MAT 104: Foundations of Elementary Mathematics I
Spring 2015
TR 2:00-3:50pm in Main 301

Instructor: Mrs. Heather Evans
Office: Math House (202 College Ave) # 102
Phone: 262.844.8664
E-mail: hevans@carrollu.edu
Office Hours: T 11:00am -1:50pm W 12:05-1:00pm

Prerequisites: MAT 101 or placement recommendation
Calculator: No calculators will be allowed on exams. You may find a calculator helpful for some homework problems.

Text: Big Ideas in Mathematics: Numbers and Operations for Future Elementary Teachers by Szydlik & Seaman

Course Context: This course is the first of a two course sequence in mathematics for Elementary Education majors.

Learning Goals: By the completion of this course, students will be able to solve problems using a variety of techniques, evaluate the claims of others, and communicate findings and ideas. Through the context of the problem solving, students will be able to describe and use algorithms for the basic number operations for a variety of number sets as well as describe and use properties associated with the operations. Students will be able to analyze number properties using elementary number theory.

Course Content: We will cover the entire text.

Format: This class may be unlike any mathematics class you have taken before. Most class time will be spent solving interesting problems in small groups and discussing ideas and solutions as a class. Sometimes you will be asked to write up those ideas and solutions, sometimes we will just discuss them. Always you are expected to think about the problems, participate in their solutions, and communicate your ideas with others. This format gives you the opportunity to practice skills you will need to be a teacher: listening and making sense of other people's mathematical ideas; explaining your ideas to others, orally and in writing; understanding that people think about problems in many ways; and learning to help others understand mathematical ideas.

Attendance: Students are expected to attend class. If you miss a class, you are responsible for any material covered, assignments, and announcements made. If you know you will miss an exam, you must tell me beforehand in order for a makeup to be considered. Exams missed because of illness must be appropriately documented before a makeup will be given. Makeup exams given for unexcused absences may have a penalty of up to one letter grade.

Technology: Do not send or receive calls or texts during class time. Mutual respect for other students’ feelings and ideas is expected and will be enforced in this course. We need you mentally present!

Homework: It is very important to work through as many of these problems as possible and to stay caught up. Typically, all the problems from the text are assigned for each section. Homework will be graded on a daily basis during class, so bring your assignments with you each day.

Class Participation: It is very important that you attend each class to participate in solving the problems and the class discussions. This portion of your grade is determined by attendance and promptness, effort in class and focus on the tasks at hand, and participation in group and class discussions.

Written Problems: Several written solutions will be collected throughout the semester. Each will have its own rubric and will be discussed more at the time of assigning.

Quizzes: A homework-based quiz will be given roughly every week that there is no exam. The total quiz average will count as 100 points toward the final grade. These problems are exactly like problems from the reading or homework. If you have done and understood the reading and the homework, you will recognize everything on the quizzes. Quizzes are closed note, closed book. No calculators are allowed. The lowest quiz score will be dropped. Because of this, NO makeup quizzes will be given.
Exams: There will be three in-class exams given during the semester. The tentative dates of these exams are listed below. Exams are all closed note, closed book. No calculators are permitted during exams.

<table>
<thead>
<tr>
<th>EXAM</th>
<th>Date</th>
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<tbody>
<tr>
<td>EXAM 1</td>
<td>February 17</td>
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<tr>
<td>EXAM 2</td>
<td>March 26</td>
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<tr>
<td>EXAM 3</td>
<td>April 23</td>
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<tr>
<td>FINAL</td>
<td>May 4, 1:00-4:00pm</td>
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Grading: The point values of the exams and quizzes are as follows:

- Tests: 300 points
- Final Exam: 200 points
- Homework: 50 points
- Quizzes: 100 points
- Written Problems: 120 points
- Class participation: 25 points

Total: 795 points

Final grades will be calculated on the following scale:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Grade</th>
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<tbody>
<tr>
<td>[92,100]</td>
<td>A</td>
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<tr>
<td>[88,92)</td>
<td>AB</td>
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<tr>
<td>[82,88]</td>
<td>B</td>
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<tr>
<td>[78,82]</td>
<td>BC</td>
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<tr>
<td>[70,78]</td>
<td>C</td>
</tr>
<tr>
<td>[60,70]</td>
<td>D</td>
</tr>
<tr>
<td>[0,60)</td>
<td>F</td>
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</tbody>
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Learning Commons: Beyond my office hours, extra math help can be found (free) in the Learning Commons housed in the lower level of the library.

Expectations: Mathematics is a demanding subject. In order to become proficient, expect to do at least two hours of independent work for every one hour spent in class. Attendance and homework are essential for understanding. During the time spent outside class, I suggest the following plan of action:

a) Read (slowly and carefully) the textbook sections corresponding to class lectures. Students benefit most when this is done before class. There will be times when the reading is part of the homework assignment.

b) Try every homework problem twice before asking for help. Don’t give up!!

c) ASK about the problems/concepts you don’t understand. You can ask other students in the class, or you can ask me. Once an explanation has been given, study it. Then try to do the problem again without the solution in front of you.

d) Don’t miss class. It takes a lot longer to catch up than you may think.

Academic Integrity: Please review the Carroll College Academic Integrity Policy in the student handbook. Violation of this policy will result in sanctions being imposed up to and including possible failure of the course and notification to the Academic Integrity Committee. As an example, students cheating on a test or quiz or plagiarizing on a written assignment should expect to receive a 0 for that assessment.

Disabilities: Students with documented disabilities who may need accommodation or any student considering obtaining documentation should make an appointment with the disabilities coordinator in the Walter Young center no later than the first week of class.

Caveat: All students should understand that the schedules and commitments made in this syllabus are subject to change in the event of extenuating circumstances.