

| Syllabus for: Pre-Algebra | |
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| Semester & Year: | Fall 2012 |
| Course ID and Section Number: | MATH 376 – M2455 (032455) |
| Number of Credits/Units: | 4 |
| Day/Time: | M, W, F from 1:00 – 2:15 PM |
| Location: | Room 114, Mendocino Coast Education Center |
| Instructor's Name: | Richard Ries |
| Contact Information: | Office location and hours: Room 102, M-TH, 8 – 10 a.m. Phone: 707-962-2681 Email: richard-ries@redwoods.edu |
| <p>Course Description (catalog description as described in course outline): A comprehensive review of arithmetic involving whole numbers, fractions, decimals, and signed numbers. Students will solve problems involving ratios, proportions, percents and geometry. Basic algebra concepts and techniques such as variables, simplifying expressions, solving equations will also be introduced. Problem solving, estimation and the communication of mathematical ideas are an integral part of the course. Use of a scientific calculator will be introduced.</p> | |
| <p>Student Learning Outcomes (as described in course outline):</p> <ol style="list-style-type: none"> 1. Evaluate and simplify numerical and algebraic expressions involving integers and rational numbers. 2. Solve linear equations. 3. Write linear equations for word problems and solve. 4. Use sound mathematical writing and appropriate use of symbolism in presenting solutions of mathematical exercises and applications. | |
| <p>Special accommodations: College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS.</p> | |
| <p>Academic Misconduct: Cheating, plagiarism, collusion, abuse of resource materials, computer misuse, fabrication or falsification, multiple submissions, complicity in academic misconduct, and/ or bearing false witness will not be tolerated. Violations will be dealt with according to the procedures and sanctions proscribed by the College of the Redwoods. Students caught plagiarizing or cheating on exams will receive an "F" in the course.</p> | |

The student code of conduct is available on the College of the Redwoods website at:
<http://www.redwoods.edu/District/Board/New/Chapter5/AP%205500%20Conduct%20Code%20ofinal%2002-07-2012.pdf>

College of the Redwoods is committed to equal opportunity in employment, admission to the college, and in the conduct of all of its programs and activities.

PREREQUISITES: MATH 372 OR APPROPRIATE SCORE ON MATH PLACEMENT EXAM.

Describe representative skills without which the student would be highly unlikely to succeed:

Students will need to be proficient in basic arithmetic facts involving whole numbers.

Textbook: College of the Redwoods Department of Mathematics; Title: Prealgebra Textbook, First Edition; Date 2010. The available modes will be discussed during class.

Instructor Philosophy: The focus of learning is the student's analysis of experiences. Skill is required to combine first hand experiences, dialogue, thoughtful analysis and interpretation to give meaning and application of these experiences to life. Learning as an adult is an expansion of one's knowledge (facts and ideas), thinking (ability to assess) and behaviors (skills). Successful learning requires the cooperative efforts of both teachers and students. I am here to provide resources and facilitate the pursuit of your education. Studies have shown that the most successful students are those who ask questions and participate in discussions. I look forward to working with a class who, as adults, understand that the acquisition of knowledge is a matter of personal responsibility that requires active participation.

Goals of This Course: The goal of this course is to help you to become proficient in the foundations necessary for success in a pre-algebra class and prepare you for other future math classes. Many mistakes that cost students dearly in terms of their grades in more advanced courses are basic algebraic mistakes. Since mathematics is a subject that builds upon itself, a strong foundation in algebra is essential for the rest of your math education. The best way to master any math topic is to practice by doing problems. The more you practice, the better you will become. Other successful learning strategies include forming study groups and outlining reading materials. If you are having difficulty with any topic, please come see me early to get you back on track as soon as possible.

Student Responsibilities: You are expected to come to class prepared by having read the assigned chapters and handouts, and completed all prior assignments. Proper adult behavior is expected at all times. The instructor reserves the right to dismiss a student from class permanently for disruptive behavior. Disruptive behavior is any behavior that distracts the instructor or other students. The instructor has an obligation to promote the learning of the students of the class and anyone who is disrupting the learning process will be dropped for lack of academic effort. A lack of academic effort also includes, but is not limited to the following: missing or failing assignments, excessive absences, arriving late to class, exiting class before its termination, cheating, plagiarism or other disruptive behaviors. Also, please have your cellular phones off while in class and do not bring food or drink to class. If you wish to be dropped from the class it is your responsibility to do so.

