SYLLABUS (MA 105-VT)

MA 105 – Pre - Calculus Algebra

Semester: Summer 2014 **Section: MA 105-VT** **Instructor:** Kyle Besing

Instructor e-mail: kebesing@uab.edu **Phone:** 934-2154 **Office location:** CH479

Instructor website: http://people.cas.uab.edu/~kebesing/

Instructor office hours: Tuesday/Thursday 2:45 – 3:45 p.m. (or by appointment) in CH479
Class Meeting Time/Location: Tuesday/Thursday 1:00 – 2:45 p.m. in CH405
Lab Meeting Time/Location: Monday/Wednesday 1:00 – 2:45 p.m. in HHB202

Course Description: (3 semester hours). Functions from algebraic, geometric (graphical), and numerical points of view, including polynomial, rational, logarithmic, and exponential functions; inverse functions; quadratic and rational inequalities; complex and real roots of polynomials; applications and modeling, both scientific and business.

Learning Outcomes:

- Students can apply distance and midpoint formulas for solving geometric problems algebraically. Students recognize and graph equations of circles, and can identify the center and radius of a circle given the standard equation or the general equation of a circle.
- Students understand the concept of a relation and a function and the meaning of their domain and range. Students understand the algebra of functions, composite functions, and inverse functions.
- Students can read and interpret data presented in a graphical form, recognizing intervals of increasing or decreasing function value, and identifying maximum or minimum values of a function.
- Students can apply basic graphing principles in graph sketching. Students can graph quadratic functions identifying the vertex, intercepts, axis of symmetry, and can use the graph for solving quadratic inequalities.
- Students can graph polynomial functions when their zeros can be found. Students can use long division and synthetic division to divide polynomials, and understand the Factor and Remainder Theorems.
- Students are familiar with the graphs of basic rational and radical functions. Students can solve polynomial and rational inequalities by doing sign analysis.
- Students recognize the graphs of basic exponential and logarithmic functions, and can find their domain, range, and asymptotes. Students can solve exponential equations. Students can evaluate logarithms, simplify logarithmic expressions, and use the properties of logarithms to solve logarithmic equations.
- Students can solve real-life applied problems involving polynomial, exponential or logarithmic functions.

Attendance policy: Attendance at every class meeting and lab meeting is **required**. Roll will be taken. The following rules apply:

1. **Students may not sign the roll for another student**. Violation of this policy will result in a grade of F for academic misconduct.
2. If you come late to the class meeting, and the roll has passed your seat, do not ask to sign it.
3. Do not sign the roll if you intend to leave the class early.
4. In case of emergency, students may leave the class without the instructor's permission. Just get the instructor's attention and leave quietly with minimal disruption to the rest of the class.

Prerequisite: Grade of "C" or better in MA 102, or beginning freshmen meet Math Screening requirements (see ACT/SAT Math Subscore/GPA Grid in the latest UAB Class Schedule). Transfer students must have an appropriate score (80% or higher) on the MA 105 UAB placement Test in order to be eligible for MA 105.

Course Structure: This course is primarily computer-based. All homework assignments and quizzes are on-line and can be completed either on your own computer or using one of the computers in the UAB Math Learning Lab (MLL in **202, Heritage Hall**) anytime before the scheduled deadline (please note that deadlines include specific dates and times). All tests and the final exam are also done on the computer, but they must be taken in the MLL according to your class schedule during your lab meeting time. **In order to receive credit for homework and quizzes, the work must be done on or in advance of course deadline dates**. See the course schedule at the front of this syllabus for the course deadline dates.

Materials: *Precalculus Algebra MA 105 package,* which includes a *UAB Math 105 Student Workbook, by Elena Kravchuk*, 2010, Pearson/ Prentice Hall, and MyMathLab Plus **ACCESS CODE, is required**.

Students are required to have the MA105 student workbook and to bring it to the class lecture meetings.

