

**MATH 11010 (MW)      ALGEBRA FOR CALCULUS      SPRING 2014**

**INSTRUCTOR:** Dr. Beth Osikiewicz

**CONTACT INFORMATION:**

- Office: B-115
- Phone: (330) 308-7412
- Office hours: 10:00–10:40 AM MW,  
12:00–12:45 PM TWR,  
2:15–3:40 PM MW,  
or by appointment.
- E-Mail address: bosikiew@kent.edu
- Home page: <http://www.personal.kent.edu/~bosikiew/>

**CLASS TIME:** 10:45 AM – 12:00 PM    M W    C100    Call #14787

**TEXT:** *College Algebra*, by Beecher, Penna, Bittinger. Third Edition. Published by Pearson Addison Wesley.

**PREREQUISITES:** Math 10024, or appropriate placement test score.

**COURSE OBJECTIVES:** Study of elementary functions and graphs, including polynomial, rational, exponential, and logarithmic functions; complex numbers; conic sections, arithmetic and geometric sequences and series.

**SUPPLIES:** A scientific calculator with  $e^x$  and  $\ln x$  is required. 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. The instructor has the right to inspect any calculator during an exam. 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.

**ATTENDANCE POLICY:** Regular attendance is necessary and expected. If you must miss a class, then YOU are responsible for any material that was covered. Graded homework assignments will be posted on the course webpage.

**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	(120 pts)	} = 1000 total points
4 in-class exams	(165 pts each)	
comprehensive final	(220 pts)	

**DAILY HOMEWORK ASSIGNMENTS:** Daily homework will be assigned from each topic but will not be collected. Therefore, it is your responsibility to ensure that you are doing the homework problems correctly. 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 the course 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.

**EXAMS:** There will be four 75 minute exams. Partial credit is awarded at the discretion of the instructor.

**FINAL EXAM:** The comprehensive final exam will be worth 220 points. The final exam is scheduled for Wednesday, May 7, 2014 from 10:00–12:00.

**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**, May 5–8, 2014. It is YOUR responsibility to schedule this make-up exam with me during the 15th week of the semester, April 28–May 1, 2014. 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.

**ON-LINE SUPPLEMENTS:** A webpage for this class can be found at:

<http://www.personal.kent.edu/~bosikiew/Math11010/>

You can also access this page through the Tuscarawas Campus home page. This site contains a listing of all course materials distributed in class. Also, BE SURE TO CHECK OUT

<http://www.personal.kent.edu/~bosikiew/Algebra-handouts/>

for some algebra supplements.

**Blackboard Learn:** Blackboard Learn will be used to post the graded homework and the scores on all graded homework assignments and exams. The Blackboard Learn page for this course can be accessed through the My Courses 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. Cheating will not be tolerated, and those found guilty will face the highest disciplinary action.

**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 Robert Brindley, Coordinator, Academic Services, in Room A104 or at 330-339-3391 Ext. 47433.

**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 notice.

## HOMEWORK 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.

## Algebra for Calculus Learning Outcomes

### Knowledge

- Represent functions verbally, numerically, graphically and algebraically, including linear, quadratic, polynomial, rational, root/radical/power, piecewise-defined, exponential, and logarithmic, functions.
- Perform operations on functions and transformations on the graphs of functions.
- Analyze the algebraic structure and graph of a function, including those listed above to determine intercepts, domain, range, intervals on which the function is increasing, decreasing or constant, the vertex of a quadratic function, asymptotes, whether the function is one-to-one, whether the graph has symmetry (even/odd), etc., and given the graph of a function to determine possible algebraic definition.
- Find inverses of functions listed above and understand the relationship of the graph of a function to that of its inverse.
- Solve a variety of equations and inequalities, including polynomial, rational, exponential, and logarithmic, including those arising in application problems.
- Identify and express the conics (quadratic equations in two variables) in standard rectangular form, graph the conics, and solve applied problems involving conics.

### Insight

- Use functions, including those listed above, to model a variety of real-world problem solving applications.
- Understand the difference between an algebraic equation of one, two or more variables and a function, and the relationship among the solutions of an equation in one variable, the zeros of the corresponding function, and the coordinates of the x-intercepts of the graph of that function.
- Represent sequences verbally, numerically, graphically and algebraically, including both the general term and recursively.

### Engagement

- Consider and explain the role of mathematics in understanding business and social problems
- Improve their confidence in and attitude toward math because of the sense-making emphasis in the course.
- Participate actively in class discussions.

### Responsibility

- Develop skills as a team player and decision making in a group setting.
- Develop confidence and competence in communicating mathematical knowledge to peers.