Structure and Concepts of Elementary Mathematics II (Math 126)
Section 4843, Room H-118, Tuesday, Thursday 6:30 -- 8:20 PM
Spring 2019, Cuyamaca College

INSTRUCTOR: Dr. Rudolph Perkins   **E-MAIL:** rudolph.perkins@gcccd.edu

Student Hours: Wednesdays 5 -- 6 PM and Thursdays 5:30 -- 6:30 PM in the STEM
   Center (H-building)

IMPORTANT DATES:

Cuyamaca Spring 2019 Academic Calendar

Full-Semester Courses	Jan. 28 -- June 3
Last Day to Drop Classes Without a "W" on Your Record	Feb. 8
Last Day to Apply for a Refund	Feb. 8
Last Day to Apply for P/NP (CR/NCR)	March. 1
Last Day to Apply for Spring 2019 Degree/Certificate	March 8
Holiday (Spring Recess)	**March 25 -- 30**
Last Day to Drop Classes	April 26
Final Examinations	May 28 -- June 3
Instructor Grade Deadline	June 6

Final Exam: TUESDAY, MAY 28, 6:45 -- 8:45 p.m.

TEXT: Reconceptualizing Mathematics: Sowder, Sowder, Nickerson 3rd edition
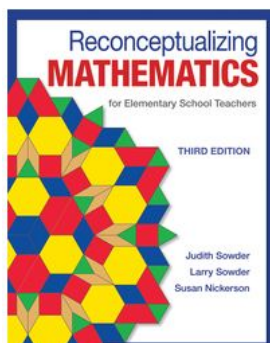
Course Prerequisite: Grades of C or above in the course Math 125 or equivalent.

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occurs, you will be notified in writing by the instructor.

Course Description:
In blending the mathematical topics of statistics, probability, measurement, coordinate geometry, plane geometry, solid geometry, logic, relations and functions, the course will investigate the interrelationships of these topics using a problem-solving approach and appropriate use of technology.

Standard Learning Outcomes (SLO):
Upon successful completion of this course, students will be able to:

1. Use inductive and deductive reasoning to formulate mathematical conjectures and theorems.
2. Use critical thinking and problem solving skills to solve mathematical problems involving geometry, measurement and probability.
3. Recognize a variety of figures and shapes from two and three dimensional geometries, and use their properties to solve problems in both geometric and non-geometric contexts.
4. Identify, demonstrate, and apply different kinds of transformations and symmetries.
5. Demonstrate the concepts of congruence and similarity and apply them to solve problems involving area, surface area, and volume.
6. Actively demonstrate a number of geometric constructions.

Class Policies: As dictated by the SLOs above, the purpose of this course is to deepen your knowledge of elementary school level mathematics---particularly, geometry. I intend for the course to be hands-on and student-centered, based around solving interesting and challenging problems and doing activities as a class with the purpose of building on and expanding your current mathematical knowledge.

Plan now on being in class every day that class meets and spending at least two hours each day outside of class studying and working problems. It is my intention to make this class as enjoyable as possible.

My goals for this course are for you to explore multiple methods and approaches to finding and explaining---to an elementary schooler or jr. higher---the correct solution to many types of problems. By the end of this course, you will be able to solve a variety of problems in geometry, counting, probability and statistics, but you will be expected to do much more, including: explaining your reasoning, often using illustrations, critiquing your peers' work, and understanding why a solution is wrong, and how to fix it. If you are having difficulty with the math concepts themselves, please see me as soon as possible.

Classroom Behavior: Class time is valuable. I expect you to be focused on the work of the class during class time. At all times a student's conduct and language is expected to be respectful of others. As students you are encouraged to participate in all class discussions. Part of the understanding process is being able to communicate your understanding of the content area. It will help you and your

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peers tremendously to ask any questions you may have. There are no "stupid" questions! Often, formulating a question and simply speaking it out loud can already lead you to coming up with the solution!

