful use of instructional technology, classroom management for effective teaching. Field hours required. Prereq.: TELS Upper Division Status and SED 3706. Coreq.: EDFN 3710. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Fall 2026 Handout Packet		
Optional	The math teacher's toolbox.	Wong, B. & Bukalow L.	
Optional	The understanding by design guide to creating high- quality units.	Wiggins, G. & McTighe, J.	
Optional	The common core mathematics companion: The standards decoded, high school.	Martin, W.G., Dillon, F.L., Strutchens, M.E. & Conway, B.M.	
Optional	The common core mathematics companion: The standards decoded, grades 6 - 8.	Miles, R.H. & Willians, L.A.	
Optional	The common core mathematics companion: The standards decoded, grades 3-5	Gojak, L. & Miles, R.	
Optional	Success from the start: Your first years teaching secondary mathematics.	Wieman, R. & Arbaugh, F.	

The required text will be posted on Blackboard and handed out in class.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Tue	8/25	BB Materials	Introduction to course; Math Activity; Standards: NCTM, Common Core, and Ohio	
Thu	8/27	BB Materials	Standards for Mathematical Practice; Conceptual vs. Procedural Understanding; Pre-Test	
Tue	9/1	BB Materials	Affect; Assign Pre-Test Analysis	
Thu	9/3	BB Materials	Creating Math Group Activities/Productive Struggle; Assign Activity Handout; Guest Speaker: Dr. Beaver	
Tue	9/8	BB Materials	Technology; Assign Technology Portfolio	
Thu	9/10	BB Materials	PD Opportunity - No class	Pretest Analysis
Tue	9/15	BB Materials	Ohio 2017 Standard Grades 7 & 8 and High School; Assign Standards Analysis	
Thu	9/17	BB Materials	Mathematical Knowledge for Teaching (MKT); Select Mini-Lesson Topic	Activity Handout
Tue	9/22	BB Materials	Checking for Student Understanding; Differentiation	
Thu	9/24	BB Materials	Lesson Planning, Rubrics, and Assessments	Standards Analysis
Tue	9/29	BB Materials	Standards Analysis Presentations	
Thu	10/1	BB Materials	Mini-Lesson Plan Workshop	
Tue	10/6	BB Materials	Mini-Lesson Plan Presentations	Mini-Lesson Plans
Thu	10/8		No class - OCTM Conference	
Tue	10/13	BB Materials	Technology Portfolio Workshop	
Thu	10/15	BB Materials	Literature and Writing in Math	Technology Portfolio
Tue	10/20	BB Materials	Technology/Manipulative Presentations	
Thu	10/22	BB Materials	Discuss Unit, Unit Overview, Video and Assessment Analysis	Contextual Factors
Tue	10/27	BB Materials	Field Experience	
Thu	10/29	BB Materials	Field Experience	Single Plan
Tue	11/3	BB Materials	Field Experience	
Thu	11/5	BB Materials	Field Experience	Unit Draft
Tue	11/10	BB Materials	Field Experience	
Thu	11/12	BB Materials	Field Experience	Unit Plan
Tue	11/17	BB Materials	Field Experience	
Thu	11/19	BB Materials	Field Experience	
Tue	11/24	BB Materials	Field Experience	
Thu	11/26		Thanksgiving	
Tue	12/1	BB Materials	Discuss field and video	Unit Assessment Assignment
Thu	12/3	BB Materials	Discuss field and video	Video Reflection
Tue	12/8			PD log

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.