

Teaching Middle School Mathematics Math 323, 4 credits, Fall 2016

Instructor: Dr. Teri Willard

Meeting Time: 3:00 – 4:15, M & W
20 (25 better) hours
assigned field experience

Office: Bouillon 107E

Meeting Place: Hertz 120

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Office Hours: 11:00 to 11:50 am, M – F
(additional by appointment)

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(Email is my preferred method of
communication.)

1st Important Notice: Admission to and continuation in the *Middle Level Math Program* requires that you purchase LiveText. You must present “proof of purchase” to the Certification Office, Black 228.

2nd Important Notice: You must have your background check and fingerprinting done before you can work in classrooms! You MUST work in a classroom this quarter. If you have done this in the past, check that your materials are current/not expired.

3rd Important Notice: Check your email regularly for latest class information! Documents/templates you need will be posted on Canvas.

4th Important Notice: You are required to spend time in classrooms outside of the meeting time of the class. Please be prepared to organize your schedule accordingly. Schools we will work at meet between 7:30 am and 4 pm. For most of you, you will need to attend an orientation at the assigned school. This is mandatory.

Course Description: Teacher candidates will use research-based best practices to plan, teach, and assess lessons aligned with the CCSS-Math in middle school classrooms.

Prerequisites: Prerequisites: admission to the middle-level math major Teacher Certification Program, and current WSP/FBI fingerprint clearance.

Course Rationale: To meet the expectations for mathematics teachers, a shift in content, instructional and assessment practices is crucial. The *Curriculum and Evaluation Standards for School Mathematics* (NCTM, 2000) outlines the specific changes needed in pre-service mathematics education. “The experiences that mathematics teachers have while learning mathematics have a powerful impact on the education they provide their students.” (NCTM) To become an effective mathematics teacher, you must learn a variety of teaching strategies including discovery, experiments, cooperative learning, and technology, in addition to direct instruction. Therefore, you as students need to experience mathematics instruction in a way that will influence you positively as a teacher. This course employs the constructivist model of learning in which you will, with your interactions with your physical and social environments, individually construct and socially co-construct knowledge.

Course Materials:

- 1) *Teaching Student-Centered Mathematics, Grades 6 – 8, Volume 3, Second Edition*. Vandewalle.
- 2) 3-ring binder – bring to every class meeting. It should contain handouts we will be referring to, for example the edTPA Handbook. This binder is not graded, but you must be able to refer to materials we are covering during the class period.
- 3) Create a student Canvas account so that you may access information for this course.
- 4) Purchase a LiveText account for creating your Middle Level Math Portfolio. (<http://livetext.com>)
- 5) Access the National Council of Teachers of Mathematics (NCTM) website for viewing the Curriculum and Evaluation Standards for School Mathematics and the Professional Standards for School Mathematics (<http://www.nctm.org> – you can sign up for a free 90-day membership to view these documents or you can join).
- 6) Access to the Common Core Standards for mathematics at <http://www.corestandards.org/math> .
- 7) Supplies – a graphing calculator, paper, graph paper, binder, some dividers, several paper portfolios for turning in course assignments

Learner Outcomes and Assessment Strategies: You will demonstrate your ability to perform the following outcomes through the assigned assessments. You will:

Outcomes	Assessment/Artifact	Standards
Explain what effective mathematics teaching is and how students learn mathematics.	lesson plans, learning progression, practice edTPA, field experience, class activities, portfolio	CTL 1
Plan for instruction and assessment. Demonstrate this by describing your plans for the learning segment and by explaining how your instruction is appropriate for the students you are teaching.	lesson plans, learning progression, practice edTPA, field experience, class activities	CTL 1 WAC V
Develop effective lessons to instruct and engage students in learning aligned to the CCSS Mathematics Standards. Demonstrate this by reflecting on your instruction and by the assessments made by their field supervisor.	lesson plans, learning progression, practice edTPA, field experience, class activities, portfolio	CTL 1 WAC V
Identify the language demands required by the mathematics lessons you plan. Directly teach both language function and vocabulary in a manner that develops mathematical understanding.	lesson plans, learning progression, practice edTPA, field experience, class activities, portfolio	CTL 1 WAC V
Develop a unit plan that uses multiple instructional methods aligned to the CCSS Mathematics Standards.	lesson plans, learning progression, practice edTPA, field experience, class activities, portfolio	CTL 1 WAC V
Demonstrate knowledge of Common Core mathematics standards and Washington mathematics standards.	lesson plans, learning progression, practice edTPA, field experience, class activities, portfolio	CTL 1 WAC V

Assessment and Evaluation Guidelines:

The instructional and assessment strategies are designed to inform you of your progress in achieving the performance outcomes.