Attendance is required at every class meeting. Excessive absences in a 3 unit class is 3 hours -- I reserve the right to drop you from the course if you miss more than two class meetings. If you will be late or cannot make it to a class, please write me in advance. This is one way of showing that you care and are serious about the course.

Exams: We will aim for three exams and one *comprehensive (cumulative)* final exam. **Make-up exams may be given under *very exceptional* circumstances; this will be determined on a case-by-case basis**. So, if you know you will miss an exam, let me know in advance and arrangement will be made for you to take it early.

Grading Policy and Percentage of your total grade:
Exams (3 exams)   50 %
Weekly Quizzes 15% (lowest quiz will be dropped)
Homework/Problem of the month/Class-work 10%
Final Exam: 25%

98 – 100 % A+	88 – 89% B+	78 – 79% C +	60 – 69 % D
97 – 92% A	82 – 87% B	70 – 77% C	Below 60% F
91 – 90% A -	81 – 80% B-		

If you are absent the day we do class-work or take a quiz you will receive a zero for that particular assignment.

STUDENTS WITH DISABILITIES:
Students needing special accommodations through DSPS need to inform me within the FIRST WEEK of the class.

TIPS FOR SUCCESS:
-Get to class on time
-Keep a positive attitude; i.e. don't be too hard on yourself!
-Listen attentively to the lectures, take careful notes, and ask lots of questions
-Do the homework!
-Make friends with your classmates and study together outside of class
-Get a free tutor (see just below!)

STEM Center Tutoring:
To support your efforts to succeed in this class, it is highly recommended that you utilize the free math tutoring services available in the STEM Center (the Tutoring Center, H-Building). Students needing additional help to achieve the learning outcomes for this class are encouraged to enroll in Math 198, Supervised Tutoring. The H-building STEM center tutor station will provide students with an add code to enroll in this free non-credit class. Instructors and student tutors are available to

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answer homework questions, give confidence, and support math students. Students also have access to graphing calculators, textbooks, instructional videos, and computer tutorial programs. Computers are also available for student use. Hours of the STEM Center: M–Th 9:00 am – 6:00 pm, Friday 9:00 – 2:00 pm. See the following link for up-to-date tutoring information:
http://www.cuyamaca.edu/academics/support/tutoring/default.aspx#stem

ACADEMIC INTEGRITY:
All work that you complete in this class should be your own. Any form of cheating will result in an "F" on the assignment, and a referral to the Dean for further action.

If you are having difficulty with any homework assignment, feel free to send me an email and make use of the STEM Achievement Center. Remember we are here to help you succeed. Use the resources that are available to you.

If you take course CR/NCR, then a credit grade is equivalent to an A, B, or C and a no credit grade is equivalent to a D or F.

The Standards for Mathematical Practice:
MP1 Make sense of problems and persevere in solving them.
MP2 Reason abstractly and quantitatively.
MP3 Construct viable arguments and critique the reasoning of others.
MP4 Model with mathematics.
MP5 Use appropriate tools strategically.
MP6 Attend to precision.
MP7 Look for and make use of structure.
MP8 Look for and express regularity in repeated reasoning.

SCHEDULE: A tentative semester schedule is forthcoming. As dictated by the SLOs, we will cover topics from Chapter 12 through the end of the book (Chapter 33). Obviously, we cannot cover every chapter in between, and I plan to focus on Geometry, as that is the focus of the equivalent course at SDSU.

HOMEWORK:
I will suggest problems for you as we go along that I think are good representatives of the topics covered in the corresponding sections; these will be posted for your reference on our Canvas course page. Do as many additional problems in each section as you have time for, and bring your questions to class.

Homeworks will be graded for completion and potentially graded for correctness. We had some success last semester posting and discussing solutions on Canvas, and I plan to use this resource again. I encourage you to work together to complete and discuss the homeworks, but all solutions must be written up in your own words, as per the section on academic honesty. I reserve the right to assign a grade of zero to any students who have simply copied each others' work, and upon multiple infractions, such students may be subject to further discipline by the Dean.

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