



EDEL 428
Mathematics Methods I for Grades K-6
Fall 2020

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Statement of Purpose: The fundamental role of Western Carolina University is to develop a community of scholarship in which students, faculty, administrators, and staff members learn and apply the products of learning. The School of Education and Allied Professions fulfills this mission by providing students the opportunity to practice educational decision-making. The guiding principle for all instruction in The School is the belief that the best educational decisions are made after adequate reflection and after considering the interests and welfare of the persons affected by the decision.

CEAP Conceptual Framework: "The mission of the professional education programs at Western Carolina University is to prepare highly effective and ethical graduates that are **inspired** to be lifelong learners, **engaged** in the community, and empowered to become leaders who strive to **transform** the future."

Multicultural/Diversity Focus: The EDEL 428 course encourages and provides practice with the use of developmentally appropriate strategies for the teaching of mathematics to provide a successful, inviting, learning environment for all students including those with cultural, ethnic, and socioeconomic diversities and for students with exceptionalities. Because few resource rooms exist in Jamaican schools to address the needs of students with mild disabilities (learning disabilities, ADHD, poor readers, etc.) general education teachers are faced with addressing the needs of a diverse group of students with multiple learning and emotional needs. This course focuses on students with mild-moderate disabilities and how their learning can be accommodated in a general classroom environment through effective teaching practices and differentiating instruction. Students will be expected implement strategies discussed in class and report to the class the benefits and/or difficulties encountered when implementing a particular strategy with their students. The final evaluation for the class will include a question related specifically to whether the information presented during the course was 'relevant to Jamaican schools'

Course Catalog Description: EDEL 428 - Mathematics Methods 1 for Grades K-6
The development of mathematical concepts: program, methods, and materials for number sense and algebraic reasoning for grades K-6.

Text: *Mathematical Mindsets: Unleashing Students' Potential through Creative Math, Inspiring Messages and Innovative Teaching 1st Edition.* Jo Boaler; Jossey-Bass (ISBN-13: 978-0470894521 ISBN-10: 0470894520).

Specific Learning Objectives: At the conclusion of the course, the student will have the mathematical knowledge for teaching [an understanding of mathematics content, the way children think about and learn mathematics, and the knowledge and understanding of the best practices in mathematics education (Thames, Ball, 2010)] necessary in order to:

1. Plan and implement developmentally appropriate mathematics instruction/activities in the areas of number sense and algebraic concepts for all students in grades K-6;
2. Plan and implement critical thinking/problem solving experiences for all students in grades K-6;

- Serve as a role model to facilitate students in grades K-6 learning, appreciation, understanding, and enjoyment of mathematics.

Course Assignments:

- Attend and participate in all classes.
- Read and complete all text and article assignments.
- Develop lesson plans and discuss activities and ideas for teaching specific concepts in mathematics.
- Participate in class activities/discussions.

EDEL 428 Explanation of Assignments Fall 2020

Evaluation:

	Percent
Mathematical Autobiography	15%
Mindset Reflection	25%
Classwork and participation	30%
Number talks homework	10%
Lesson plan	20%

Mathematical Autobiography

Students will write (12 pt/double-spaced) an autobiography introducing themselves and their relationship with mathematics over their school career. The paper will include any “get to know you” type information the student would like to share, mathematics background/courses taken K-12 and college , areas of strength, areas of need, and disposition toward mathematics. **The purpose of this assignment is for the student to reflect on and assess their prior experiences with, knowledge of, and dispositions toward mathematics.** The assignment will be graded by the rubric available on BlackBoard (50 points):

Mindset Journal Reflection

You will read Jo Boaler’s book Mathematical Mindsets. There are discussion prompts for each chapter. Your responses to these are due to BlackBoard in two parts: Chapters 1, 2, & 6 during the first half of class; then Chapters 7, 8, 9 will be done towards the end of our course. We will refer to this book at some points during class modules.

Number Talks

Students will observe a Number Talk (2014) lesson and write a reflection. **The purposes of this assignment include observing and reflecting on the teaching/learning/assessing of mathematics concepts in number sense. You will watch the number talk in within one module.** This assignment will be graded by the following (50 points for the reflection): Identify the number concept being assessed, Identify choices you think the teacher made prior to the number talk, Identify choices you think the teacher made during the number talk, What did you learn (about teaching/learning/assessing/students) by observing the number talk? What questions did the observation raise for you?

Classwork and participation: You are expected to be present and participate in all class sessions. Much of the classtime will be spent engaging in mathematical tasks as learners and then working through those tasks from a teaching perspective. At times you will be asked to work in groups and share your thinking with the whole class. Most times this will be informal. Other times you will be asked to complete and turn in specific tasks.

