

**Course Information**

<b>Course Title</b>	Support Course for Contemporary Mathematics
<b>Course Prefix, Num. and Title</b>	NCBM 0232
<b>Division</b>	Math & Physical Sciences
<b>Department</b>	Math/College Readiness Math
<b>Course Type</b>	Academic General Education Course (from ACGM, but not WCJC Core)
<b>Course Catalog Description</b>	<p>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.</p> <p>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.</p>
<b>Pre-Requisites</b>	TSI Placement and Advisor/Instructor Recommendation
<b>Co-Requisites</b>	MATH 1332 Contemporary Mathematics

**Semester Credit Hours**

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

**Approval Signatures**

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

## 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:

Optional 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, 7<sup>th</sup> 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:

30

### 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. MATH 1332 Grade	25%
B. Other Course Requirements	75%

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