Instructor's Name:

Office Location:

Office Hours:

Office Phone:

E-mail:

Course Description
A review of basic arithmetic, decimals, percentages and applications, together with a study of topics such as simple and compound interest, discounting notes, installment buying, and purchase discounts and markups. Designed for those in the business curriculum.

Illinois Articulation Initiative (IAI) number: N/A

Credit and Contact Hours:
Lecture 3
Lab 0
Credit Hours 3

Prerequisites: Satisfactory placement test score or "C" or better in MATH 090 or MATH 091 or equivalent. Not intended for transfer.

Books, Supplies, and Supplementary Materials

A. Textbooks

Required: Pearson Custom Business Skills w/MML, 2nd Ed., 2015; Miller, Salzman, Clendenen

Publisher: Prentice-Hall

B. Other Required Materials

Scientific calculator

Methods of Instruction:
Lecture
Online
Student Learning Outcomes: General Education Student Learning Outcomes:
Students will demonstrate the ability to accurately apply correct mathematical methods and techniques in various applications such as applied sciences, theoretical mathematics, physics, natural sciences and other applied sciences.

Objectives

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

1. Identify proper fractions, improper fractions, and mixed numbers.
2. Learn to convert among the forms stated in one.
3. Learn to add fractions (same denominator and different denominators).
4. Find least common denominator by inspection and the prime factor form.
5. Learn to multiply and divide fractions (proper, improper, and mixed).
6. Dissect and solve a word problem.
7. Learn to convert between verbal and decimal forms of number.
8. Learn to round decimals.
9. Learn to complete the conversion of decimal fractions and mixed decimals to fractions.
10. Learn shortcuts in multiplication and division of decimals.
11. Dissect and solve a word problem.
12. Define and state the purpose of signature cards, checks, check stubs, and deposit tickets.
13. Be able to prepare deposit tickets and write checks.
16. Be able to prepare bank reconciliation.
17. Explain “elective funds transfer” and check safekeeping.
18. Learn how a merchant completes a credit card transaction for manual and electronic deposit.
19. Learn conversions among equivalent forms of decimals, fractions, and percents (i.e., $30\% = 0.3 = \frac{3}{10}$).
20. List and define key elements in the formula $\text{Portion} = \text{Base} \times \text{Rate}$.
21. Solve the percent formula given any two out of three unknowns.
22. Calculate rate of percent increases and decreases.
23. Define and explain need for trade discounts.
24. Calculate amount of trade discount with single discount and with chain discount.
25. Define and use net price equivalent rate.
26. Compare and contrast cash discounts and trade discounts.
27. Explain FOB shipping point and FOB destination.
28. Be familiar with typical discount periods and credit periods.
29. Calculate dollar amounts of markup and percent markup a) on cost, b) on selling price.
30. Solve for selling price given cost and markup is based a) on cost, b) on selling price.
31. Solve for cost when selling price and desired level of markup a) on cost is known, b) on selling price is known.
32. Convert markup percent on selling price to markup percent on cost.
33. Convert by formula markup percent of cost to markup percent of selling price.
34. Calculate amount of markdown.
35. Set a selling price per unit to cover loss from spoilage.
36. Define principal, rate, time and interest.
37. Calculate simple interests for months and years.
38. Calculate interest by: a) Exact time, exact interest, b) Exact time, ordinary interest.
39. Explain the advantage of borrowing to get a cash discount.
40. Calculate ordinary interest by the 6%, 60-day method or its variations.
41. Calculate an unknown in the simple interest formula: I=PRT.
42. Calculate the interest credit under the U.S. Rule and Merchant's Rule.
43. Identify parts of a promissory note.
44. Differentiate between interest-bearing notes and noninterest-bearing notes.
45. Calculate bank discount and proceeds for simple discount notes.
46. Contrast the simple discount note and the simple interest note.
47. Calculate true rate of interest for a simple discount note.
48. Calculate maturity value, bank discount, and proceeds on an interest-bearing note for maturity.
49. Identify and complete the four steps of the discounting process.
50. Compare and contrast compound and simple interest.
51. Calculate compound interest manually and by tables.
52. Compute effective rate.
53. Calculate manually and by tables the value of ordinary annuity.
54. Calculate manually and by tables the value of an annuity rate.
55. For the purchase of a pickup truck, calculate amount financed, total interest deferred payment, APR (by formula and table), and the monthly payments.
56. Calculate rebate by Rule of 78 as well as final payoffs.
57. Calculate finance charges on revolving charge and credit card accounts.
58. Discuss the effect of interest rates and down payments on mortgages one can afford.
59. Identify other items besides principle and interest that a homebuyer should consider.
60. Use an amortization chart to compute monthly payment.
61. Calculate total cost of interest.
62. Calculate and identify the interest and principal portion of each monthly payment.
63. Prepare an amortization schedule.
64. Compute sales tax or goods sold involving trade and cash discounts and shipping charges.
65. Explain and calculate excise tax.
66. Define assessed valuation and mills.
67. Calculate tax rate.
68. Compute property tax.
69. Define and calculate life insurance premiums and discuss the advantages and disadvantages of term, straight life, 20-payment life, and 20-year endorsement.
70. Explain and calculate premium for fire insurance.
71. Explain and calculate cost or premiums and refunds using short rate table.
72. Explain and calculate loss when coinsurance is not met.
73. Explain factors determining cost of auto insurance.
74. Compare and contrast bodily injury, comprehensive and collision.
75. Calculate annual premiums cost of auto insurance for a typical driver.
76. Read and explain stock quotations.
77. Differentiate between round and odd lots.
78. Calculate dividends on preferred (cumulative) and common stock as well as return on investment.
79. Read and explain bond quotations.
80. Compare and contrast bond yields vs. bond premiums and bond discounts.
81. Compute the future value of an ordinary annuity.
82. Compute compound interest.

