

**MATH 396 SYLLABUS: FALL 2014**  
**ELEMENTARY PROBLEM SOLVING**  
**MF 11-11:50am; W 10-11:50am MNB 103**

Professor: Dr. Cheryl Beaver  
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Final Exam: Monday December 8, 2014 10-11:50 am

<b>OFFICE HOURS &amp; SCHEDULE</b>					
<b>Time</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
8			MTH 212		
9	MTH 212	MTH 212	MTH 212		MTH 212
10	<i>Office</i>	<i>Office</i>	MTH 396		<i>Office</i>
11	MTH 396	Meeting	MTH 396		MTH 396
12		MTH 211	<i>Office</i>		
1	MTH 211	MTH 211	MTH 211		MTH 211
2	Meeting	<i>Office</i>			
3		Meeting			
4		Meeting			

Please feel free to drop by my office during my office hours for help. You do not need to make an appointment to come to office hours. At times other than my listed office hours you are welcome and encouraged to call or email me with questions about the course. If you have direct scheduling conflicts with my office hours and would like further help, please let me know.

**PREREQUISITES**

Math 211, 212 & 213; each with a grade of C- or better.

**REQUIRED COURSE MATERIALS**

- “Crossing the River with Dogs: Problem Solving for College Students, 2<sup>nd</sup> Edition” by Ken Johnson, Ted Herr, and Judy Kysh (ISBN: 9780470464731)
- Coursepack: The Math 396 coursepack is available for purchase at the bookstore.

**COURSE CONTENT**

This course is designed for students planning to be elementary or middle school teachers. Our goals for this term are to:

- Improve problem solving skills by building upon and extending knowledge acquired in the foundational sequence;
- Become proficient in using problem solving rubrics;
- Use a “Math Buddy” journal interface to experience reading, replying, and evaluating young problem solvers' solutions.

**CLASS WEB PAGE**

There will be a link for the Math 396 webpage on my home page <http://www.wou.edu/~beaverc/> where assignments and due dates will be posted. Bookmark this page and check it often!

**ATTENDANCE**

Attendance is required and strictly enforced in Math 396. As described in the “Course Structure” section below, critical activities and experiences will happen during class that cannot be made up. If you miss class due to illness, please contact your professor by phone or email, before or on the day you miss class to see if you can make up some

class work. If you need to miss class for a University Sanctioned absence (sports, performances, etc.), please visit your professor during office hours well in advance of the absence to set up a plan to make up missed work and experiences.

Missed class grade deductions (% deduction from earned class total %)		
Absence type	Deduction	Requirements
University Sanctioned	-0%	Arranged in advance if possible or emergency verified after; work made up to satisfaction of professor per given deadline
	-1% / class day	Not arranged in advance if possible; work made up to satisfaction of professor per given deadline OR arranged in advance, but work not made up satisfactorily
Illness	-0%	Professor contacted day of illness and work made up to satisfaction of professor per given deadline
	-1% / class day	Professor not contacted day of illness or work not made up to satisfaction of professor per given deadline
Unexcused	-1%	First day
	-2% / class day	After first unexcused day in term

## COURSE STRUCTURE

There are two main components in Math 396: The Math Buddies Project and Problem Solving.

### MATH BUDDIES PROJECT

WOU Mathematics and Ash Creek Elementary School (ACES) are partners for the “Math Buddy” problem solving mentoring project. WOU students will be partnered with children from ACES and will learn to respond to and help move forward children’s problem solving and problem writing skills.

**Assignments** Assignments for this project will include scoring student work using the official Oregon State Mathematics Problem Scoring Guide and writing mentor letters to the students. Many assignments will involve working online in our class google drive. It is recommended that you complete all such assignments early to allow time for technology glitches that sometimes occur. All buddy assignments are on a tight schedule and late work will receive significant score reduction so plan ahead.

**Participation** Many of our classes will be focused on our Math Buddies Project. It is critical to attend these sessions and work is generally difficult to make up. If you must miss due to an emergency, the best thing to do is contact the professor and make the work up immediately. Because this work will directly affect actual school children, if you miss class or deadlines, your work may be reassigned to someone else and you will receive 0 points on any such assignment.

**Math Buddy Fun Fair Dec. 3<sup>rd</sup>** During our Wednesday, Dec. 3<sup>rd</sup> class we will host our ACES Math Buddies for a “Fun Fair”. You will get to meet your buddies and plan fun math activities for them. More information will be given about this later in the term. Attendance is mandatory.

