GEORGIA PERIMETER COLLEGE
LEARNING SUPPORT
COMPREHENSIVE COURSE GUIDE

COURSE ABBREVIATION: MATH 0097
COURSE TITLE: Beginning Algebra
CREDIT HOURS: 4 hours institutional credit (does not count toward a degree)
PREREQUISITES: Placement by examination

CATALOG DESCRIPTION
This course is designed to help students learn the basic algebra necessary for college level mathematics. Topics include real-number concepts, selected geometry concepts, linear equations and inequalities in one variable, problem solving involving linear or factorable quadratic equations as models, operations on polynomials, factoring polynomials, integral exponents, and graphing linear equations in two variables. Additional topics include the study of rational expressions and the use of the scientific calculator.

REQUIRED TEXT:
Beginning and Intermediate Algebra, 3rd Ed. by Lial & Hornsby. Addison Wesley Longman. (A scientific calculator or a TI-83 graphing calculator is required.)

OPTIONAL TEXTS:

SUPPLEMENTARY MATERIALS:
In the non print section of the LRC: video tapes and CD ROMS of the video tapes
In the ISS of the LRC: free tutors
On the Internet: MyMathLab.com (free user ID with new textbook or may be purchased separately, must obtain course ID from instructor)
By phone: Math Tutor Center (a 1-800-phone number available only after student has logged into the MyMathLab.com)

GENERAL COURSE PURPOSE
To prepare the student for the study of intermediate algebra.

COURSE CONTENT
1. Real numbers and expressions
2. Exponents and polynomials
3. Linear equations and inequalities in one variable
4. Factoring
5. Rational expressions and rational equations
6. Linear equations in two variables

ENTRY LEVEL COMPETENCIES:
Upon entering this course, the student should be able to do the following:
1. Define and identify the factors and multiples of a number
2. Determine the greatest common factor of two or more given numbers
3. Determine the least common multiple of two or more given numbers
4. Solve real world applications involving whole numbers, fractions, decimals, and percents
5. Find the perimeter of polygons
6. Find the circumference of a circle
7. Find the area of a square, rectangle, triangle, parallelogram, circle, and trapezoid
8. Recognize and apply angle relationships within triangles, quadrilaterals, vertical and alternate interior angles
9. Translate an English phrase into a mathematical expression and a mathematical expression into an English phrase
10. Interpret results displayed in bar graphs, line graphs, or pie graphs

EXPECTED EDUCATIONAL RESULTS
As a result of completing this course, the student will be able to do the following:
1. Apply or recognize properties of real numbers (commutative, associative, distributive)
2. Classify real numbers as integers, rational, or irrational
3. Perform the four arithmetic operations with signed numbers
4. Determine the absolute value of a numerical expression
5. Construct correct expressions using algebraic symbols and notations from statements
6. Solve applications whose mathematical models are linear or factorable quadratic
7. Add, subtract, multiply, divide by a monomial, and factor polynomials
8. Solve the following types of equations: linear, factorable quadratic, linear fractional, and linear literal
9. Solve linear inequalities and write the solution set in interval notation. Graph the solution set on a number line
10. Graph linear equations in two variables
11. Add, subtract, multiply, and divide rational expressions
12. Solve problems involving square roots, order of operations, and scientific notation with the aid of a calculator. Use the exponent key.
13. Apply laws of exponents for integral exponents
14. Solve problems involving the Pythagorean Theorem, area, perimeter, and volume formulas for triangles, rectangles, squares, circles, and trapezoids
15. Recognize and apply angle relationships within triangles, quadrilaterals, vertical, and alternate interior angles

COURSE REQUIREMENTS
To pass MATH 0097, students must satisfactorily meet the following requirements:
1. Complete class assignments, appropriate laboratory assignments, and other course expectations
2. Average seventy percent (70%) or higher
3. Participate in class
4. Attend class regularly in accordance with attendance policy

Note: Grades of \( A, B, \) and \( C \), indicate satisfactory work. MATH 0097 students do not take an exit exam.

POLICIES:
1. Attempts. Students must complete MATH 0097 and MATH 0098 in three attempts or twelve semester hours, whichever occurs first, or they may be suspended from Georgia Perimeter College and all University System institutions for three (3) years. Attempts are cumulative within the Regents’ System. Prior to suspending a student who has not exited within the three attempts or twelve-semester hour limit, the student may appeal for two additional attempts. For each additional attempt, the student must:
   - be individually evaluated and determined to have a reasonable chance of success
   - be in an exit level course
   - have reached the limit in only one learning support area

   During the semester of the first additional attempt (the 4\(^{th}\) attempt), the student may enroll in courses other than Learning Support (subject to the 20-hour limit on the number of college level credit hours a student may earn before exiting Learning Support). If granted the appeal for the second additional attempt (the 5\(^{th}\) attempt), the student may enroll only in the learning support course involved.

   A student who is granted an appeal for a 4\(^{th}\) or 5\(^{th}\) attempt in mathematics may continue attempting the Learning Support course with grades of W as long as the attempts are sequential. If a student sits out for more than one term, the appeal is invalid and the student is suspended for 3 years.

2. Attendance. Students are expected to attend all classes regularly and punctually. Students who arrive late should report to the instructor at the end of class. Minimum attendance policy: At the midpoint of the term, if a student is absent from more than 10% of the classes for the term and is failing the course, then the student will be withdrawn with a grade of W. Instructors may have a stricter policy. At the midpoint of the term, students who have violated the instructor's attendance policy may be withdrawn with a grade of W. After mid-term, students who violate the instructor's attendance policy may receive an F for the term.

3. Withdrawals
   a. When withdrawals are initiated by the mid-term deadline, students will receive a grade of W.
   b. Students who are taking both learning support and collegiate-level courses and withdraw or are withdrawn from one or more required learning support course(s) before mid-term will also be withdrawn from all collegiate-level courses excepts HEDS 1011 or activity PE classes. They may, however, drop a credit course and remain in the learning support course(s).
   c. Students who are taking only learning support courses may withdraw from a course or courses to reduce course load.
   d. Students who withdraw from a learning support course after mid-term will receive a grade of WF, except in cases of hardship, which must be approved by the campus Dean for Academic Services.

4. Placement Exams. There is no retesting for COMPASS or CPE placement within the University System of Georgia unless 3 years have transpired since the last coursework was attempted or, if no coursework was attempted, since the initial test date.

5. Make-up work. The make-up policy for this course will be determined by the instructor.

6. Grades. Grades in Learning Support classes will be assigned as follows:
   A = 90-100
   B = 80-89
   C = 70-79
   IP = 60-69
   F = 0-59 (or having violated the attendance policy after mid-term)
   W = Withdrawal by mid-term
   WF = Student-initiated withdrawal after mid-term

   Note: Students who earn a grade of IP, F, W or WF must repeat the course. All grades except W count as attempts.

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8. Academic Respect. The College exists to foster educational excellence. To this end, a classroom atmosphere that supports learning, must be maintained. Students are expected to be active, attentive participants in the class. Students are also expected to abide by class policies and procedures and to treat faculty and other students in a professional, respectful manner. Students are expected to be familiar with the student conduct code published in the Student Handbook.

EFFECTIVE: Fall 2004