



EDU 3250: EFFECTIVELY TEACHING MATHEMATICS IN ELEMENTARY/MIDDLE SCHOOL

Instructor: Nina F. Weisling, Ph.D.

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Office Hours: before/after class; TR 10 am -12 pm; W 2:00 – 3:00 pm; R 4:00 – 5:00 pm; *by request*

Class Meeting Times: [W 09:15-11:35AM](#) (*plus clinical hours)

Class Location: LH 222 /online as needed



Course Description

This course is designed to provide elementary/middle school preservice teachers with knowledge of the development sequence of mathematical knowledge and fluency in the pedagogical concepts and skills needed for student success. The focus of this course is on the content, methods of teaching, and the curricula as taught at elementary and middle school levels. A wide range of teaching and learning experiences will be demonstrated and practiced. The course experiences include collaborating with the instructor and cooperating teachers who are involved in our partnerships with local schools in planning, implementing, and evaluating classroom mathematics instruction. Field experience required. Prerequisite: Admission to the Teacher Education Program Fall/Spring (Carthage Catalog).

Course Texts

Van de Walle, J. A., Karp, K., Bay-Williams, J. M., & Wray, J. A. (2019). *Elementary and middle school mathematics: Teaching developmentally* (Tenth edition). Boston: Pearson.

Some of the specific standards we will address in this course are listed below.

Course Outcomes	InTASC Standards	Mathematics for Equity	Carthage SLO
<ul style="list-style-type: none"> • Foundations: What is modern mathematics and from where did it develop? What is numeracy? What are/How do we cultivate mathematical mindsets? • Learners: ? What is the role of identity in learning math and how does identity impact math learning and engagement? How do children develop conceptual understanding, procedural fluency, and mathematical reasoning/problem-solving? • Instructional Design: How do we create lessons to effectively guide deep student thinking and encourage multiple pathways? How can we <i>actively engage</i> students in relevant and meaningful real-world learning experiences? • Environment: How can we establish and maintain a learning environment that encourages and supports all students' learning? • Assessment for Learning: How can we effectively obtain, interpret, and utilize evidence of student <i>growth</i>, celebrating multiple pathways? • Professional Learning: How can we use evidence to evaluate and change teaching practices? 	#1 Learner Development #2 Learner Difference #3 Learner Environment #4 Content Knowledge #5 Application of Content #6 Assessment #7 Planning for Instruction #8 Instructional Strategies	<i>Coming soon</i>	-Disciplinary expertise -Diverse approaches to knowledge

“Don’t let anyone rob you of your imagination, your creativity, or your curiosity. It’s your place in the world; it’s your life. Go on and do all you can with it, and make it the life you want to live. ” ~ Mae Jemison

Major Course Assignments: To give you chances to practice and show what you are learning (as well as to model effective practices and build your teacher toolkits!) we will engage in a wide range of different types of assignments. Each assignment will be reviewed and/or modeled in class and have a 1-page handout distributed in-class and available on Schoology.

Assignments		% of Final Grade
INDIVIDUAL	Math Identity Reflections: At various points across the semester, students will be asked to engage in critical reflections on their own math identity, their students’ math identity, and what these mean for them as future teachers.	10%
GROUPS	Choice - Opening/Closing Routine//Representative Read Aloud: Groups will design, facilitate, and create a “cheat sheet” for <i>either an</i> opening/closing math routines or a read aloud that is reflective of their “class”. Each group should select a unique routine/activity/read aloud that is related to course content and their “class”.	10%
PAIRS/ TRIADS	Choice- Webinars: Students will complete <i>at least two</i> NCTM webinars (https://www.nctm.org/online-learning/Webinars/List?status=recording) related to high quality mathematics instruction and access, identity, and/or equity.	10%
INDIVIDUAL	(Mini) Lessons (2): Students will each design and teach a CCSS-driven mathematical lesson incorporating conceptual, procedural fluency, and problem-solving, as well as principles of Universal Design for Learning and responding to whole group, small group, and individual student needs. Each lesson <i>must</i> include at least one visual support (e.g. anchor chart, multiplication table, etc.) and one manipulative (e.g. bead bars, fraction bars, rekenrek, etc.). Students will submit a reflection on their own performance.	1 st : 10% 2 nd : 20%
INDIVIDUAL	Weekly Readings: Each week students will complete their choice of task: online quizzes, Sketchnotes, or other notes.	20%
VARIED	In-class Participation: Discussions, in-class work; reflexive activities, etc.	20%

