



## Graduate Course Syllabus

### EDU 503C: Methods of Teaching Elementary Mathematics

Center: Online

#### Course Prerequisites

Must be enrolled in the Teacher Certification Program

#### Course Description

This course focuses on the concepts of mathematics that are taught in grades K–6 and the current methods of teaching that content, including experience with manipulative materials. TCP acceptance is required.

#### Course Outcomes

- Identify characteristics of developmentally appropriate mathematics
- Develop learning activities in mathematics based on academic standards
- Create and demonstrate a lesson plan using the constructivist approach to learning mathematics
- Use diagnostic assessments to inform, design, and implement instruction
- Engage families by providing resources that enable them to support their child's learning in mathematics
- Use a variety of manipulatives to model mathematical concepts and operations
- Incorporate the use of children's literature in mathematics instruction
- Demonstrate effective strategies for mathematical concepts and operations

#### Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, [MBS Direct](#), rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

#### *Elementary and Middle School Mathematics: Teaching Developmentally*

John A. Van de Walle, Karen S. Karp, and Jennifer M. Bay-Williams

Pearson

10th Edition

2019

ISBN: 978-0-134-80208-4

#### *Uncovering Student Thinking in Mathematics, Grades K–5*

Cheryl Rose Tobey and Leslie G. Minton (Eds.)

Corwin Press

*SNHU Math Manipulative Tool Kit*

The SNHU Math Manipulative Tool Kit is a collection of physical objects that help both new and experienced teachers introduce math concepts in the classroom.

**Instructor Availability and Response Time**

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours.

**Grade Distribution**

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	6	35	210
Blog Discussions	7	20	140
Journal	1 (5 entries)	80	80
Presentations	2	40	80
Short Papers	2	30	60
Literature Lesson Plan	1	30	30
Critical Task			
Milestone One	1	50	50
Milestone Two	1	50	50
Milestone Three	1	50	50
Milestone Four	1	50	50
Final Submission	1	200	200
			<b>Total Course Points: 1,000</b>

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

## University Grading System: Graduate

Grade	Numerical Equivalent	Points
A	93–100	4.00
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3.00
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2.00
F	0–72	0.00
I	Incomplete	
IF	Incomplete/Failure *	
W	Withdrawn	

\* Please refer to the [policy page](#) for information on the incomplete grade process.

### Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

### Chalk and Wire

The Developmental Capture: Educational Philosophy Paper must be submitted to Chalk & Wire for assessment. These items will be used as files for the Professional ePortfolio when completing the degree program. For additional information and instructions for accessing, creating a portfolio, and submitting an assignment to Chalk & Wire, please visit the [School of Education Portal](#) and click on “CW for Students” on the left-hand side of the page. With questions regarding Chalk & Wire, please contact the SNHU Instructional Support Helpdesk, available on mySNHU.

NOTE: All final projects must be submitted to the Chalk & Wire system. Students who do not submit their final project to Chalk & Wire will receive a grade of 0.

### Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student’s local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Constructivism in Mathematics <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 1 and 2 1-1 Discussion: Common Core and Mathematics 1-2 Module One Short Paper: Article Review 1-3 Review: Critical Task
2	Planning in the Problem-Based Classroom and Math Tools <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 3 and 4 2-1 Blog Discussion: Problem-Based Planning 2-2 Blog Discussion: Manipulatives 2-3 Presentation: Manipulatives 2-4 Continue Work: Critical Task
3	Using Formative Assessments and Differentiation <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 5 and 6 <i>Uncovering Student Thinking in Mathematics, Grades K–5</i> , Chapters 1 and 2 3-1 Discussion: Formative Assessment Probes 3-2 Module Three Short Paper: Differentiation and Assessment 3-3 Critical Task Milestone One: QUEST Cycle Report 3-4 Continue Work: Critical Task
4	Number Sense, Measurement, and Literature <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 8 and 19 4-1 Blog Discussion: Early Number Sense 4-2 Discussion: Measurement and Literature 4-3 Literature Lesson Plan 4-4 Continue Work: Critical Task
5	Base Ten Concepts and Place Value <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapter 11, Chapter 13, pp. 289-297 and Chapter 17, pg. 418 (Estimating Products) 5-1 Discussion: Base-Ten Concepts 5-2 Math Journal: Base-Ten Activity 5-3 Developmental Capture: Lesson Plan Chalk & Wire Submission (Milestone Two) 5-3 Developmental Capture: Lesson Plan Submission
6	Meaning of Operations and Fact Fluency <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 9 and 10 6-1 Presentation: Meanings of Operations 6-2 Blog Discussion: Website for Parents 6-3 Continue Work: Critical Task

