Course Syllabus
Southeast Missouri State University

Department of Mathematics **Course No. MA106**
Title of Course: Intermediate Algebra **New: Fall 2014**

I. Catalog Description and Credit Hours of Course:

Polynomials, factoring, equations and inequalities in one and two variables, rational expressions, rational exponents, quadratic equations, graphing, and systems of linear equations. (3 credit hours)

II. Prerequisite(s):

MA 050 with a grade of NDC or higher or ACT Math score of 15-21 or a required score on an appropriate COMPASS placement test.

III. Purposes or Objectives of the Course:

To prepare students for MA133 - Trigonometry, MA 134 – College Algebra, or MA137 - Precalculus.

IV. Student Learning Outcomes:

A. Students will be able to graph linear functions and solve linear systems of equations and inequalities in two unknowns.
B. Students will be able to simplify and perform operations on radical expressions and solve quadratic equations of the form $0 = ax^2 + bx + c$ using the quadratic formula, and graph quadratic functions of the form $y = ax^2$.
C. Students will be able to simplify and perform operations on rational expressions and solve equations containing rational expressions in proportional form.

V. Expectations of Students:

A. Attend all scheduled class sessions and work with an instructor or assistant during the entire class period.

Attendance Policy "Developmental courses are extremely important in assisting students who have not demonstrated the skills necessary for academic success at the college level. While grades may not be reduced on the basis of attendance, experience indicates that success in these courses is greatly diminished by poor attendance. Attendance is essential if students are to receive the expected benefits of these courses. Therefore, attendance is required at all class meetings of developmental courses." (Undergraduate Bulletin Course http://www.semo.edu/bulletin/.)

- For a full semester class, after one week's equivalent number of absences (for a 3-days-a-week class 3 absences, for a two-days-a week class 2 absences) the instructor will e-mail the student a warning about the lack of attendance and informing the student he/she will be dropped from the course should the absences continue.

- After two week's equivalent number of absences (for a 3-days-a-week class 6 absences, for a two-days-a week class 4 absences) the instructor will submit the student's name to the Chairperson of the Department of Mathematics who will notify the Dean of the College of Science, Technology

and Agriculture. Up until the official drop date for the semester, the student will be dropped from the course with an administrative withdrawal recorded on the transcript.

- Absences for university-sanctioned activities are considered excused absences and students will be allowed to make-up class work and assessments missed for these activities. Students who will miss class due to a university-sanctioned activity will be expected to provide the instructor with documentation from university personnel or faculty sponsoring the activity.

B. Successfully pass all course assignments and assessments at the 70% level or higher

VI. Course Outline:

A. Review of pre-requisite topics	2 hours
B. Linear Equalities	3 hours
C. Linear Inequalities	3 hours
D. Solving Word Problems with Linear Equations and Inequalities	6 hours
E. Graphing Linear Equations	6 hours
F. Solving a Linear System	3 hours
G. Laws of Exponents, Polynomials, and Factoring	6 hours
H. Radicals	5 hours
I. Quadratic Equations	3 hours
J. Rational Expressions and Functions	5 hours
Assessments	3 hours
Total	45 hours

VII. Textbook:

Elementary & Intermediate Algebra Plus NEW MyMathLab with Pearson eText -- Access Card Package, 3/e Sullivan, Struve & Mazzarella. (2014)

VIII. Basis of Student Evaluation:

A. Hour examinations	40%
B. Homework assignments, classroom participation	20%
C. Quizzes	20%
D. Final examination	20%