PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

REMEDIAL STUDIES MATHEMATICS
RSM 0730

Class Hours: 3.0   **Credit Hours: 3.0**

Laboratory Hours: **Date Revised: Fall 1998**
0.0

Catalog Course Description:

This course includes the study of signed numbers, fractions, percents, solving equations and associated word problems. Calculator use is integrated throughout the course.

Entry Level Standards: None

Prerequisites/Corequisites: None

Textbook(s) and Other Reference Materials Basic to the Course:

Bittinger, Ellenbogen. Prealgebra, 2nd ed. Addison Wesley, 1996.
Calculator with fraction capabilities

I. Week/Unit/Topic Basis:

Week	Topic
1	Whole Numbers and Integers: standard notation, addition, subtraction, multiplication, division, rounding, estimating, exponential notation order of operation, and integer number line
2	Integers and Algebraic Expressions: addition, subtraction, multiplication, division, introduction to algebra and expressions
3	Integers and Algebraic Expressions: like terms and perimeter
4	Multiplication and Division in Fractional Notation: factorizations, fractions, multiplications, simplifying, reciprocals, division, solving equations
5	Addition and Subtraction in Fractional Notation: least common multiples, addition and subtraction
6	Addition and Subtraction in Fractional Notation: mixed numerals, addition, and subtraction, using mixed numerals, multipication and division, using mixed numerals
7	Decimal Notation: addition, subtraction, multiplication, division
8	Decimal Notation: solving equations, solving problems, converting fractional notation to

	decimal notation
9	Graphing and Statistics: tables, pictographs, bar graphs, line graphs, averages, medians, modes
10	Ratio and Proportion: introduction, rates, proportion, geometric applications
11	Percent Notation: introduction
12	Percent Notation: solving percent problems, applications of percents, consumer applications
13	Geometry and Measures: linear measurement, perimeter and area, temperature measurement
14	Metric Measurements: linear, volume, weight
15	Review and final exams
16	Performance evaluation and final exam re-testing

II. Course Objectives*:

RSM 0730 is a mathematics course in the TBR mandated R/D program. The program is designed to provide students with skills which support their success in college-level curricula and enable them to achieve their educational goals. Students? results and final exam tests will show 80% competencies. Students who complete the R/D program will experience about the same or better success in college-level classes as students who did not enroll in developmental courses.

A.   Demonstrate an understanding of number systems. III

B.   Perform operations with whole numbers, fractions, and decimals. V

C.   Solve problems using equations and graphs. I, III

D.   Solve ratio, proportions, and percentage problems. III

E.   Solve basic geometry problems involving perimeter, area, and linear measures. II,   III

F.   Use a calculator when appropriate. GE-V.6

*Roman numerals after course objectives reference goals of the Math department.

III. Instructional Processes*:

Students will:

1.   Use calculator with fraction capability. *Technological Literacy Outcome*

2.   Actively engage in a statistical modeling project that requires real life data.   *Transitional Strategy, Numerical Literacy Outcome, Active Learning Strategy, Personal Development Outcome*

3.   Collaboratively solve authentic real-life decimal and percent problems. *Numerical Literacy Outcome, Active Learning Strategy*

*Strategies and outcomes listed after instructional processes reference Pellissippi State☐s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Given a word name for a number less than one billion, the student shall determine the equivalent numeral. A

2. Given a whole number with fewer than seven digits, the student shall determine the answer which represents the nearest multiple of ten, hundred, thousand, or ten thousand. A

3. Given a whole number or a decimal number, the student shall identify the digit that is in a given place. A

4. Given a problem to add either two or more whole numbers or two or more decimal numbers, the student shall solve the problem with regrouping. B

5. Given a problem to subtract either two whole numbers or two decimal numbers, the student shall solve the problem with regrouping. B

6. Given a problem to multiply a three digit number by a two digit number, the student shall solve the problem with regrouping. B

7. Given a problem to multiply two decimal numbers, each having no more than three decimal places, the student shall solve the problem. B

8. Given a problem to divide a four-digit number by a one-digit number, the student shall solve the problem for which the answer may have a remainder. B

9. Given a problem to divide a decimal number by whole number, the student shall solve the problem. B

10. Given a problem to add three fractions with unlike denominators, including mixed numbers, the student shall solve the problem and express the answer in simplest form. B

11. Given a problem to subtract two fractions with unlike denominators, one of which may be a mixed number, the student shall solve the problem and express the answer in simplest form. B

12. Given a problem to multiply or divide two fractions, including mixed numbers, the student shall solve the problem and express the answer in simplest form. B

13. Given a simple fraction, a decimal number, or a percent, the student shall determine either of the other equivalent forms of the number. D

14. Given a problem that involves finding the percent of a number, the student shall solve the problem. D

15. Given the lengths of the adjacent sides of a rectangular figure, the student shall determine the perimeter of the area. E

16. Given a simple one-step word problem, the student shall identify the operation required for the solution of the problem. B

17. Given either customary or metric units of measurement of (1) length, (2) weight (customary) or mass (metric), or (3) volume, the student shall determine an equivalent measure within the same system. E

18. Given an equation, the student shall find an appropriate solution. C

19. Given a graph, the student shall be able to solve problems related to it. C

20. Given a problem involving integers, the student should be able to solve it. A

21. Given a complex problem, the student shall be able to solve it by using a calculator. F

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

A maximum of three attempts will be allowed per chapter or calculator tests. If a student does not achieve 80% proficiency within three attempts, he/she fails the course. Two attempts will be allowed for final exams.

Multiple Attempts: If a student requires more than one attempt to achieve the required 80% (60% on final exams) the scores on the two attempts will be averaged. The student will receive the average of the attempts or 80% (60% on finals), whichever is higher.

B. Laboratory Expectations: None

C. Field Work: None

D. Other Evaluation Methods:

Evaluation will be based on class participation, exams, and projects as outlined on the syllabus supplement distributed by the instructor.

To pass the course, the student must:
1. Achieve a course average of C or better.
2. Achieve at least 60% correct on the final exam for the course.
3. Receive an 80% proficiency on each chapter exam and each calculator exam.

E. Grading Scale:

Unless otherwise stated on syllabus supplement, the course grade will be the average of the following scores: individual chapter exams, individual calculator exams, comprehensive course final and calculator final.

A = 94 - 100
B = 87 - 93
C = 78 - 86
F = below 78

VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of Academic and Student Affairs, may have requirements that are more stringent.

B. Academic Dishonesty:

Cheating in any form will not be tolerated. The penalty for cheating is a grade of ?F? for the course.

C. Two Attempt Rule:

According to TBR policies, a student must complete this course within two semesters of enrollment. This includes grades received of A, B, C, E, F, I, or W.