Assessment*

Assignments	Due Dates	Points
1. Attendance in the CWU classroom: There will be ONE free day allowed , $18 - 1 = 17$ days required and a percent of 17 will be used to find your score out of 60. individual grade	Every class meeting date	60
2. Daily Grades: This category may include presentations, short papers, and other assigned participation. If an unannounced activity is given in class and you are absent, there are no make-ups allowed for any reason. ONE low grade will be dropped before the end-of-quarter points are assigned by finding a percent of total number of points given for these assignments. group & individual grades	In specific class periods given on calendar or unannounced	25
3. Leading a Class Discussion: This assignment consists of leading a group discussion and presenting important points for an assigned chapter from the textbook. group grade	Dates given on sign-up sheet	25
4. Textbook Quizzes: Six 10-point quizzes will be on Ch. 4 – 11. No quiz scores will be dropped. individual grade	Dates given on class calendar	60
5. Lesson Plans (3): In the official edTPA this is referred to as the “ learning segment ” and may consist of up to 5 lessons. These lesson plans will be sequential for the learning progression (#6) and practice edTPA (#7). The mathematics topic must be from Chapters 8–11 in our textbook only. You may produce the plans yourself or work with one partner. There will be one concept, one procedure, and one lesson specifically designed for problem-solving. Drafts will be required. Late/unprofessional drafts will result in deduction from final 90-point score. individual or partner grade	Dates given on class calendar	90
6. Learning Progression – This progression is based upon your lesson plans (learning segment) in #5 . You will be preparing this based upon the lessons, be they individual or partner. Your document must look different than your partners. individual grade	Dates given on class calendar	60
7. Practice edTPA – Completion of practice edTPA sections – Context for Learning, Planning Commentary; Instruction Commentary – Rubrics 1 – 10 used to score; You will be preparing this based upon the learning segment (#5), whether this is individual or partner. Your practice edTPA must look different than your partner’s. (learning segment) and learning progression; There will be a draft due with late/unprofessional drafts resulting in deduction from final 60-point score. individual grade	Dates given on class calendar	60
8. Field Experience – Middle school classroom helping, tutoring, etc. – 20 hours minimum (Accumulating 25 for this quarter will better help you meet overall requirement). If you are short in your time, points will be deducted proportionally. This will be documented both on paper and electronically. You may or may not teach a lesson in your assigned class. individual grade	Dates as scheduled individually	100
9. Portfolio – Completion of LiveText Math Portfolio entries – on time for full credit, after deadline = 0 points. individual grade. (<i>This portfolio must be completed to pass the course.</i>)	Dec. 5 - NOON FIRM	50

10. Professional Growth Plan: individual grade	Nov. 30 – 5 pm	20
11. Variable Math Night Grade(s): We may be participating in 1–2 Math Nights. With a partner, you will prepare an activity, attend, and “man your booth!” If there are 2 Math Nights, you can use the same activity, altered for grade level as needed. group grade	Dates are unknown. 0, 25, or 50 points	0 – 50 points
12. Professionalism –See below for details. individual grade	Due every day!	50
Total Points	600 – 650	TBA

* Complete descriptions of the assignments and/or rubrics for grading the assignments will be handed out at appropriate times.

Grading: Grades will be determined by the following percents:

93-	90-	87-	83-	80-	77-	73-	70-	67-	63-	60-	<60%
100%	92%	89%	86%	82%	79%	76%	72%	69%	66%	62%	
A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

Professionalism:

Remember you will be working with students at area schools. As a teaching professional you must be dressed professionally, be on time, and be well-prepared. It is very important to be at a school before classes start, unless a class schedule is in conflict. Your professionalism will be assessed by your university instructor and classroom teachers, as appropriate. Remember that your behavior is a reflection on Central Washington University. All of us in the education field depend upon area schools and teachers for support. Please make positive contributions so we can maintain a great relationship with area schools and teachers. For more information, refer to the handout with subject “Student Observations in the Field” and to guideline sheets given by each school.

When you finish your field experience, write a thank-you card/note to your cooperating teacher and the school principal. Building bridges and strengthening networks in the field of education is important to your future.

In addition to behavior while representing CWU, professionalism also consists of submitting work on time for Math 323. If you are consistently submitting late, incomplete, or work demonstrating poor effort, your grade in this category will suffer, as determined by your instructor.

Schedule/Rules:

The class calendar is subject to change, but will be our tentative guideline for the course. If you miss a class, it is **your responsibility** to find out what was covered, announced, or assigned. In case of emergencies, it is **your responsibility** to contact the instructor as soon as possible.

How to succeed:

Take the responsibility for your own achievement. If you have questions regarding any of the assignments, clarify with the instructor. Be organized and complete all assignments early. Prepare a schedule for yourself in completing the course requirements. The requirements for this class demand hard work, critical thinking, and efficient use of your time. **If you fall behind, your grade will suffer and you may not be able to keep up and complete the course.**

ADA Statement:

Students with disabilities who wish to set up academic adjustments in this class should give me a copy of their “Confirmation of Eligibility for Academic Adjustments” from the Disability Support Services Office as soon as possible so we can meet to discuss how the approved adjustments will be implemented in this class. Students with disabilities without this form should contact the Disability Support Services Office, Bouillon 205 or dssrecept@cwu.edu or 963-2171 immediately.