MTH 112 | Pre-Calculus Algebra ~ Dual Enrollment
Snead State Community College (SSCC) ~ 3 credit hours
Susan Moore High School (SMHS) ~ 0.5 credit hours
Semester 1 ~ 2012/2013 School Year

This course emphasizes the algebra of functions – including polynomial, rational, exponential, and logarithmic functions. The course also covers systems of equations and inequalities, quadratic inequalities, and the binomial theorem. Additional topics may include matrices, Cramer's Rule, and mathematical induction.

Your Instructor is Mr. Cantlin

I have been a full-time math teacher at Susan Moore High School (SMHS) since 2004 and taught Dual Enrollment Mth 112 and Math 113 at Susan Moore High School as an adjunct instructor for Snead State Community College (SSCC) for the 2006/2007 school year. I have a BS in Nuclear Engineering for the University of Florida, an MS in Mechanical Engineering from Cleveland State University, and an MEd. from the University of St. Francis.

Instructor's Contact Policy

Students may contact me though SMHS Email (jcantlin@blountboe.net). You can contact me by telephone at SMHS at 205-466-7663. The class web site is at www.bulldogmath.com. After school help is available in my classroom at SMHS every day after school from 3 p.m. to 4:30 p.m. and on Saturdays from 9 a.m. to 12 p.m.

Class Dates, Times & Location

This class will meet Monday to Friday from 10:05 a.m. – 10:55a.m. in Room 9 at SMHS. The first three school days of the week are SSCC school days. The remaining school days of each week are SMHS school days. Of course, for high school attendance purposes all school days are required per the Blount County school calendar.

Course Learning Outcomes

The objective of this course is to provide an understanding of concepts, develop competent skills, and demonstrate applications in the following areas:

1.   analytic and geometric interpretation of algebraic, exponential, and logarithmic functions
2.   analytic and geometric interpretation of systems of equations and inequalities

While building on the manipulative skills from algebra this course strives to develop analytic skills as a preparation for further mathematical applications or courses in mathematics requiring knowledge of algebraic and transcendental functions.

Course Outline and Course Calendar

Class begins August 20, 2012 and concludes with the final exam. The SSCC part will follow SSCC Fall 2012 Academic Calendar and the SMHS part will follow the Blount Board of Education Semester 1 2012 Academic Calendar.

The last day to drop the class without a grade (earning a W) is per the SSCC Fall 2012 Academic Calendar.

Textbooks and Other Learning Material

"ALGEBRA FOR COLLEGE STUDENTS" Third Edition.
Wesner/Nustad ISBN 0697076547.

Use of Blackboard to Support Learning

All classes will use Snead State's Learning Management System, Blackboard. The use of Blackboard provides a means for students to access materials needed for the class. It also provides an alternative means for students to communicate with their instructor and with the other students in the class. Snead State uses Blackboard for on-campus as well as online classes.

Students who are new to Blackboard may wish to use this online link to access the On Demand Learning Center for Students - http://ondemand.blackboard.com/students.htm. For technical problems, contact Snead State's Online Blackboard Support at http://bbsupport.snead.edu/. Students may also call toll-free at **855-699-0734**. These services are available 24 hours a day, seven days a week. (This service is also available to faculty.)

Evaluation and Assessment

1. The FINAL Semester EXAM is comprehensive and is worth 25% of the Semester Grade.

2. There are two exams per quarter, the exam average is worth 50% of the Semester Grade.

3. There will be about 3 quizzes per quarter, the quiz average is worth 25% of the Semester Grade.

4. Quarterly grades will be assigned at the end of the semester, if needed. For example, if a student earns an 83% for the SSCC course final grade, an 83% will be assigned for the Q1, Q2 and Semester 1 high school grade. If quarterly grades are not needed then the SSCC final grade will just be the Semester 1 high school grade.

5. A = 90 - 100%, B = 80 - 89%, C = 70 – 79%, D = 60 – 69%, F = 59% or below

    Note: SSCC and SMHS use the same grading scale.

6. Make-up exams or quizzes will be per the Blount BOE Handbook and as arranged by the Instructor.

Expectations of the Student (Participation & Behavior)

Class attendance is considered an integral part of the educational process at Snead State Community college. The College maintains the philosophy that a student's academic success has a direct correlation to class attendance. A student is expected to attend, as well as, be on time for all class meetings.

