JEFFERSON COLLEGE

COURSE SYLLABUS

MTH094

SUPPORT FOR COLLEGE ALGEBRA

3 Credit Hours

Prepared by:
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MTH094 Support for College Algebra

I.   CATALOG DESCRIPTION

    A.   Course pre-requisites/co-requisites: ACCUPLACER Elementary Algebra score of 75 or higher, ACCUPLACER College Math score of 20 or higher, COMPASS Algebra score of at least 42, or COMPASS College Algebra score of at least 31 within the past two years, or Math ACT score of 18 or higher within the past two years. Co-requisite: MTH134 College Algebra

    B.   3 semester credit hours

    C.   MTH094 Support for College Algebra is taken concurrently with MTH134 College Algebra to give students additional practice with the numerical, algebraic, and study skills necessary for successful, independent completion of College Algebra. (F17)

    D.   Taken concurrently with MTH 134 College Algebra in fulfillment of Mathematics Proficiency requirement; does not count towards degree requirements.

II.   EXPECTED LEARNING OUTCOMES/ CORRESPONDING ASSESSMENT MEASURES

Expected Learning Outcomes	Assessment Measures
Develop and execute a plan for passing a college algebra exam that incorporates planning, preparing for class, efficient practice, self-quizzing, comprehensive review, and self-reflection.	Pre-class activities Timely completion of homework Homework and quiz notebook Self- and peer-review activities Quizzes (group and individual)
Create strategies for recognizing types of mathematical situations and then choosing appropriate methods to work with them.	Pre-class activities Classroom activities Student-instructor conferences
Fluently apply various mathematical algorithms, pertinent to College Algebra.	Quizzes (group and individual) Online homework assignments Classroom activities
Identify and correct their own computational errors.	Group activities Self- and peer-review activities Homework and quiz notebook
Identify non-cognitive barriers that may impede their progress toward passing exams and develop effective strategies for avoiding or overcoming such barriers.	Class discussions Student-instructor conferences

III.   OUTLINE OF TOPICS

This course is designed such that the instructor will individualize some of the instruction to each student in the class, based on each student's specific needs. All students should

demonstrate ability in the following areas, but the amount of time devoted to each area, and the number of activities and assignments for each area, will vary as needed.

A. Rational numbers
    1. Operations with rational numbers
    2. Division by zero
    3. Order of operations

B. Linear equations
    1. The distributive property
    2. Formulas
    3. Applications of linear equations

C. Equations of lines
    1. Features of graphs
    2. Equations of lines
    3. Introduction to functions
    4. Function notation with expression arguments

D. Polynomial expressions
    1. Squaring a binomial
    2. Completing the square
    3. Factoring
    4. Solving polynomial equations
    5. Polynomial long division

E. Rational expressions
    1. Simplifying rational expressions
    2. Finding the LCD of a rational expression

F. Radicals and rational exponents
    1. Simplifying radicals
    2. Understanding rational exponents

IV. METHODS OF INSTRUCTION

A. Whole-class discussions

B. Small-group discussions

C. One-on-one student-instructor conferences

D. In-class activities

E. Worksheets and handouts

F. MyMathLab assignments

V.   REQUIRED TEXTBOOK(S)

    A.   Bittinger, M., Beecher, J., Ellenbogen, D., & Penna, J. *College Algebra: Graphs and Models* (current edition). Boston: Pearson.

    B.   MyMathLab Student Access Kit. Boston: Pearson.

VI.   REQUIRED MATERIALS (STUDENT)

    A.   MyMathLab Access Code

    B.   Calculator – scientific, graphing, or app, at instructor's discretion

VII. SUPPLEMENTAL REFERENCES

    A.   Student Solutions Manual (contained within MyMathLab)

    B.   Study Plan (contained within MyMathLab)

VIII. METHODS OF EVALUATION (basis for determining grade)

    A.   Performance in College Algebra: 20 - 30%

    B.   Pre-class activities: 10-20%

    C.   Classroom Activities: 10-20%

    D.   Individual/Group Quizzes: 10-20%

    E.   Homework and quiz notebooks: 10 - 20%

    F.   Attendance and Participation: 10%

    G.   Grading Scale
        90-100% = A
        80-89% = B
        70-79% = C
        60-69% = D
        Below 60% = F

IX.   ADA-AA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Technology Center 101; phone 636-481-3169).

X.   ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see College website, http://www.jeffco.edu).

XI.   ATTENDANCE STATEMENT

Regular and punctual attendance is expected of all students. Any one of these four options may result in the student being removed from the class and an administrative withdrawal being processed: (1) Student fails to begin class; (2) Student ceases participation for at least two consecutive weeks; (3) Student misses 15 percent or more of the coursework; and/or (4) Student misses 15 percent or more of the course as defined by the instructor. Students earn their financial aid by regularly attending and actively participating in their coursework. If a student does not actively participate, he/she may have to return financial aid funds. Consult the College Catalog or a Student Financial Services representative for more details.

XII.   OUTSIDE OF CLASS ACADEMICALLY RELATED ACTIVITIES

The U.S. Department of Education mandates that students be made aware of expectations regarding coursework to be completed outside the classroom. Students are expected to spend substantial time outside of class meetings engaging in academically related activities such as reading, studying, and completing assignments. Specifically, time spent on academically related activities outside of class combined with time spent in class meetings is expected to be a minimum of 37.5 hours over the duration of the term for each credit hour.