Tentative Schedule:

EDEL 428 Fall 2020			
Date	Topic	Reading	Due
Online Assignments Prior to Face to Face Sessions			
September 21- 27 th	Myself as a learner of mathematics Introduction to Growth Mindsets	Mathematical Autobiography Assignment on BlackBoard Mindset chapters 1,2, 6	Mathematical Autobiography due October 7 th via BlackBoard (11:59 PM) Take the mindset survey ; Mindset reflection on chapters 1, 2, 6 due October 13 th via BlackBoard
September 28 th - October 4 th	What it means to learn and teach mathematics Teaching High Leverage Practices	A Reflection Framework for Teaching Mathematics Orchestrating Discussions	
October 5 th - 11 th	Early Number Sense Operation Sense: whole numbers		
October 12 th -18 th	Place Value		
October 19 th -25 th	Number Sense and Operation Sense: Decimals Number talks in action		Number talks script due to BB by October 25 th
October 26 th - November 1 st	Planning Mathematics Instruction	Lesson Plan Assignment on BlackBoard	
November 2 nd -8 th	Number Sense: Fractions		
November 9 th -15 th	Operation Sense: Fractions		
November 16 th – 22 nd	Proportional Reasoning and Algebra		Mindset reflection on chapters 7, 8, 9 due to BB November 22 nd
November 23 rd - 30 th	Tracking, Assessment, and Teaching for a Growth Mindset		Lesson Plan Due to BB November 25 th

Evaluation:

A	= 94-100%
A-	= 90-93%
B+	= 87-89%
B	= 84-86%
A-	= 80-83%
C+	= 77-79%
C	= 74-76%
B-	= 70-73%
D+	= 67-69%
D	= 64-66%

Participation and Attendance Policy: Students are expected to attend all classes and actively participate in class discussions and activities. Collaborative learning in class activities are planned throughout the course and can't be made up if missed. More than 2 absences will constitute a failing grade for the course or. Coming to class late 3 times will drop your grade one letter grade. If at all possible, students should notify the instructor PRIOR to their absence.

Civil Discourse at Western Carolina: Consistent with WCU's core values and our campus creed, the WCU community accepts the freedoms and responsibilities of our shared community. WCU encourages all to clearly express their own views while at the same time seeking to understand the varieties of style, identity, and opinion that are held in any diverse community. In order for us to sustain a learning environment that promotes and values freedom of expression, we have a shared charge to accept personal responsibility for our actions, reactions, and speech, while seeking to learn from the actions, reactions, and speech of others.

Academic Integrity Policy and Reporting Process:

This policy addresses academic integrity violations of undergraduate and graduate students.

Students, faculty, staff, and administrators of Western Carolina University (WCU) strive to achieve the highest standards of scholarship and integrity. Any violation of the Academic Integrity Policy is a serious offense because it threatens the quality of scholarship and undermines the integrity of the community. While academic in scope, any violation of this policy is by nature, a violation of the Code of Student Conduct (Code) and will be addressed as outlined in that document. If the charge occurs close to the end of an academic semester or term or in the event of the reasonable need of either party for additional time to gather information timelines may be extended at the discretion of the appropriate academic Dean. Instructors have the right to determine the appropriate academic sanctions for violations of the Academic Integrity Policy within their courses, up to and including a final grade of "F" in the course in which the violation occurs.

Definitions:

Cheating – Using, or attempting to use, unauthorized materials, information, or study aids in any academic exercise.

Fabrication – Creating and/or falsifying information or citation in any academic exercise.

Plagiarism – Representing the words or ideas of someone else as one's own in any academic exercise.

Facilitation – Helping or attempting to help someone to commit a violation of the Academic Integrity Policy in any academic exercise (e.g. allowing another person to copy information during an examination).

Undergraduate and Graduate Academic Integrity Process:

Additional information is available on the Student Success website under Student Community Ethics:

<http://www.wcu.edu/experience/dean-of-students/academic-integrity.aspx>

Accommodations for Students with Disabilities:

Western Carolina University is committed to providing equal educational opportunities for students with documented disabilities and/or medical conditions. Students who require reasonable accommodations must identify themselves as having a disability and/or medical condition and provide current diagnostic documentation to the Office of Accessibility Resources. All information is confidential. Please contact the Office of Accessibility Resources at (828) 227-3886 or stop by Suite 135 Killian Annex for an appointment (<http://accessibility.wcu.edu>).

Student Resources:

Tutoring for Distance Students:

For distance students (including students at Biltmore Park) who cannot attend tutoring sessions in the Writing and Learning Commons (WaLC) or the WCU Math Tutoring Center, tutoring support is available through Brainfuse HelpNow: <https://www.wcu.edu/apply/distance-online-programs/current-students/tutoring-support.aspx>.

Hunter Library:

Hunter Library provides students with access to group and individual study spaces and to thousands of information resources: print and electronic books, newspapers, and scholarly journal articles.

These resources can be searched online and often accessed there (<http://www.wcu.edu/hunter-library>) or library staff and subject specialists skilled in their specific disciplines can be contacted via the library's research guides (<http://researchguides.wcu.edu/>).

Blackboard Support:

Students are expected to take responsibility for becoming familiar with the technical skills and requirements necessary for researching and presenting their ideas and supporting a successful learning experience.

The learning management system for this class is Blackboard and can be found at <http://wcu.blackboard.com>

NOTE: Blackboard will be unavailable from May 28, 2019 at noon to May 31 at 5 p.m. Check the Academic Calendar for specific date as well the Blackboard login and Home pages.

Additional help with Blackboard can be found at help.wcu.edu, (828) 227-7487 or by visiting the Technology Commons located on the ground floor of the Hunter Library.

Academic Toolbox:

The Academic Toolbox is available in all WCU courses via the course Blackboard site. It can be found in the left-hand side column. The Academic Toolbox contains information and contact information for nearly all of the resources needed by WCU students, including but not limited to: technology assistance, academic services, student support, co-curricular programs and university policies.

Course Evaluation:

Please help us to improve our instruction. These evaluations will take minutes to complete and are used to improve on our program offerings. The evaluations are anonymous and your instructor will only see an aggregated score AFTER grades have been submitted.