

# Teaching Middle School Mathematics

## Math 323, 4 credits, Winter 2015

Instructor: Dr. Teri Willard

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

Office: Bouillon 114

Meeting Place: Hertz 120

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(additional by appointment)

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**1<sup>st</sup> 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.

**2<sup>nd</sup> 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.

**3<sup>rd</sup> Important Notice:** Check your email regularly for latest class information!

**4<sup>th</sup> 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 for this course are designed to inform you of your progress in achieving the performance outcomes.

### **Assessment\***

<b>Assignments</b>	<b>Due Dates</b>	<b>Points</b>
<b>1. Attendance</b> in the CWU classroom; <b>ONE free day ONLY allowed, <math>(16 - 1) \times 4 = 60</math></b>	In specific class period	<b>60</b>
<b>2. Daily Grades</b> – quizzes, presentations, any type of assigned participation; If an unannounced activity is given in class and you are absent, there are no make-ups allowed for any reason. <b>ONE low grade will be dropped before the end-of-quarter points are assigned.</b>	In specific class period	<b>60</b>
<b>3. Lesson Plans (3)</b> – sequential for the practice edTPA (#5); Drafts will be required. Late/unprofessional drafts will result in deduction from final grade. In the edTPA this is referred to as the “learning segment” and may consist of up to 5 lessons. You will do three.	January 20 January 29 See calendar.	<b>90</b>
<b>4. Learning Progression</b> – You will be preparing this progression based upon your lesson plans (learning segment) in <b>3</b> .	February 9 February 17 See calendar.	<b>50</b>
<b>5. Practice edTPA</b> – Completion of practice edTPA sections – Context for Learning, Planning Commentary; Rubrics 1 – 5 used to score; based upon your lesson plans (learning segment) and learning progression; There will be a draft due with late/unprofessional drafts resulting in deduction from final grade.	January 26 February 23 March 5 See calendar.	<b>60</b>
<b>6. Field Experience</b> – Middle school classroom observation, tutoring, teaching a lesson – 25 hours minimum at your assigned school, 50 minute class = 1 hour; If you are short in your time, points will be deducted proportionally. This will be document both on paper and electronically.	March 12 See calendar.	<b>100</b>
<b>7. Portfolio</b> – Completion of LiveText Math Portfolio entries – on time for full credit, after deadline = 0 points <i>(This portfolio must be completed to pass the course.)</i>	March 17, Noon See calendar.	<b>50</b>
<b>8. Professional Growth Plan</b>	March 9 See calendar.	<b>30</b>
<b>9. Professionalism</b> – discretion of instructor/classroom teachers	Due every day!	<b>50</b>
<b>Total Points</b>		<b>550</b>

\* 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. Your professionalism will be assessed by your university instructors and classroom teachers, as appropriate. (See #9 in assessment table.) 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.

### **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 instructors as soon as possible. Recall also that attendance is part of your grade in this course. If a course deadline is missed, assessment alternatives are left up to the discretion of the instructor.

### **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](mailto:dssrecept@cwu.edu) or 963-2171 immediately.