Instructors *WILL NOT* be responsible or allowed to drop students from classes. There will be *NO* dropping students from class for excessive absences.   Students will receive a grade of 0 for each missed assignment in accordance with evaluation and assessment policies outlined in the previous section. Students who decide to stop attending class should withdraw from the course. **It is the *student's responsibility* to withdraw from classes.** Students who wish to drop classes must do so through the Student Services Office. At this point, a student CANNOT drop a class online.

The Last Day to Drop is stated in the Academic Calendar for the current Semester (based on the Title IV 60 % date for Pell). Withdrawals do not count towards student GPA. However, a withdrawal can negatively affect student's financial aid/scholarship situation. Students who are unsure whether a withdrawal will affect them should contact Student Services.

Students must complete an initial syllabus assignment during the first week of classes. Failure to complete this assignment will indicate that the student is NOT ACTIVE and could jeopardize any financial aid.

All communication devices that make noise (i.e., pagers, cell phones, etc.) must be turned off during class. Any disturbance caused by such devices or by disruptive student behavior can result in the student being dismissed from class. Dual enrollment students are still required to follow all rules in the Susan Moore and Blount County Handbooks.

Snead State's Student Success Center

Snead State has initiated a Student Success Center to assist students. Those who seek help with career planning, tutoring, transfer advising, access to a computer, financial aid, transcripts, payments and more should come to the Student Success center located in the McCain Center on the Boaz campus.

SSCC Academic Integrity Policy

Students of Snead State Community College are expected to behave as responsible members of the college community and to be honest and ethical in their academic work. SSCC strives to provide students with the knowledge, skills, judgment, and wisdom they need to function in society as educated adults. To falsify or fabricate the results of one's research; to present the words, ideas, data, or work of another as one's own; or to cheat on an examination corrupts the essential process of higher education and is a disservice to the student and to Snead State. Students who are suspected of Academic Integrity violations will be subject to disciplinary proceedings and may face consequences, including a failing grade, suspension, or expulsion. A student who is accused will have some rights to due process through appeal. Matters pertaining to potential violations of Academic Integrity will follow the SSCC Policy on Academic Integrity and Due Process, details of which are available through the Chief Academic Officer.

Standard College Policies

Standard College Policies apply to all classes at the college and are specified in the Snead State Community College Catalog and Student Handbook. Details are available through the Chief Academic Officer.

MTH 112 Dual Enrollment Fall 2012 Wesner 3rd Ed.

