CENTRAL TEXAS COLLEGE  
SYLLABUS FOR DSMA 0190  
NCBO STEM INTERMEDIATE ALGEBRA TOPICS  

Semester Hours Credit:  1  

INSTRUCTOR: ______________________________  
OFFICE HOURS: ______________________________  

I. INTRODUCTION  
NCBO STEM Intermediate Algebra Topics is designed to help students successfully complete their freshman level STEM mathematics here at Central Texas College in one term. This is accomplished through just-in-time interventions that use innovative learning approaches that, compared to traditional lecture-only classes, more effectively and efficiently prepare students to advance to PreCalculus. This course specifically focuses on the algebra concepts necessary for the student to complete their first level STEM mathematics concurrently to include relations and functions, inequalities, algebraic expressions and equations (absolute value, polynomial, radical, rational), with a special emphasis on linear and quadratic expressions and equations.  

This course is available to students who need additional assistance to be successful in a freshman level mathematics course and transfer to a PreCalculus mathematics course. Students must be enrolled in a specific credit bearing mathematics course concurrently.  

II. LEARNING OUTCOMES  
Upon successful completion of this course NCBO STEM Intermediate Algebra Topics, the student will be able to:  

A. Define, represent, and perform operations on real and complex numbers. (F1, F2, F8)  
B. Recognize, understand, and analyze features of a function. (F3, F9)  
C. Recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions. (F3, F8, F9)  
D. Identify, graph and solve absolute value, polynomial, radical, and rational equations. (F3, F9, F10)  
E. Identify, graph and solve absolute value and linear inequalities. (F3, F9, F10)  
F. Model, interpret and justify mathematical ideas and concepts using multiple representations. (F1, F2, F4, F5, F8, F9, F10, F12)
G. Connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines. (F3, F4, F5, F7, F8, F9, F10, F11, F12)
H. Use electronic and other media, such as the computer and DVD, to reinforce and supplement the learning process. (F1, F2, F3, F6)
I. Demonstrate critical thinking, communication, and empirical and quantitative skills. (F1, F3, F4, F7, F9)

Some learning outcomes are followed by letters and numbers; i.e., C9 or F11. These refer to SCANS foundations skills (F) and workplace competencies (C). View a chart showing these skills at http://www.ctcd.edu/scans. For more on the (Labor) Secretary’s Commission on Achieving Necessary Skills, or SCANS, go to the U.S. Department of Labor site at http://wdr.doleta.gov/SCANS/.

III. INSTRUCTIONAL MATERIALS/RESOURCES
There will be no additional materials/resources required for purchase for this course outside of the requirements for the credit bearing mathematics course. The materials needed for the credit bearing mathematics course can be found at the following link:

http://www.ctcd.edu/im/im_main.asp

IV. COURSE REQUIREMENTS
A. The student is required to complete supplemental homework, quizzes, and Final Exam outside of the freshman level mathematics course. The student must pass the Final Exam to pass the course.

B. The student is required to attend the DSMA 0190 lectures conducted during the two weeks following each semester for the LEC/OBL course and urged to attend for the Online course.

C. Student will be urged to seek tutoring in the NCBO TAD computer lab (B118 Rm 15) for additional help. The NCBO TAD Lab is open during CTC normal business hours.

V. EXAMINATIONS AND ASSIGNMENTS
All assignments are available in the My Labs product.

VI. SEMESTER GRADE COMPUTATIONS
This is a Pass/Fail course based on completion of the Final Exam and attendance in the computer lab.
VII. NOTES AND ADDITIONAL INSTRUCTIONS

A. Withdrawal from Course: It is the student's responsibility to officially withdraw from a class if circumstances prevent attendance. Any student who desires to, or must, officially withdraw from a course after the first scheduled class meeting must file an Application for Withdrawal or Application for Refund. The withdrawal form must be signed by the student.

An Application for Withdrawal will be accepted at any time prior to Friday of the 6th week of classes during the 8 week fall and spring semesters. The deadline for sessions of other lengths is as follows:

- 8 week session: Friday of the 6th week
- 5 week session: Friday of the 3rd week

The equivalent date (75% of the semester) will be used for sessions of other lengths. The specific last day to withdraw is published each semester in the Schedule Bulletin.

Students who officially withdraw will receive the grade of "W" provided their attendance and academic performance are satisfactory at the time of official withdrawal. Students must file a withdrawal application with the college before they may be considered for withdrawal.

Before withdrawing from any developmental course, the student should seek the advice of Guidance and Counseling so that the student does not initiate an action that would inadvertently have a negative repercussion on his/her enrollment or Financial Aid.

B. Cellular Phones and Pagers: Cellular phones and pagers must be turned off while the student is in the classroom or laboratory.

C. American’s With Disabilities Act (ADA): Disability Support Services provide services to students who have appropriate documentation of a disability. Students requiring accommodations for class are responsible for contacting the Office of Disability Support Services (DSS) located on the central campus. This service is available to all students, regardless of location. Explore the website at www.ctcd.edu/disability-support for further information. Reasonable accommodations will be given in accordance with the federal and state laws through the DSS office.

D. Civility: Individuals are expected to be cognizant of what a constructive educational experience is and respectful of those participating in a learning environment. Failure to do so can result in disciplinary action up to and including expulsion.
E. **Office Hours:** Full-time instructors post their office hours outside their office doors. Part-time instructors may be available by appointment. Please feel free to see your instructor should you find yourself having difficulties with this course. The instructor of record will also have assigned times to be in the computer lab for individual assistance.

VIII. **COURSE OUTLINE**

Concepts covered in this NCBO are based on the topics required to be successful in a freshman level STEM mathematics course and the transition to PreCalculus. The concepts will be presented in a Just-In-Time computer aided environment – concepts will be taught as needed to complete the corresponding freshman level STEM mathematics material based on individual student’s mastery of outcomes. Topics to be covered include:

- Functions: Linear, Absolute Value, Polynomial, Radical, Rational (to include Partial Fractions), and Angular
- Graphing (to include Inequalities)
- Factoring
- Quadratic Formula (radicals, solving concepts)
- Systems of Equations and Inequalities
- Problem Solving