

INSTRUCTOR: Dr. Beth Osikiewicz

CONTACT INFORMATION:

- Office: B-115
- Phone: (330) 308-7412
- Office hours: 10:30 AM–12:25 PM MW,
10:00–10:40 AM TR,
or by appointment.
- E-Mail address: bosikiew@kent.edu
- Home page: <http://www.personal.kent.edu/~bosikiew/>

CLASS TIME: 8:25 AM – 10:30 AM M W C110 Call #15417

TEXT: *Mathematics for Elementary Teachers*, by Musser, Burger & Peterson 7th edition

PREREQUISITES: Students should have minimum ALEKS math placement assessment score of 35; minimum 22 ACT mathematics sub score; or minimum 520 SAT mathematics sub score; or MATH 00022 with a minimum grade of C. Failure to meet these prerequisites may result in being deregistered from this class. Students cannot earn credit toward a degree for both this course and MATH 14001.

COURSE OBJECTIVES: This course covers the development of the real number system and its sub-systems as well as properties of numbers, numeration systems, set theory, logic, modular and clock arithmetic, algebraic concepts, number theory, and problem solving. In this course you will gain a deeper understanding of the fundamental concepts of mathematics so that you can explain them to others. For more information please see the Learning Outcomes listed at the end of this document.

ATTENDANCE POLICY: Regular attendance is necessary and expected. If you must miss a class, then YOU are responsible for any material that was covered. Please make arrangements with a fellow classmate to get the notes.

SUPPLIES: You will need a BASIC calculator. The calculator you use cannot have any special functions. (For example, your calculator cannot convert decimals to fractions, fractions to mixed numerals, etc.) In fact, you are prohibited from using a scientific calculator or graphing calculator. In addition, you are NOT allowed to use an Ipod application or a cell phone as your calculator. If your calculator is able to store material, no notes, formulas, or any information can be stored in the calculator. If you violate this condition, you will receive a zero on the exam/quiz. In addition, a large number of handouts will be given in this course. A 3-ring binder is the easiest way to accommodate the handouts that will be distributed throughout the semester.

ON-LINE SUPPLEMENTS: A web page for this class can be found at:

<http://www.personal.kent.edu/~bosikiew/Math10771/>

You can also access this page through the Blackboard Learn course page.

GRADING:

GRADING SCALE

A	=	900 — 1000 points
B	=	800 — 899 points
C	=	700 — 799 points
D	=	600 — 699 points

The final grade will be based on the following:

graded homework	(65 pts)	} = 1000 total points
4 in-class quizzes	(15 pts each)	
5 in-class exams	(125 pts each)	
comprehensive final	(250 pts)	

DAILY HOMEWORK ASSIGNMENTS: Daily homework will be assigned from each section but will not be collected. Therefore, it is your responsibility to ensure that you are doing the homework problems correctly. Keep in mind that the answers to all of the Set A problems are found in the back of your text, and the first part of class will always be devoted to answering homework problems. I encourage you to work in groups with your fellow classmates. Lastly, note that exam problems will be similar to assigned homework problems; hence, your success in this class is proportional to the amount of homework that you complete.

GRADED HOMEWORK ASSIGNMENTS: Several graded homework assignments will be given throughout the semester. Each graded homework will be announced in class and posted on my webpage. Each graded homework will have a specific due date. In some cases, late homework will be accepted; however, twenty percentage points will be deducted from your score. No late homework will be accepted once the key to the homework is provided to the class. If you do not turn in a homework assignment, a zero will be recorded as your homework score. See homework guidelines.

QUIZZES: Five quizzes (15 points each) will be given and your four highest quiz grades will count. The tentative dates for the quizzes are listed on the tentative daily schedule. However, the dates may change if necessary. All changes will be discussed in class.

EXAMS: There will be five 50 minute exams. Partial credit is awarded at the discretion of the instructor. Below is a list of the sections covered on each exam.

- Exam #1: Sections 2.1, Topic 1;
- Exam #2: Sections 2.3, 3.1–3.3, 4.1–4.3;
- Exam #3: Sections 5.1, 5.2, 8.1, 8.2, Topic 2;
- Exam #4: Sections 6.1–6.3, 7.1–7.4;
- Exam #5: Sections 1.1, 1.2, 2.4, 9.1–9.3

FINAL EXAM: The comprehensive final exam will be worth 250 points. The final exam is scheduled for Monday, December 11, from 7:45 AM–9:45 AM.