Week	Chapter/Section/Title or Topic	*Video # Prereq/Homework
1	6.1 Solve quadratics by factoring & extracting roots 6.2 Solve quadratics by completing the square	**V1**/Pg. 264: 5,7,9, 11,15,19,31,35,39,43,45 **V2**/Pg. 269: 13,17,27
2	6.3 Solve quadratics by the quadratic formula 6.5 Solve radical equations	**V2**/Pg. 276: 1,5,7,21, 27 **V3**/Pg. 288: 1,5,9,29,33,47, 48 **Quiz 1**
3	6.6 Equations that are quadratic in form 6.7 Quadratic and rational inequalities Review for Exam 1 (Ch. 6)	**V3**/Pg. 292: 1,3,9,11,27 **V4**/Pg. 298: 1,3,9,19. **V5**/Exam 1
4	7.1 The rectangular coordinate system and linear graphs 7.2 Distance & midpoint formulas, slope of a line, parallel, perpendicular lines 7.3 Finding the equation of a line 7.4 Graphs of linear inequalities 8.1 Relations and functions, domain, range 8.2 Function notation and algebra of functions	**V6**/Pg. 311: 1-13 odd, 15,23,25,31,37,39 **V6**/Pg. 324: 1,5,7,17,21,35 Pg. 333: 1,5,9,13,19,27,31,35,51,53,55 Pg. 341: 1,3,9,11,17 **V7**/Pg. 354: 1-11 odd, Pg. 356: 53-59 odd **V7**/Pg. 363: 1-7 odd, 8, 16, 19
5	8.3 Special functions & their graphs (inc. graph cube and cube root functions) 8.4 Inverse functions	**V8 & V9**/Pg. 374: 1, 3, 7, 11, 14 Pg. 383: 25, 31, & graph y=(x+2)^3 **Quiz 2**
6	Review for Exam 2 (Ch. 7, 8)	**V10**/Exam 2
7	9.1 Quadratic functions – the parabola 9.2 Quadratic relations – more about parabolas	**V11**/Pg. 405: 13, 21 Pg. 406: 27, 34, 52 **V11**/Pg. 412: 3, 10, 13, 19, 29
8	9.3 The circle 9.4 The ellipse and the hyperbola	**V12**/Pg. 416: 1,5,11,13,15,17,21,33,37 **V12**/Pg. 429: 1,9,11, 15 Pg. 431: 25, 31, 37, 39, 43-55 odd **Quiz 3**
9	12.1 Systems of linear equations in two variables 12.4 Systems of non-linear equations	**V13**/Pg. 522: 1,5,19,21,27,39,57,59 **V13**/Pg. 545: 1, 5, 9, 15, 21 **Quiz 4**
10	Practice for Exam 3 (Ch. 9, 12)	**V14**/Exam 3
11	4.6 Synthetic division review 10.2 Rational zeros of a polynomial function 10.4 Graphing polynomial functions	Pg. 195: 1, 3, 5, 8, 9, 11, 13 **V15**/Pg. 451: 1,5,7,15,21 **V15**/Pg. 465: 13,14
12	11.1 The exponential function 11.2 The logarithm 11.4 The common logarithm 11.5 Logarithms to the base e (inc. changes of base) Applications: Earthquake magnitude and interest problems	**V16**/Pg. 486: 1,5 **V16**/Pg. 491: 1,3,7,13,15,19,23,41,45,49,51 **V16**/Pg. 501: 1-11 odd **V17**/Pg. 507: 1-17 odd **V18**/Handout. **Quiz 5**
13	11.3 Properties of logarithms 11.6 Exponential equations	**V19 & V20**/Pg. 496: 1-13 odd, 19-29 odd, 49,51,53,57,59,65 **V20**/Pg. 510: 1-9 odd **Quiz 6**
14	Practice for Exam 4 (Ch. 10, 11)	**V21**/Exam 4
15	Practice for Final Exam	**V22**
16	Practice for Final Exam	**V22**
17	Final Exam	**Final Exam**

see next page for list of videos for Mth 112 at:

http://video.snead.edu/newvideoindex.asp?path=D:\TegrityDL\MTH112

Mth112 Lecture Videos Ref.: http://video.snead.edu/

Watching the assigned video lecture is a prerequisite for the assigned class topic.

No.	Video Title
1	Lesson_1_Solving_Quadratics_by_Factoring_and_Root_Extraction_ - Windows Media
2	Completing_the_Square_and_the_Quadratic_Formula_ - Windows Media
3	Solving_Radical_Equations_and_Equations_in_Quadratic_Form_ - Windows Media
4	Quadratic_and_Rational_Inequalities_ - Windows Media
5	Exam_1_Review_ - Windows Media
6	Rectangular_Coordinate_System,_Distance_Formula,_and_Slope_of_a_Line_ - Windows Media
7	Domain,_Range,_and_Evaluating_Functions_ - Windows Media
8	6_Basic_Functions_with_Shifts_ - Windows Media
9	Graph_Square_Root,_Absolute_Value,_Cube,_Cube_Root,_and_Piecewise_ - Windows Media
10	Exam_2_Review_ - Windows Media
11	Quadratic_Functions_and_Relations_ - Windows Media
12	Circles,_Ellipses,_and_Systems_of_Equations_ - Windows Media
13	Nonlinear_systems_of_equations_ - Windows Media
14	Exam_3_Review_ - Windows Media
15	zeros_and_graphing_polynomials_and_exponentials_ - Windows Media
16	Logarithmic_Functions_and_Common_Logs_ - Windows Media
17	Natural_Logarithms_and_Change_of_Base_ - Windows Media
18	Earthquake_and_Interest_Problems_ - Windows Media
19	Properties_of_Logarithms_ - Windows Media
20	Exponential_and_Logarithmic_Equations_ - Windows Media
21	Exam_4_Review_ - Windows Media
22	Final_Exam_Review_ - Windows Media

Student Name: _____

Course Number: _____

Instructor's Name: _____

Semester: _____

I have read the course overview given to me and fully understand the requirements, the materials, the objectives, the units to be covered, the methods of evaluation, the attendance policy, and the academic integrity statement. I agree to abide by the Instructional Computer Resources Acceptable Use Policy for SSCC, which is posted in the computer labs and in the College Catalog.

Date_____Signature_____