

**HERKIMER COUNTY COMMUNITY COLLEGE  
COURSE OUTLINE**

**DIVISION:** Business/Computer  
**COURSE TITLE:** Financial Mathematics  
**COURSE NUMBER:** MA 123  
**CREDITS:** 3 Hours (3,0)  
**GRADE TYPE:** Letter Grade  
**PREPARED/REVIEWED BY:** J. Ciccarelli  
**DATE:** Revised, Fall 2006

**COURSE DESCRIPTION**

Mathematics are applied to financial operations. Topics include interest and discounts, credit and payments, taxes, financial analysis, statistics, charting and graphing, business operations, and basic geometry.

**COURSE OBJECTIVES**

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

1. Calculate the following: (a) simple interest, compound interest, installment costs, finance charges, finance rebates, mortgage payments, (b) bank discounts and proceeds for simple discount notes, (c) sales, excise, and property taxes, and (d) annuities
2. Construct a frequency distribution;
3. Make bar, line, and circle graphs;
4. Find the mean, median, and mode for sets of data;
5. Complete and analyze income statements;
6. Prepare and analyze balance sheets using financial ratios;
7. Determine the optimum use of space;
8. Calculate area, perimeter, and volume;
9. Allocate overhead by floor space, sales value, and number of employees using geometric formulas;
10. Calculate depreciation using the straight-line method, the declining balance method, the sum-of-the-years'-digits method, and the units-of-production method for full and partial years;
11. Determine cash and trade discounts.

**COURSE OUTCOMES**

In class discussions, tests, and group word problems, the students will demonstrate a minimum 60% understanding of the following concepts in Financial Math:

1. Arithmetic
2. Algebra
3. Geometry
4. Data Analysis
5. Quantitative Reasoning

<u>TOPIC</u>	<u>MAJOR DIVISIONS OF SUBJECT MATTER</u>	<u>LECTURE HOURS</u>
I. Review of Arithmetic		6
	A. Operations	
	B. Fractions, Decimals, Percents	
	C. Algebra and Algebraic Equations	
II. Geometric and Logic Applications for Business		9
	A. Area, Volume, Perimeter	
	B. Cost/Square Foot	
	C. Allocation of Floor Space	
	D. Analyzing Productive Use of Space	
	E. Servicing Areas by Cost Effectiveness	
	F. Exam	
III. Statistics		7
	A. Mean/Median/Mode	
	B. Frequency distribution	
	C. Bar, Line, and Circle Graphs	
	D. Data Analysis	
	E. Exam	
IV. Time Value of Money		11
	A. Simple Interest	
	B. Installment Buying and Revolving Credit	
	C. Compound Interest	
	D. The Cost of Property Ownership	
	1. Installment Sales	
	E. Promissory Notes, Discounting Notes, Discounting Process	
	F. Exam	
V. Business Finance and Operations		12
	A. Depreciation	
	1. Straight-Line Method	
	2. Declining Balance Method	
	3. Sum-of-the-Years'-Digits Method	
	4. Units-of-Production Methods	
	B. Inventory Valuation and Overhead	
	C. Taxes	
	1. Sales and Excise Taxes	
	2. Property Tax	

- D. Financial Analysis
  - 1. Balance Sheet
  - 2. Income Statement
  - 3. Trend and Ratio Analysis
  
- E. Investments
  - 1. Stocks
  - 2. Bonds
  - 3. Annuities and Sinking Funds
  
- F. Exam

TOTAL

45

### **COURSE REQUIREMENTS**

Please see individual instructor's syllabus.

### **EVALUATION/GRADING**

Please see individual instructor's syllabus.

### **TEXTBOOK**

Please see individual instructor's syllabus.

### **CLASSROOM POLICIES**

Cell phones, food, drink, and inappropriate language are not allowed in class. Regular attendance and punctuality are expected.

Please see individual instructor's syllabus for a more detailed explanation of classroom policies.