Grading Scale

Scale	Rule	Scale	Rule	Scale	Rule
A+	98-100	A	93-97	A-	90-92
B+	88-89	B	83-87	B-	80-82
C+	78-79	C	73-77	C-	70-72
D+	68-69	D	63-67	D-	60-62

1. Materials are selected to reflect a range of perspectives and voices.
2. Learning activities and assignments are designed to have real-world application that prepares you for your future work as teachers and allows you multiple pathways to explore and show what you know/are learning.
3. Grades are earned by *showing your learning* NOT by doing the work the “right” way.

Learning Accessibility: We *all* learn in different ways and are more/less successful depending on our learning circumstances. ***I am committed to your success and am prepared to make accommodations.*** The Carthage **Director of Learning Accessibility** offers a variety of services and accommodations to students based on appropriate documentation, nature of disability, and academic need. At the start of the semester, students should (1) meet with **Diane Schowalter, Director of Learning Accessibility, in Hedberg Library (x5802; dschowalter1@carthage.edu)** to discuss reasonable accommodation and (2) communicate with individual faculty members from whom accommodations are sought as soon as possible.

“I don’t have to be fearful about my grade, because if I am working the best I can with this material, I know it’s going to be reflected in my grade.” - bell hooks

Policies & Supports

Attendance & Work Completion: Your contributions - ideas, experiences, interpretations – are valuable and enrich all of our understanding. Coming to class and being well-prepared is critical to your (and your peers'!) learning. In-class activities are designed assuming you've done the readings and are ready to apply them in discussion, role plays, etc. In addition to our face-to-face class meetings, you can expect to spend 2-3 hours each week engaged in additional work for class (e.g. readings, assignments, writing, group work, etc.). Also:

*All **assignments** are due, completed, by the assigned deadline (even if you are absent).* However, life happens. If you know you are going to need additional time on an assignment, please obtain approval from the instructor *prior* to the due date. There is **NO** shame in asking for an extension! Late work *without* prior permission will be subjected to a deduction for every day it is late.

Please come to every class on time and prepared. If you are ill, suspect you've been exposed to COVID, or have an emergency that requires you to **miss class** or the field, please (a) communicate with your instructor (email and text) and your cooperating teacher/carpool as relevant to (b) make every effort to attend class online. *After the first absence*, you will be asked to provide an annotation of all assigned readings, and may be asked to complete additional make-up work.

Finally, if there is ever anything going on in your life that is interfering with your ability to keep up with class, please reach out to me. You need share only what you feel comfortable with, but alerting me will help me support you better. *You are not in this alone!*

Academic Success and Health: Good health can help you achieve academic success. The Health and Counseling Center (HCC) supports students by addressing physical, mental, and emotional well-being. All services are available to full-time, undergrads and are free, confidential, and provided by experienced and licensed professionals.

TARC 2240 | 262-551-5710 | More info - including appointments: carthage.edu/health-counseling.

Mon-Fri 8:00am-4:00pm

Health Services are available to students during walk-in hours or appointment (M-F, 8:30am-1:00pm) for assessment and treatment of minor illness/injury. *Nurse Practitioners* from Weds 2pm-4pm. Diagnostic testing, complimentary over-the-counter medications, and referrals to off-campus providers are available.

