



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Natural Sciences and Business

COURSE: BUS 1230 Math for Business and Finance

Date: Fall 2019

Credit Hours: 3

Prerequisite(s): None

Delivery Method: **Lecture** **3 Contact Hours (1 contact = 1 credit hour)**
 Seminar **0 Contact Hours (1 contact = 1 credit hour)**
 Lab **0 Contact Hours (2-3 contact = 1 credit hour)**
 Clinical **0 Contact Hours (3 contact = 1 credit hour)**
 Online
 Blended

Offered: **Fall** **Spring** **Summer**

IAI Equivalent –**Only for Transfer Courses**-go to <http://www.itransfer.org>:

CATALOG DESCRIPTION:

A review of the fundamental mathematical processes, fractions, and percentage. A study of discounts, commissions, depreciation, overhead, interest, bank discount, amortized mortgage loans, balance sheet ratios, statistical measures, financial statements, graphs, stocks and bonds, solving for the unknown, and time value of money.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

Upon completion of the course, the student will be able:

[Choose up to three goals that will be formally assessed in this course.]

- To apply analytical and problem solving skills to personal, social, and professional issues and situations.
- To communicate successfully, both orally and in writing, to a variety of audiences.
- To construct a critical awareness of and appreciation for diversity.
- To understand and use technology effectively and to understand its impact on the individual and society.
- To develop interpersonal capacity.
- To recognize what it means to act ethically and responsibly as an individual and as a member of society.
- To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
- To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

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

1. Be able to use whole numbers to dissect and solve word problems.
 - 1.1 Read, Write, and Round whole numbers
 - 1.2 Add and subtract whole numbers
 - 1.3 Multiply and divide whole numbers
2. Be able to use Fractions.
 - 2.1 Conversion of all fractions
 - 2.2 Add and subtract fractions
 - 2.3 Multiply and divide fractions
3. Be able to use Decimals.
 - 3.1 Add, subtract, multiply, and divide decimals
 - 3.2 Convert decimals into fractions and fractions into decimals
4. Understand the Banking Process.
 - 4.1 Read and understand a bank statement
 - 4.2 Reconcile a checkbook
5. Be able to solve for the unknown in algebraic form.
 - 5.1 Solve algebraic equations
 - 5.2 Solve word problems using algebra
6. Be able to use Percents and their applications.
 - 6.1 Convert fractions and decimals to percents
 - 6.2 Solve word problems using the Portion formula
7. Be able to use Trade and Cash Discounts
 - 7.1 Be able to calculate a single and chain trade discount

- 7.2 Be able to calculate cash discounts, credit terms, and partial payments
- 8. Be able to calculate Markups and Markdowns.
 - 8.1 Be able to calculate markups based on cost
 - 8.2 Be able to calculate markups based on price
 - 8.3 Be able to calculate markups using perishable items
- 9. Be able to calculate Payroll.
 - 9.1 The student will be able to calculate payroll deductions
- 10. Be able to calculate Simple Interest, Compound Interest, and Simple Discount Notes.
- 11. Be able to calculate Cost of Home Ownership.
 - 11.1 Create an amortization schedule
 - 11.2 Understand different types of mortgages and monthly payments
- 12. Be able to calculate Inventory and Overhead
 - 12.1 Be able to calculate inventory costs using FIFO, LIFO, Weighted Average, and Specific Identification
- 13. Be able to calculate Sales, Excise, and Property Tax.
- 14. Be able to calculate Insurance
 - 14.1 Calculate Life Insurance
 - 14.2 Calculate Fire Insurance
 - 14.3 Calculate Auto Insurance
- 15. Be able to calculate Stocks, Bonds, and Mutual Funds
 - 15.1 Know how to buy and sell stock with commission
 - 15.2 Know the difference between limit order and market order
- 16. Be able to calculate Business Statistics
 - 16.1 Know how to calculate and use mean, median, and mode
 - 16.2 Know how to create a frequency distributions

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
To apply analytical and problem solving skills to personal, social, and professional issues and situations.	<ul style="list-style-type: none"> • Be able to solve for the unknown in algebraic form • Be able to use Trade and Cash Discounts • Be able to calculate Markups and Markdowns • Be able to calculate Payroll • Be able to calculate Stocks, Bonds, and Mutual Funds • Be able to calculate Simple Interest, Compound Interest, and Simple Discount Notes

COURSE TOPICS AND CONTENT REQUIREMENTS:

See above

INSTRUCTIONAL METHODS:

Lecture
Discussion
Hands-On Activities
Demonstrations
Group Projects
Simulation
Case Projects: both individual and team approach.
Presentations: both student presentations and outside professionals.
DVD's

INSTRUCTIONAL MATERIALS:

Textbook
Instructor's Manual
Textbook Web Page
Listserv for Instructors
Simulation Exercises
Internet

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

A= 90-100
B= 80-89
C= 70-79
D= 60-69
F= 0-59

Tests
Final Exam
Homework
Quizzes
Attendance
Participation
Simulation checks

OTHER REFERENCES

Wall Street Journal
Kiplinger's Magazine
Business Week
Forbes
Barron's
Textbook Web Page
Home Library (Magazines/Books)

