Algebra for P-8 Teachers 1
Math 3803 - 02
3 Credit Hours
Fall 2009

Instructor: Kevin Dyke
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Office Hours: Monday: 10:30 am - 12:00 pm, 1 pm - 2 pm, 3:15 pm - 4 pm & 5 pm - 5:30 pm
Wednesday: 1 pm to 2 pm, 3:15 pm to 4 pm, 45 pm to 5:30 pm
AND by appointment
Also available for tutoring in the Math tutoring Center - Boyd 2nd floor
Monday/Wednesday 4 pm to 5 pm

Class Meeting: Mondays: 8:00 am to 10:30 am Boyd 307

Required Text: Algebra; Flash Review Series by Jon Becker, Addison Wesley 2004 & Course packet of articles and worksheets at bookstore.

Course Objectives: After completion of the course, the student will demonstrate;
1. An understanding of standard vocabulary and symbols associated with algebra;
2. A better understanding of fundamental concepts of algebra, including linear and quadratic equations in one and two variables, linear inequalities, functions, polynomials, exponents, and radicals;
3. The ability to recognize and correct "common errors" made by algebra students;
4. A better understanding of appropriate strategies for teaching algebra;
5. A better understanding of the uses of a variety of manipulatives, technology, and other materials for teaching algebra in grades P-8; and
6. An ability to relate algebra topics studied in this course to the mathematics taught in grades P-8.

Late Assignments Policy: Hard copies of all assignments, journal entries, etc. are due at the beginning of class on the specified date (see course schedule). Late assignments will not be accepted unless prior approval has been given by the instructor. In the event that a late assignment is accepted, the grade on the assignment may be lowered.

Suggested Problems: For each section covered in class there will be a set of problems provided. These are not homework problems in the sense that they will be taken up and graded. Instead, these are problems that are recommended for you to work in order to be successful in the class. If you have questions concerning the suggested problems, you should address these questions to the instructor during office hours, before or after class, or during the review session prior to the test.

Attendance Policy: Students are expected to attend all classes. If a class is missed, the student is responsible for the material and assignments. Tests cannot be made up, if a test is missed, your final will count for that test. Attendance will be taken every day.
Class participation, presentation, lesson plan projects and article reviews:

Presentation: Each student will select one section of the topics we are covering and do a 10 –15 minute presentation or an activity to teach the mathematical concept. The activity should promote the conceptual understanding of the mathematical topic.

Lesson Plan Projects: Each student will come up with four lesson plan activities that are Algebra related. You can choose any grade level from P-8. Each student will write a 1 – 2 page lesson plan/paper describing each activity. Each description should include; the lesson’s objective, how you will achieve the objective (or how the activity will work), and the materials used. You should also reference the performance standard and the grade level. (ie M4M1. Students will understand the concept of weight and how to measure it.) One lesson plan will be due on each review day.

Article Reviews: Each student will review four articles about teaching mathematics located in the course packet. The review should be 1 – 2 pages in length and give a brief summary of the article and how you feel it applies to teaching. One Article Review will be due on each review day.

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<th>Title</th>
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<tr>
<td>1. Children’s Understanding of Equality: A Foundation for Algebra</td>
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<td>2. Algebraic Problem Solving in the Primary Grades</td>
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<td>3. Functions From Kindergarten Through Sixth Grade</td>
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<td>4. You may choose an article from any of the remaining articles in the course packet.</td>
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Grading: Your grade will be calculated as follows:

- Test 1: 190 pts
- Test 2: 190 pts
- Test 3: 190 pts
- Class Participation: 25 pts
- Class Lesson Presentation: 25 pts
- Lesson Plan Projects (4 @ 10 pts each): 40 pts
- Article Reviews (4 @ 10 pts each): 40 pts
- Final: 300 pts

Total: 1000 pts

Grade distribution by your total points:

- A: 900 - 1000
- B: 800 – 899
- C: 700 – 799
- D: 600 – 699
- F: 0 - 599

Cheating: Cheating will not be tolerated! If a student is caught cheating on a test, they will receive a zero for the test and referred to the student judicial for academic dishonesty.

Cell phones and other considerations:

Please refrain from any cell phone use in class. Please refrain from any unrelated conversations during class. If you have a question about the class material, please ask. Other students can easily be distracted by even small conversations. Cell phones cannot be used as calculators on tests.