Module	Topics and Assignments
7	Whole Number Computation and Computational Estimation <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 12 and 13 7-1 Discussion: Computation Strategies 7-2 Math Journal: Computation Activity 7-3 Field Experience: Field Experience Reflection (10 Hours) Chalk & Wire Submission (Milestone Three) 7-3 Field Experience: Field Experience Reflection (10 Hours) Submission
8	Algebraic and Geometric Thinking Concepts <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 14, 20, and 23 8-1 Blog Discussion: Functions 8-2 Blog Discussion: Webquest 8-3 Math Journal: Geometry Activity 8-4 Critical Task: Milestone Four
9	Fractions, Decimals, and Percents <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 15, 16, and 17 9-1 Discussion: Fractions, Decimals, and Percents 9-2 Math Journal: Fractions Activity 9-3 Critical Task: Formative Assessment Probe Chalk & Wire Submission 9-3 Critical Task: Formative Assessment Probe Submission
10	Data Analysis and Probability <i>Elementary and Middle School Mathematics: Teaching Developmentally</i> , Chapters 21 and 22 10-1 Blog Discussion: Statistics and Probability 10-2 Math Journal: Data Analysis Activity

### Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a posting to the graded assignment/discussion during the first week of class, the student is automatically withdrawn from the course for non-participation. Review the [full attendance policy](#).

### Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the [full late assignment policy](#).

### SNHU Student Handbook

Review the [student handbook](#).

### ADA/504 Compliance Statement

In accordance with Section 504 of the Rehabilitation Act of 1973, Title III of the Americans with Disabilities Act (ADA) of 1990, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008, Southern New Hampshire University does not discriminate on the basis of disability, including intellectual disability, in admission,

treatment, or access to its programs or activities, nor does it discriminate in employment in its programs or activities.

The university prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. A disability is a condition or impairment that impacts a “major life activity” or “major bodily function.”

- **Major life activities** include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working.
- **Major bodily functions** include, but are not limited to, functions of the immune system, normal cell growth, and digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions. Disabilities include physical, medical (including pregnancy), mental health, and learning needs.

At the beginning of each term, or as soon as you become aware of a disability or accessibility concern, we encourage you to contact the Online Accessibility Center (OAC) to discuss accommodations for which you may be qualified. Reasonable accommodations are established through an interactive process between the student and the OAC.

Note that accommodations are not retroactive and that disability accommodations are not provided until acceptable documentation of a disability and its impact is received and an accommodation letter has been processed. If you are unsure whether your condition qualifies as a disability or accessibility concern, please contact the OAC for determination.

**Contact Information:**

Online Accessibility Center

Phone: 866-305-9430

Email: [oad@snhu.edu](mailto:oad@snhu.edu)

**For questions concerning support services, documentation guidelines, or general disability issues, please visit the [Online Accessibility Center](#) website.**

If you feel you have been denied appropriate disability-related accommodations, including appropriate auxiliary aids and services, you may file a grievance as described in the ADA/504 Grievance Policy found on the [Disability and Accessibility Services](#) website.

**Academic Honesty Policy**

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the [full academic honesty policy](#).

**Copyright Policy**

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the [full copyright policy](#).

**SNHU Withdrawal Policy**

Review the [full withdrawal policy](#).

**Southern New Hampshire University Policies**

More information about SNHU policies can be found on the [policy page](#).

**Student Work Samples**

For the purpose of continuous improvement of our educational training, Southern New Hampshire University may, on occasion, utilize anonymous student work samples for internal professional development and staff training. If you would like to withdraw permission for use of your work, please complete the [Student Work Sample Survey](#).