Course Information

Course Title	Support Course for Contemporary Mathematics
Course Prefix, Num. and Title	NCBM 0232
Division	Math & Physical Sciences
Department	Math/College Readiness Math
Course Type	Academic General Education Course (from ACGM, but not WCJC Core)
Course Catalog Description	Intended for Non-STEM (Science, Technology, Engineering, and Mathematics) majors. Topics include introductory treatments of sets and logic, financial mathematics, probability and statistics with appropriate applications. Number sense, proportional reasoning, estimation, technology, and communication should be embedded throughout the course. Additional topics may be covered. This course is designed to help students accelerate through the developmental math sequence in one semester. It focuses on the college readiness concepts necessary to successfully complete Contemporary Mathematics concurrently. This class includes directed review, just-in-time instruction, and emphasis on math specific study skills. This course must be successfully completed with a "C" or better to satisfy TSI requirements
Pre-Requisites	TSI Placement and Advisor/Instructor Recommendation
Co-Requisites	MATH 1332 Contemporary Mathematics

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours: Lab/Other Hours	2:2:0
Equated Pay Hours	2
Lab/Other Hours Breakdown: Lab Hours	0
Lab/Other Hours Breakdown: Clinical Hours	0
Lab/Other Hours Breakdown: Practicum Hours	0
Other Hours Breakdown	0

Approval Signatures

Title	Signature	Date
Prepared by:		
Department Head:		
Division Chair:		
Dean/VPI:		
Approved by CIR:		

Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

Unit 1 – Algebraic Expressions, Equations, and Functions
Order of Operations
Linear Equations with and without Fractions
Factoring Trinomials
Solving Quadratic Equations
The Rectangular Coordinate System
Function Notation
Finding Intercepts
Understanding Slope
Graphing Linear Equations
Exponent Rules
Inverse Functions
Characteristics of Parabolas

Unit 2 – Personal Finance
Fractions, Decimals, and Percents
Percent Change
Simple Interest
Loan Amortization
Calculator Practice
Average Daily Balance

Unit 3 – Sets and Logic
Set Notation Symbols
Venn Diagrams
Intersection and Union of Sets

Unit 4 – Counting Methods and Probability
Operations on Fractions
Factorials
Basic Probability

Unit 5 – Data and Statistics
Rectangular Coordinate System
Measures of Central Tendency
Summation Notation
Working with Standard Deviations
Statistic Graphs

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:
1. Apply the language and notation of sets.
2. Determine the validity of an argument or statement and provide mathematical evidence.
3. Solve problems in mathematics of finance.
4. Demonstrate fundamental probability/counting techniques and apply those techniques to solve problems.
5. Interpret and analyze various representations of data.
6. Demonstrate the ability to choose and analyze mathematical models to solve problems from real-world settings, including, but not limited to, personal finance, health literacy, and civic engagement.

Methods of Assessment:
Final Exam (Required)

Other Methods of Assessment:
- Hour Exams
- Homework
- Quizzes
- Short Answer
- Discussion Board
- Participation
- Projects

Required text(s), optional text(s) and/or materials to be supplied by the student:

"Thinking Mathematically" by Blitzer, 7th edition; Pearson

Students must have computer access to the WCJC website, their WCJC student email and online accounts. WCJC has open computer labs, with internet access, on all campuses for students to use.

Suggested Course Maximum:

15

List any specific or physical requirements beyond a typical classroom required to teach the course.

None

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

A. Departmental Final Exam   15-30%
B. Other Course Requirements   70-85%

A = 100-90
B = 89-80
C = 79-70
D = 69-60
F = 59 or below

Curriculum Checklist:

☒**Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.

☐**Administrative WCJC Core Course**. Attach the Core Curriculum Review Forms

        ☐Critical Thinking

        ☐Communication

        ☐Empirical & Quantitative Skills

        ☐Teamwork

        ☐Social Responsibility

        ☐Personal Responsibility

☐**WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist