

ELIS 4802 - Teaching Math and Science in Grades 3-5

Fall 2026 Syllabus, Section 02, CRN 41925,

Credit hours: 4

Instructor

Marianne James

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Public Instructor Information

Instructor Title: Dr. Bre Beaver

Instructor Professional Qualifications:

Ph.D., Curriculum & Instruction: Science Education, Kent State University, 2023

P.B.A.C.C., American Meteorological Society DataStreme, California University of Pennsylvania, 2019

M.S., Environmental Science, Youngstown State University, 2017

B.S., Secondary Education Integrated Sciences, Youngstown State University, 2016

Instructor Office Location: BCOE 2210

Instructor Office Phone: 330-941-7230

Instructor Title: Mr. 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: BCOE 2420, Cafaro Hall 616

Instructor Office Phone: 330-941-3308

Course Description

4802. Teaching Math and Science in Grades 3-5. Candidates focus on identifying and modeling developmentally appropriate strategies used for problem solving, communicating, and reasoning in math and science. Candidates create effective learning environments using content-specific pedagogy to make connections to stimulate students' development of math and science concepts and skills in diverse grades 3-5 classrooms. Field hours required. Prereq.: TELS Upper Division Status, ELIS 3701, ELIS 3702, ELIS 3703, ELIS 3704. Coreq.: ELIS 4800, ELIS 4801, ELIS 4803, ELIS 4804. 4 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	Teaching mathematics to students with learning disabilities	Bley, N.S.	
Optional	The common core mathematics companion: The standards decoded, grades 3-5	Gojak, L. & Miles, R.	
Optional	Picture-Perfect STEM Lessons, 3-5: Using Children's Books to Inspire STEM Learning.	Morgan, E. & Ansberry, K	

Optional

Mathematics Content and Activities O'Mellan, A. C.
for PreK – Grade 5 Teachers

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
Wed	8/26	BB Materials BB Materials	Review over syllabus Math Group Activity Science - Draw a Scientist Guided Obs Directions Math - Pre-Test + Standards Science - Pre-Test + NSTA resources	
Fri	8/28	BB Materials	Math - Technology/Manipulatives Science - Inquiry + 5Es	
Wed	9/2	BB Materials	Math - Technology/Manipulatives Science - Inquiry + 5Es	MA & SC PT Analysis
Fri	9/4	BB Materials	Lesson Planning & Objectives	
Wed	9/9	BB Materials		
Fri	9/11	BB Materials	Math - Academic Language + Productive Struggle/Groupwork Science - Academic Language + STEM Pres	SC: STEM Pres (Mon)
Wed	9/16	BB Materials		MA & SC Ideas
Fri	9/18	BB Materials	Math - MKT Science - Finish STEM Pres	
Wed	9/23	BB Materials		Technology Portfolio
Fri	9/25	BB Materials	Math - Motivation Science - NOS	
Wed	9/30	BB Materials		MA & SC Single Plans
Fri	10/2	BB Materials	Math - Topic of Choice Science - Culture and Science	
Wed	10/7	BB Materials		
Fri	10/9	BB Materials	Lesson Plan Workshop	
Wed	10/14	BB Materials		MA & SC Second Single Plans
Fri	10/16	BB Materials	SPED Review	
Wed	10/21	BB Materials		
Fri	10/23	BB Materials		
Wed	10/28	BB Materials	Asynch - Math, Science & SPED	MA & SC Guided Obs
Fri	10/30	BB Materials		
Wed	11/4	BB Materials	Asynch - Math, Science & SPED	
Fri	11/6	BB Materials		
Wed	11/11	BB Materials	Asynch - Math, Science & SPED	SPED Activity
Fri	11/13	BB Materials		
Wed	11/18	BB Materials	Asynch - Math, Science & SPED	Khan assignments
Fri	11/20		Thanksgiving Week	
Wed	11/25		Thanksgiving Week	
Wed	12/2		Asynch - Math, Science & SPED	Reflections (SPED and GE)

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.