Getting Started: The first thing you must do is access for your on-line course materials.

Access for a Course in MyMathLab Plus

All homework assignments, quizzes, and tests for this course will be available using MyMathLabPlus. You can only ACCESS YOUR COURSE through BlazerNet. **No other login pages will work**.

Your account has already been established in MyMathLabPlus and must be activated. In order to activate your account, log in to BlazerNet and click on the MyMathLab Plus link.

To gain access to your course assignments, you **must purchase a MyMathLab Plus access code**. You can use a temporary access to your course until you purchase your course materials. Remember, the temporary access will expire in about two weeks.

If you have any questions regarding your MyMathLab Plus account or access to your account, email your course instructor or you may stop by the Math Learning Lab in HHB202.

TROUBLESHOOTING TIPS:

If you have difficulty accessing your assignments in MyMathLab Plus, try the following steps:

- Close the browser and start over logging into BlazerNet. You can only access through BlazerNet.
- Run the Browser check to make sure you have all needed components.
- Try a different browser. Some work better than others (use Mozilla Firefox!)
- Contact Pearson technical support via chat.
- Have a backup plan: Go to the MLL in HHB 202 and do your work there. Ask the staff for help.
- If the above steps do not work, email your instructor or stop by the Math Learning Lab in HHB202.

STUDENT EXPECTATION STATEMENT

The Course Syllabus and Schedule serve as a Contract by which the student must comply. An excuse of "not knowing" information covered in these documents is not an acceptable excuse for making mistakes in this class.

• Students are required to complete regular assignments. All deadlines are based on Central Time. **There are NO EXTENSIONS of DEADLINES**.

• Students are expected to check their UAB e-mail daily and respond within 48 hours to instructor emails. Regular communication via e-mail with the Course Instructor is expected. Be sure to include your name, the course and section number in all communications with your instructor.

• It is the student's responsibility to make sure a valid e-mail address is provided. Failure on the student's part to do so can result in the student missing important information that could affect his grade. **Students are responsible for the information that is sent to their UAB e-mail account.** The Course Instructor will not accept e-mails sent from e-mails accounts than other UAB.

• Students are expected to devote an average of 8 to 12 hours per week to the assignments.

• Students are expected to have a back-up plan in the event their computer has operational problems, there is loss of electricity, or there is loss of Internet access. These are not an excuse for late or incomplete submission of assignments, nor are they acceptable reasons for an assignment deadline extension. UAB's MLL, most public libraries, school libraries, university libraries, etc. have computers with Internet access and are available for use by the public.

• The Math Learning Lab (**MLL**) in 202 Heritage Hall is available for student use Monday through Friday. Students in this course may use the computers to complete assignments, and they may get assistance from math tutors. Go to the math department website and click on Student Resources tab for details (http://www.uab.edu/mathematics).

Math Help. Tutoring assistance is available in the Math Learning Lab (MLL) located in 202 Heritage Hall. The hours of operation are posted on the door and can also be viewed on-line at www.math.uab.edu under Math Lab: Hours of Operation.

Calculator policy. Scientific calculators may be used for homework and quizzes, but **students may not use personal calculators while taking tests**. Note that all tests and the final exam for this course are administered in the MLL during your scheduled lab meeting times, and there is an on-screen scientific calculator available for your use when testing. Your instructor will not assist you with the on-screen calculator during a test, so it would be to your advantage if you familiarized yourself with the use of the on-screen calculator in the MLL *before* you have to take a test.

Course Grades: Students earn their grade in the course by accumulating points using a weighted scale. There is a maximum of 1000 points available. Student letter grades are awarded as shown in the following tables.