### PROBLEM SOLVING

Many of our classes will be focused on interactive problem solving sessions; please bring your coursepack to class every day. Your participation in class problem solving is crucial and required in this course. We will regularly explore new ideas during class and it will be difficult to make this work up on your own. Many of the items in the course pack do not stand alone; they need introductory comments and supportive questions that will be presented in class. All students will be expected to enthusiastically engage in group work and in

whole class sharing discussions (including sharing work at the board or document camera). This sharing and discussion cannot be made up.

**Homework** Corresponding homework from the text will be assigned after class problem solving sessions. It is a good idea to carefully read the section and work out the sample problems before you start your text homework. Many of the homework problems can be tricky and require in-depth problem solving. You may find it helpful to work on a problem, set it aside for a day and then resume your work. You may ask questions about the text homework both in class and during office hours. Homework other than text homework may also be assigned.

**Tutoring** Students are encouraged to take advantage of the free tutoring available at the Math Center in Hamersly Library (Room 228) Monday through Thursday. Check the webpage <http://www.wou.edu/las/natsci/math/math/tutor/> to find the times for tutors who are able to help with this class.

**HW Cover Sheets** There are cover sheets for the text homework assignments in your coursepack. Per the directions on the back of the cover sheet, fill out the cover sheet and staple the completed sheet to the front of your homework.

**Late Text Homework** Unless otherwise noted, all homework is due at the beginning of class. NO late homework will be accepted. However, your lowest homework score will be dropped.

## **JOURNAL ASSIGNMENTS**

In addition to Math Buddy and Text Homework, students will read assigned problem solving journal articles. A short quiz related to each article will be given.

## **MIDTERM EXAM**

This class will have a Problem-Solving Midterm Exam to be completed individually in class. Missed exams can generally not be made up; this is up to the discretion of your professor.

## **GROUP FINAL EXAM**

This class will have a group Problem-Solving Final Exam, scheduled for MONDAY of finals week. This cannot be changed and students who miss the final exam will earn a score of 0 on the exam.

## **CELL PHONE POLICY**

- Turn them off (not even on vibrate) during class
- Put them away
- No texting during class
- Electronic item use during exams or quizzes will be treated as cheating and you will receive a zero score on that exam or quiz.

If you are in an emergency situation in which you need to have your cell phone on quiet; please speak to your professor about it before class.

## **YOUR STUDENT WOU EMAIL ACCOUNT**

All official university and class business and announcements will be directed to your WOU student email account. If you do not regularly check this account, please log in to this account and FORWARD your WOU email to an account that you do regularly access.

## **COURSE ASSESSMENT COMPONENTS**

<b>Component</b>	<b>%</b>
Attendance	Possible deductions only
Text & Other Homework	25
Math Buddy Project	25
Journal Article Quizzes	15
Midterm Exam	20
Group Final Exam	15
Total	100

## **THE STANDARD GRADING SCALE FOR THIS COURSE APPLIES**

**VETERANS AND ACTIVE MILITARY PERSONNEL** with special circumstances are welcome and encouraged to communicate these, in advance if possible, to the instructor.

### **APPROPRIATE CLASSROOM BEHAVIOR**

You are ultimately responsible for your own attendance and performance. Disruptive classroom behavior of any kind, such as talking during lecture or consistently coming to class late etc., is not appropriate. Proscribed Conduct for all students is described in the University Catalog.

In particular for this course any student found cheating on an exam or copying from another student's exam paper will receive a zero score on that exam and a report of this activity will be sent to the Judicial Affairs office.

### **LEARNING DISABILITIES**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Office of Disability Services, APSC 405, or at 503-838-8250, as early as possible in the term. Students needing medical or mental health care can access the Student Health and Counseling Center by calling 503-838-8313, emailing at [health@wou.edu](mailto:health@wou.edu), or by walking in to schedule an appointment.

### **INCOMPLETE POLICY**

An Incomplete can only be considered for a student who is passing a class and has a documented emergency that prevents them from completing a very small portion of the course (e.g. the final exam) after Friday of week seven of the course, which is the last day to withdraw from the course with a "W" grade.

### **STUDENT SUCCESS SPECIALIST**

If the instructor determines your performance in this class is placing you at academic risk, you may be referred to Jesse Poole, Western's Student Success Specialist. Jesse will offer to work with you to address issues and develop a student success strategy. Regardless of whether a referral has or has not been made, you are ultimately responsible for tracking your own progress in this course. If you would like to meet with Jesse regarding any academic struggles you are experiencing, please contact the Academic Advising and Learning Center at [503-838-8428](tel:503-838-8428)