Course Competency/Assessment Methods Matrix

(Dept/# Course Name)		Assessment Options																																
For each competency/outcome place an "X" below the method of assessment to be used.	Assessment Options																																	
	Assessment of Student Learning	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment		
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D								
1. Be able to use whole numbers to dissect and solve word problems.			X	X		X	X	X	X		X		X		X		X		X				X										X	
1.1 Read, Write, and Round whole numbers			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
1.2 Add and subtract whole numbers			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
1.3 Multiply and divide whole numbers			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
2. Be able to use Fractions.			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
2.1 Conversion of all fractions			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
2.2 Add and subtract fractions			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
2.3 Multiply and divide fractions			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X
3. Be able to use Decimals.			X	X		X	X	X	X		X		X		X		X		X				X									X	X	X

3.1 Add, subtract, multiply, and divide decimals			X	X		X	X	X	X		X		X		X								X	X				X
3.2 Convert decimals into fractions and fractions into decimals			X	X		X	X	X	X		X		X		X									X	X			X
4. Understand the Banking Process.			X	X		X	X	X	X		X		X		X									X	X			X
4.1 Read and understand a bank statement			X	X		X	X	X	X		X		X		X									X	X			X
4.2 Reconcile a check book			X	X		X	X	X	X		X		X		X									X	X			X
5. Be able to solve for the unknown in algebraic form.			X	X		X	X	X	X		X		X		X									X	X			X
5.1 Solve algebraic equations			X	X		X	X	X	X		X		X		X									X	X			X
5.2 Solve word problems using algebra			X	X		X	X	X	X		X		X		X									X	X			X
6. Be able to use Percents and their applications.			X	X		X	X	X	X		X		X		X									X	X			X
6.1 Convert fractions and decimals to percents			X	X		X	X	X	X		X		X		X									X	X			X
6.2 Solve word problems using the Portion formula			X	X		X	X	X	X		X		X		X									X	X			X
7. Be able to use Trade and Cash Discounts			X	X		X	X	X	X		X		X		X									X	X			X
7.1 Be able to calculate a single and chain trade discount			X	X		X	X	X	X		X		X		X									X	X			X
7.2 Be able to calculate cash discounts, credit terms, and partial payments			X	X		X	X	X	X		X		X		X									X	X			X
8. Be able to calculate Markups and Markdowns.			X	X		X	X	X	X		X		X		X									X	X			X
8.1 Be able to calculate markups based on cost			X	X		X	X	X	X		X		X		X									X	X			X
8.2 Be able to calculate markups based on price			X	X		X	X	X	X		X		X		X									X	X			X
8.3 Be able to calculate markups using perishable items			X	X		X	X	X	X		X		X		X									X	X			X

9. Be able to calculate Payroll.			X	X		X	X	X	X		X		X		X		X											X	X					X	
9.1 The student will be able to calculate payroll deductions			X	X		X	X	X	X		X		X		X		X												X	X					X
10. Be able to calculate Simple Interest, Compound Interest, and Simple Discount Notes.			X	X		X	X	X	X		X		X		X		X												X	X					X
11. Be able to calculate Cost of Home Ownership.			X	X		X	X	X	X		X		X		X		X												X	X					X
11.1 Create an amortization schedule			X	X		X	X	X	X		X		X		X		X												X	X					X
11.2 Understand different types of mortgages and monthly payments			X	X		X	X	X	X		X		X		X		X												X	X					X
12. Be able to calculate Inventory and Overhead			X	X		X	X	X	X		X		X		X		X												X	X					X
12.1 Be able to calculate inventory costs using FIFO, LIFO, Weighted Average, and Specific Identification			X	X		X	X	X	X		X		X		X		X												X	X					X
13. Be able to calculate Sales, Excise, and Property Tax.			X	X		X	X	X	X		X		X		X		X												X	X					X
14. Be able to calculate Insurance			X	X		X	X	X	X		X		X		X		X												X	X					X
14.1 Calculate Life Insurance			X	X		X	X	X	X		X		X		X		X												X	X					X
14.2 Calculate Fire Insurance			X	X		X	X	X	X		X		X		X		X												X	X					X
14.3 Calculate Auto Insurance			X	X		X	X	X	X		X		X		X		X												X	X					X
15. Be able to calculate Stocks, Bonds, and Mutual Funds			X	X		X	X	X	X		X		X		X		X												X	X					X
15.1 Know how to buy and sell stock with commission			X	X		X	X	X	X		X		X		X		X												X	X					X

15.2 Know the difference between limit order and market order			X	X		X	X	X	X		X		X	X		X											X	X				X	
16. Be able to calculate Business Statistics			X	X		X	X	X	X		X		X	X		X												X	X				X
16.1 Know how to calculate and use mean, median, and mode			X	X		X	X	X	X		X		X	X		X												X	X				X
16.2 Know how to create a frequency distribution			X	X		X	X	X	X		X		X	X		X												X	X				X