MAKE-UP EXAMS: Make-up exams will be given only in exceptional cases and provided you have a valid excuse. (Please note that vacations and work do not qualify as a valid excuse.) If you must miss an exam, you must contact me within 24 hours

of your absence and provide information on how I can contact you. If you do not contact me or do not have a valid excuse, I will have the option to deny giving you a make-up exam, and you will receive a grade of zero for the exam. Make-up exams should be completed prior to the next scheduled class meeting. If this is impossible, then a make-up exam will be given during **FINALS WEEK**, December 11–14, 2017. It is YOUR responsibility to schedule this make-up exam with me during the 15th week of the semester, December 4–7, 2017. If you fail to schedule this make-up exam during the 15th week, you will receive a zero for the exam. Please note that in general make-up exams are more difficult.

BLACKBOARD LEARN: Blackboard Learn will be used to post the scores on all graded material. The Blackboard Learn page for this course can be accessed through the Student Tab in your Flashline account or through <https://learn.kent.edu/> using your flashline id and password.

ELECTRONIC DEVICES: It is rude and inconsiderate to use electronic devices such as Ipods, Ipads, blackberries, etc. during class. Therefore, their use during class is prohibited. Also, please turn off all cell phones and put them away upon coming into class. If I catch you texting in class, I will simply ask you to leave. Furthermore, if a cell phone is activated during an exam, the owner will have a ten percentage point penalty assessed to his/her exam score due to the disturbance caused to the other class members. (Note: this policy also applies to any other noise-making device.)

EMAIL CORRESPONDENCES: Please use only your “@kent.edu” email for all correspondences. Remember to use complete sentences and identify yourself as well as the class in which you are enrolled.

ACADEMIC HONESTY: All work you turn in must be your own. University policy 3-01.8 deals with the problem of academic dishonesty, cheating, and plagiarism. None of these will be tolerated in this class. The sanctions provided in this policy will be used to deal with any violations. If you have any questions, please read the policy at www.kent.edu/policyreg/administrative-policy-regarding-student-cheating-and-plagiarism and/or ask.

STUDENTS WITH DISABILITIES: University policy 3-01.3 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations, please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must first verify your eligibility for these through Laurie Donley, Student Accessibility Services Coordinator, at (330) 308-7425 or at tuscas@kent.edu.

CLASS CANCELLATIONS: In case of a class cancellation, check your “@kent.edu” email account for an email from me notifying you of any homework or exam postponements.

NOTE: This syllabus is subject to change with notification.

HOMWORK GUIDELINES

1. Place all work in the space provided.
2. Be sure to show all of your work. Answers alone will **NOT** receive credit.
3. Be sure to circle your final answer.
4. If necessary, please staple your homework assignment.
5. Be sure your work is **neat, well-organized**, and **readable**. The instructor has the right to refuse any disorganized or unreadable work.
6. If you lose a copy of the assignment or need a “fresh” copy, you will find one on the course webpage.
7. If you are going to be absent from a class on which a homework assignment is due, it is your responsibility to get that assignment to me. Either submit it to me early, or have a friend give it to me.
8. In some cases, late homework will be accepted. Any homework turned in after the specified due date will be considered late and twenty percentage points will be deducted from your score. Please note that homework turned in on the due date but **AFTER** it has been collected in class is considered late.
9. No homework will be accepted once the key to the assignment is provided to the class.

Learning Outcomes for MATH 10771 (5)

Knowledge

Students should be able to define the number systems contained within the set of real numbers. They will also be able to define the various symbols used in logic and be able to work with different number bases. Comprehension Students should be able to understand the concepts necessary to add, subtract, multiply and divide within the sets of numbers. They will also be able to understand the properties within the sets of numbers to appreciate the sophistication and development of the real numbers.

Application

Students will apply their understanding of the four basic operations to solve problems. They will also use truth tables to determine whether logical arguments are valid or invalid and they will use principles of logic to solve problems. They will apply their understanding of the number properties to solve problems efficiently. They will be able to solve problems dealing with percent, ratio and proportion, rational number (fraction), integers, and decimals.

Analysis

Students will use Venn diagrams to determine the validity of DeMorgan's laws. They will appraise their current understanding of the subsets of the real number system and identify prior misconceptions. They will use estimation to analyze the plausibility of answers. They will listen to each other's explanations and try to make sense of them.

Synthesis

Students will integrate skills that were developed in Basic Algebra courses to solve word problems. They will also use problem solving skills to develop appropriate strategies for finding solutions to more involved problems. They will make connections between the various math concepts.

Evaluation

Students will find algebraic solutions to problems and evaluate various solution methods to find an efficient approach. Students will also use truth tables to determine when statements are logically equivalent.

Class Activities

Students will work in cooperative groups to discuss the validity of statements and other topics so that a consensus of class understanding can be determined. They will discuss topics beginning with concrete objects then move to a pictorial and then an abstract discussion of topics. At each level they will endeavor to make sense of the concept.

Out of Class Activities

Students will have homework assignments that allow them to show their understanding of the concepts discussed in class and in the book. These assignments will be collected periodically and the instructor will randomly check problems to determine if sufficient understanding is demonstrated.