WELLS COLLEGE
MATH 109: Elementary Functions – Fall 2011
MWF 10:30-11:20 – Macmillan Hall 121
3 Credit Hours

Instructor: Gregory Moore   **Tentative Office Hours:** MF 11:30am-12:20pm
MacMillan 104   W 11:30am-1:20pm
315-364-3214   (see website for up-to-date times)
gmoore@wells.edu

Course website: http://mailbox.wells.edu/~gmoore/

Text: J.S. Ratti and M.S. McWaters (2010). Precalculus: A Right Triangle Approach, 2nd Ed. Pearson.

Content: An introduction to the algebra of sets and functions, emphasizing polynomials, exponential, logarithmic and trigonometric functions. Applications to business, economics and biology. Can serve as preparation for calculus.

This course will cover set theory and algebraic functions, and spend the majority of its time on:
Polynomial functions – eg. $5x^2 + 3x + c$
Logarithmic and exponential functions – $\log(x)$, e^x
Trigonometry – eg. $\sin(x)$, $\cos(x)$, and $\tan(x)$

Prerequisites: 3 years of high school mathematics or equivalent or permission from the instructor. If you are concerned that this class is not appropriate based on your background, please see the instructor.

Requirements: The formal course requirements listed below—homework, quizzes and exams—are designed to assist you in mastering the course material. However, you must work every day in order for these activities to make a difference. Be sure to ask questions in class or during office hours immediately if you have difficulties.

Calculator: A scientific calculator is both suggested and sufficient for classwork, homework and some assessments. A graphing calculator is also acceptable, but not required.

Help: In addition to class time, you may see me in my office or consult the teaching assistants in the math clinic (Mac 120). Please do not hesitate to seek help; that's why we're here.

Homework: By far the most important activity in the course is the doing of problems. There is an enormous difference between watching an instructor do a problem and doing one yourself. Even the best teacher cannot merely place knowledge in your mind. You must slowly discover it on your own as you struggle with problems. You are encouraged to work with other students when doing homework, but do not fool yourself by copying another's work. You must be an active participant. Homework will not be graded since it is used for learning the course material, but you **must do it**.

Quizzes: We will have quizzes given in class on Wednesdays. The problems will resemble recent homework exercises.

Project: During the course you will be asked to complete one project, individually or together with another student, that applies mathematics principles presented throughout the course to a complex real-world problem. Throughout the course possible projects will be mentioned in class and posted to the website for use as a

starting basis. You will discuss your findings with the instructor during office hours (or another mutually acceptable time). Grading will be based both on presentation and mathematical solution.

Exams: There will be three tests, given in class on (tentatively) September XXX, October XXX, and November XXX. The comprehensive Final Exam will take place from 2pm to 5pm on Tuesday, December 13. If you cannot attend an exam, it is **your responsibility** to contact me as soon as possible with a valid reason.

Grading:		
	Quizzes	15%
	Project	15%
	Tests 1, 2 and 3	50%
	Final Exam	20%

Students with Disabilities: If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Coordinator of Learning Support Services, Kristie Zieler (kzieler@wells.edu) to discuss accommodations that will help you succeed. Your conversations with her are highly confidential, and she will not supply details of your disability to anyone without your signed permission. Do understand that Ms. Zieler will need to notify your faculty about accommodations you might need and are supported by your disability documentation.

Homeworks:

P.1 – 1through 161 every eighth. (ie. Page 16: 1, 9, 17, 25, … 161)

Additional chapters will be assigned in the future.