Number of Points	Letter Grade
880 to 1000	A
750 to 879	B
620 to 749	C
500 to 619	D
Below 500	F

Grade Element	Points	Quantity	Total Points
Homework	10	14	140
Quizzes	10	14	140
Poster	70	1	70
Tests	100	4	400
Final Exam	250	1	250
Total points			1000

**Note that 879 points earns you a grade of B, not a grade of A, etc.

Homework: There are 14 homework assignments. For each assignment you can earn up to 10 points, based on your homework score. An **unlimited** number of attempts can be made on each homework problem. If you miss a problem, click on *similar exercise* to work another problem correctly for full credit. There is no time limit for homework, so you may go in and out of the homework as many times as you like before the deadline (all your work is automatically saved). You earn points for homework completed on or before the due date. After the due date, you can review homework assignments and work similar exercises, but you cannot change your score.

Quizzes: There are 14 quizzes. Each quiz is worth 10 points. **Quizzes can be taken at home or in the Math Learning Lab** (during the scheduled hours of operation) on or before the deadline. **You must complete the quiz by yourself**. You may not obtain assistance from a fellow student or from a tutor. The **quizzes are timed**. Once you begin a quiz you must finish it within 30 minutes. You cannot exit the quiz or that will count as one of your attempts. Each quiz can be taken a **maximum of two times**. The higher grade attained will count.

Poster: You will be required to make a poster introducing and explaining a specific mathematical concept. You can earn up to 70 points for your poster.

Tests: There are four major tests to be taken. Tests will be taken in **Heritage Hall 202** during scheduled lab meeting times. The tests are timed and are 50 minutes long. **Students are required to keep a government issued photo ID on their desks during testing (UAB student ID, driver's license, etc).**

Make-up policy: There is no make up for missing homework deadlines or quiz deadlines. If a major test deadline is missed due to a **serious *verifiable*** circumstance, a make up test can be given. You will need to bring the instructor your supporting documentation within one week of the missed test.

Final Exam: Students take the final exam just as they take the major tests. The final exam will be given on **July 16, 2014.**

Course Completion: The course is complete once the student takes the final exam. No other points may be earned after the final exam has been taken.

Disability Support Services (DSS). DSS offers special accommodations to students who qualify. The UAB DSS office location is 1701 9th Avenue South, telephone: 934-4205, e-mail: dss@uab.edu. Students who have a DSS-approved accommodation for extended test times will take quizzes and tests that have a longer time duration. See your instructor for further information.

DEADLINE DATES

Work should be completed before deadline dates **but cannot be completed after deadline dates.**

Deadlines for homework, quizzes, and tests are INDEPENDENT of one another.

You do not have to complete homework to take quizzes or tests. (However, it is recommended.)

There are no prerequisites for any of the graded assignments.

Once you take the Final Exam the course is complete, and no additional homework assignments or quizzes will count toward your grade. **You must attempt the Final Exam to complete the course** (even if you have 620 points prior to taking the Final exam).

Homework/Quizzes			**Major Tests**			
No.	Text sections	Date	No.	No.	Text sections	Date
1	F.1, F.2	06/04/14	**1**			
2	F.4, 1.1, 1.2	06/06/14	**2**	**1**	F.1 – 1.5	
3	1.3, 1.4	06/9/14	**3**		(HW 1-4)	06/16/14
4	1.5, Review	06/11/14	**4**			
5	2.4, 2.5	06/16/14	**5**	**2**	1.6-2.6	
6	1.6, 2.6, Review	06/18/14	**6**		(HW 5-6)	06/23/14
7	3.1, 3.5	06/20/14	**7**			
8	3.6, 3.2	06/23/14	**8**			
9	3.4, Review	06/25/14	**9**	**3**	3.1-3.6	
10	4.1, 4.2	06/27/14	**10**		(HW 7-9)	06/30/14
11	4.3, 4.4	06/30/14	**11**			
12	4.5, 4.6	07/02/14	**12**	**4**	4.1-4.8	
13	4.7, 4.8	07/07/14	**13**		(HW 10-14)	07/14/14
14	Review	07/09/14	**14**		**Final Exam**	07/16/14