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

Fall 2026 Syllabus, Section 03, CRN 42283,

Credit hours: 4

Instructor

Breanna Beaver

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Mason Martuccio

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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 for PreK – Grade 5 Teachers	O'Mellan, A. C.

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	Review over syllabus Math Group Activity Science - Draw a Scientist	
Thu	8/27	BB Materials	Guided Obs Directions Math - Pre-Test + Standards Science - Pre-Test + NSTA resources	
Tue	9/1	BB Materials	Math - Technology/Manipulatives Science - Inquiry + 5Es	
Thu	9/3	BB Materials	Math - Technology/Manipulatives Science - Inquiry + 5Es	MA & SC PT Analysis
Tue	9/8	BB Materials	Lesson Planning & Objectives	
Thu	9/10	BB Materials		
Tue	9/15	BB Materials	Math - Academic Language + Productive Struggle/Groupwork Science - Academic Language + STEM Pres	SC: STEM Pres (Mon)
Thu	9/17	BB Materials		MA & SC Ideas
Tue	9/22	BB Materials	Math - MKT Science - Finish STEM Pres	
Thu	9/24	BB Materials		Technology Portfolio
Tue	9/29	BB Materials	Math - Motivation Science - NOS	
Thu	10/1	BB Materials		MA & SC Single Plans
Tue	10/6	BB Materials	Math - Topic of Choice Science - Culture and Science	
Thu	10/8	BB Materials		
Tue	10/13	BB Materials	Lesson Plan Workshop	
Thu	10/15	BB Materials		MA & SC Second Single Plans
Tue	10/20	BB Materials	SPED Review	
Thu	10/22	BB Materials		
Tue	10/27	BB Materials		
Thu	10/29	BB Materials	Asynch - Math, Science & SPED	MA & SC Guided Obs
Tue	11/3	BB Materials		
Thu	11/5	BB Materials	Asynch - Math, Science & SPED	
Tue	11/10	BB Materials		
Thu	11/12	BB Materials	Asynch - Math, Science & SPED	SPED Activity
Tue	11/17	BB Materials		
Thu	11/19	BB Materials	Asynch - Math, Science & SPED	Khan assignments
Tue	11/24		Thanksgiving Week	
Thu	11/26		Thanksgiving Week	
Thu	12/3		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.