**TOPICAL OUTLINE**

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Topic or Class Activity</th>
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<tbody>
<tr>
<td>1 &amp; 2</td>
<td>Whole numbers, decimals, and fractions</td>
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<tr>
<td>3 &amp; 4</td>
<td>Percents and bank services</td>
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<td>5 &amp; 6</td>
<td>Mathematics of buying</td>
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<td>7 &amp; 8</td>
<td>Mathematics of selling</td>
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<td>9</td>
<td>Simple interest</td>
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<td>10</td>
<td>Compound interest</td>
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<td>11 &amp; 12</td>
<td>Annuities</td>
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<td>13</td>
<td>Stocks and bonds</td>
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<td>14 &amp; 15</td>
<td>Business and consumer loans</td>
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<td>16</td>
<td>Taxes and insurance</td>
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Chapters 1 - 11 Pearson Custom Business Skills
Graded Assignments and Policies

Graded Assignments
In class Quizzes 0 – 20%
Participation 0 - 5 %
Projects 0 – 20%
Homework 0 – 30%
Tests 50 - 85%
Final 15 – 30%

Grading Policy
The individual instructor will determine which items he or she considers essential for the student to memorize without error and test accordingly.

Each instructor will set minimum standards for performance on tests.

Major Tests and Quizzes
The individual instructor will determine which items he or she considers essential for the student to memorize without error and test accordingly. Each instructor will set minimum standards for performance on tests. A comprehensive final examination will be given.

Classroom Policies and Procedures

General Information

Attendance Policy

Make-up Policy

Extra-credit Policy

Final Exam Information
A comprehensive final examination will be given.

Academic Honor Code
The objective of the academic honor code is to sustain a learning-centered environment in which all students are expected to demonstrate integrity, honor, and responsibility, and recognize the importance of being accountable for one’s academic behavior.

College Statement about grades of “F” and Withdrawal from Class
Students may withdraw from a course by processing an add/drop form during regular office hours through the Registration and Records Office at Main Campus or Romeoville Campus, or by phone at 815-744-2200. Please note the withdrawal dates listed on your bill or student schedule. Every course has its own withdrawal date. Failure to withdraw properly may result in a failing grade of “F” in the course.

At any time prior to the deadline dates established, an instructor may withdraw a student from class because of poor attendance, poor academic performance or inappropriate academic behavior, such as, but not limited to, cheating or plagiarism.
**Intellectual Property**
Students own and hold the copyright to the original work they produce in class. It is a widely accepted practice to use student work as part of the college’s internal self-evaluation, assessment procedures, or other efforts to improve teaching and learning and in promoting programs and recruiting new students. If you do not wish your work to be used in this manner, please inform the instructor.

**Student Code of Conduct**
Each student is responsible for reading and adhering to the Student Code of Conduct as stated in the college catalog.

**Sexual Harassment** Joliet Junior College seeks to foster a community environment in which all members respect and trust each other. In a community in which persons respect and trust each other, there is no place for sexual harassment. JJC has a strong policy prohibiting the sexual harassment of one member of the college community by another. See the Catalog or Student Handbook.

**Student Support** [http://jjc.edu/services-for-students/pages/default.aspx](http://jjc.edu/services-for-students/pages/default.aspx)

   Student Accommodations and Resources (StAR): If you need disability-related accommodations, specialized tutoring, or assistive technology in this class, if you have emergency medical information you wish to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class. New students should request accommodations and support by scheduling an appointment with the Student Accommodations and Resources (StAR) Office, Campus Center 1125, (815) 280-2230.

b. Tutoring: [http://jjc.edu/tlc/Pages/default.aspx](http://jjc.edu/tlc/Pages/default.aspx)

c. Counseling and Advising: [http://www.jjc.edu/counselingadvising/Pages/default.aspx](http://www.jjc.edu/counselingadvising/Pages/default.aspx)

d. Academic Resources: [http://www.jjc.edu/academic-resources/Pages/default.aspx](http://www.jjc.edu/academic-resources/Pages/default.aspx)

e. Support Programs and Services: [http://www.jjc.edu/support-programs-services/Pages/default.aspx](http://www.jjc.edu/support-programs-services/Pages/default.aspx)

f. Technology Support: [http://jjc.edu/services-for-students/Pages/technology-support.aspx](http://jjc.edu/services-for-students/Pages/technology-support.aspx)

g. My Degree Progress: My Degree Progress is a computerized system to track a student’s progress toward graduation. The report indicates every course and places these courses into their appropriate category as a General Education, Major Course, or Elective, according to the degree requirements. This tool is useful for preparing before an advising appointment, for planning, for registering, and for checking that the student is on track for graduation. [https://eresources.jjc.edu](https://eresources.jjc.edu)
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<th>Reviewed by:</th>
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<td>Prof. Jean McArthur</td>
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<tr>
<td>Mathematics Department</td>
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