Homework: will be assigned every class meeting, and is due at the beginning of the next class meeting.

Late homework will *not* be accepted! If you can't get the assignment in on time make sure you know the material because you will still be held responsible for the information.

Quizzes: Quizzes will be given on material covered in class and in the homework. Make up quizzes will not be given! We may be using the OPTIMATH testing system for some of the homework and quizzes.

Exams: We will have several exams plus one final exam this semester. Let me know in advance if you are going to miss an exam. Make-ups will only be given at *my* discretion. Do ***not* miss** an exam! The cumulative final exam is scheduled during finals week December 10 - December 14. Do NOT plan on leaving town until after your last final exam.

Attendance: I reserve the right to drop from the course any student that has more than three unexcused absences. Reference: Title 5, Sections 55024 and 58004. Approved: 05/01/2012

******* I expect you to attend every class meeting on time and ready to learn. If you are absent, continue with the homework schedule. *******

Grading Weights:

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| Homework/Quizzes/Activities | 20% |
| Midterm Exams | 65% |
| Final Exam | 15% |

Grades will be assigned as follows:

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|-----------|---|
| 90-100% | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| Below 60% | F |

This information is subject to change depending on class circumstances.

MATH 376 Weekly Schedule

NOTE: This schedule is approximate and may be modified as the semester progresses.

| Week | Topics |
|-------------|---|
| 1 | Section 1.1 An Introduction to Whole Numbers Section 1.2 Adding and Subtracting Whole Numbers Section 1.3 Multiplying and Division of Whole Numbers Section 1.4 Prime Factorization Section 1.5 Order of Operations |
| 2 | Section 1.6 Solving Equations by Addition and Subtraction Section 1.7 Solving Equations by Multiplication and Division Review for the Chapter 1 Exam |
| 3 | Chapter 1 Exam Section 2.1 An Introduction to the Integers Section 2.2 Adding Integers Section 2.3 Subtracting Integers |
| 4 | Section 2.4 Multiplication and Division of Integers Section 2.5 Order of Operations with Integers Section 2.6 Solving Equations Involving Integers |
| 5 | Review for the Chapter 2 Exam Chapter 2 Exam Section 3.1 Mathematical Expressions Section 3.2 Evaluating Algebraic Expressions |
| 6 | Section 3.3 Simplifying Algebraic Expressions Section 3.4 Combining Like Terms Section 3.5 Solving Equations Involving Integers II Section 3.6 Applications |
| 7 | Review for the Chapter 3 Exam Chapter 3 Exam Section 4.1 Equivalent Fractions Section 4.2 Multiplying Fractions |
| 8 | Section 4.3 Dividing Fractions Section 4.4 Adding and Subtracting Fractions Section 4.5 Multiplying and Dividing Mixed Numbers Section 4.6 Adding and Subtracting Mixed Numbers |
| 9 | Section 4.7 Order of Operations with Fractions Section 4.8 Solving Equations with Fractions Review for the Chapter 4 Exam Chapter 4 Exam |

| Week | Topics |
|-------------|--|
| 10 | Section 5.1 Introduction to Decimals Section 5.2 Adding and Subtracting Decimals Section 5.3 Multiplying Decimals Section 5.4 Dividing Decimals |
| 11 | Section 5.5 Fractions and Decimals Section 5.6 Equations with Decimals Section 5.7 Introduction to Square Roots Section 5.8 The Pythagorean Theorem |
| 12 | Review for the Chapter 5 Exam Chapter 5 Exam Section 6.1 Introduction to Ratios and Rates Section 6.2 Introduction to Proportion |
| 13 | Section 6.3 Unit Conversion: American System Section 6.4 Unit Conversion: Metric System |
| 14 | Section 6.5 American Units to Metric Units and Vice-Versa Section 7.1 Percent, Decimals, Fractions Section 7.2 Solving Basic Percent Problems Section 7.3 General Applications of Percent |
| 15 | Section 7.4 Percent Increase or Decrease Section 7.5 Interest Chapter 7 Take-home Exam |
| Finals Week | Final Exam |