Counseling Services are available by appointment and during walk-in hours (M-F, 11:30am-1:00pm). Students see counselors to discuss a wide variety of topics: depression, anxiety, relationship concerns, stress management, indecision about a major or career path, and academic concerns. HCC also supports students who are feeling suicidal or who are in crisis. *HCC is a Title IX confidential resource for students.*

Suicide Prevention Lifeline: 1-800-273-8255 / Emotional Support TEXT Line: Text "HOPELINE" to 741741

NAMI Non-Emergency Line: 1-800-448-3000 or look to <https://www.nami.org/find-support/nami-helpline>

[Uwill](http://Uwill.com) is a free teletherapy platform for Carthage students. Access is quick and easy: app.uwill.com.

The [Writing Center](#) (Hedberg Library 213B), is a free resource for students in all classes, staffed by undergraduate Writing Fellows who have been recommended by Carthage faculty. They are trained to work with other students on all stages of the writing process (understanding the assignment, brainstorming ideas, drafting, revising, and proofreading), live or virtual, through written feedback, and in-person consultations.

Tutoring and/or Academic Coaching is available to assist you with any aspect of the class, including understanding readings, preparing for quizzes, and more. These resources are *for everyone* to maximize their potential. Please take advantage of them. For information or to book a one-on-one appointment visit carthage.edu/tutoring

Your Peers: Your peers can be a tremendous source of support, especially if you are unclear on something OR you are absent from class. Find at least three peers with whom you can exchange contact!

1. _____
2. _____
3. _____

Office Hours: These are optional windows of time when you can meet with me to discuss our course or other related topics of interest or concern. I welcome you to come alone or in small groups. YOU are expected to drive the “agenda” so come prepared! I have specific hours posted, but we can also set up appointments for other times.

Reasons to come to office hours:

- One-on-one interactions/individualized support can lead to higher achievement (Kim & Lundberg, 2016).
- You need clarification or have questions about the course syllabus, assignments, rubrics, feedback, grades, course content; you can get personalized support or work through an issue or concern.
- Get tips and strategies for studying and/or completing assignments.

Ways to maximize your office hours visit:

- Review materials (readings, handouts, notes, syllabus, Schoology) and talk to peers to ensure your concern has not been addressed elsewhere.
- Where possible, have specific questions prepared; come with what you need (syllabus, computer, etc.)
- Where possible, set up an appointment and be on time (text/email if you are late/need to cancel/ reschedule).
- Be honest and brave! This session is *all about helping you be successful*. Ask all your questions!
- Be prepared to answer questions – to help uncover the root of your concern and/or help understand where you got “stuck,” I will often answer your question with a question! In addition, I may ask you questions to help you think differently and/or to ensure you have what you need to be successful.
- At the end, summarize what we discussed to make sure we have a shared understanding of next steps.

Tech Tips: In addition to posting *all* non-text readings and assignments on Schoology, this class uses Google Drive *through* Schoology for several major and minor assignments. To maximize success I recommend:

- Using Chrome to access Schoology or work on your Drive assignments for this class (when possible).
- Syncing Schoology to Drive early: <https://support.schoology.com/hc/en-us/articles/201001883-How-do-I-use-the-Google-Drive-Resource-App>
- Technology Help: Hedberg Library Information Desk (help@carthage.edu) or 262-551-5950.
- If you are able, please *always* bring headphones & your computer to in-person classes.

Mask Policy: While there are multiple perspectives on masking, at the end of the day, teaching is a “helping profession” and our peers, students, and colleagues *deserve to feel/be safe*. As such, **masks are required any time you are in this classroom or a school placement. No exceptions.** If you attempt to attend class or a school placement without a mask, you will not be allowed entry, will lose relevant points/hours, and be subjected to a departmental dispositions review.

(Some of) What You Can Expect From Me:

- Respond to emails, texts, calls within 24-48 hours (text is preferred)
- Opportunities and an open invitation to provide anonymous feedback *that I will actively respond to and incorporate into my teaching practices*
- Regularly updated calendar and Schoology pages
- Availability to hear you out and support you
- Grade and return work within 1-2 weeks*

“All sorts of things can happen when you’re open to new ideas and playing around with things.”
~Stephanie Kwolek