Mathematics

Course: MAT 110 Business Mathematics Credit: 4 Quarter Hours Method of Delivery: eLearning

Instructor: Taki Nagase Email: <u>tnagase@midstate.edu</u> Office Hours: Arranged

Prerequisite: MAT 001 or placement based on Entrance Exam Score

Text: Contemporary Mathematics for Business and Consumers, 7th Ed.

ISBN: 9781285189758

Author: Brechner/Bergeman

Publisher: Cengage

Materials needed for this course: Scientific calculator

Course Description: The student has the opportunity to develop skills in business math transactions. Upon successful completion, the student will be able to compute percents, discounts, markups and markdowns on retail prices, payroll, simple interest, maturity value, discount notes, and the metric system.

Topics: Solving for the unknown, percents, discounts, retail/wholesale markups and markdowns, payroll, simple interest, and maturity value

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

- 1. Employ, with accuracy, the fundamental processes of mathematics.
- 2. Identify equations and solve problems for the unknown.
- 3. Illustrate and understanding of percents and their applications.
- 4. Employ trade and cash discounts and markups.
- 5. Recognize markups and markdowns on retail prices.
- 6. Illustrate an understanding of payrolls and their deductions.
- 7. Solve problems for simple interest and maturity value.

Midstate Grading scale:

90 -	100	Α
80 -	89	В
70 -	79	С
60 -	69	D

0 - 59 F

Academic Integrity:

Academic integrity is a basic principle of the College's function. Midstate College students are expected to maintain a high level of academic honesty. Contrary actions may result in penalties such as failure of the assignment(s), a lesser grade on assignment(s), failure of the course and/or suspension from the College. The course instructor will review all submitted documents and supporting evidence in connection to the infraction. The course instructor will also review the student's personal file for other notifications of academic dishonesty before determining the level of action to be applied. The course instructor will complete the Academic Dishonesty Report form to document and describe the incident and

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actions taken, then kept on file. The student may appeal the decision to administration, whose decision will be final.

The following (**plagiarism**, **cheating**, **deception**, **sabotage**, **computer misuse and copyright infringement**) are included in the actions Midstate College considers behavior contrary to the academic integrity policy; however, the policy is not limited to these examples. Further discussion of consequences regarding academic dishonesty are addressed in the Student Handbook.

Plagiarism:

Plagiarism is using another person's words, either by paraphrase or direct quotation, without giving credit to the author(s). Plagiarism can also consist of cutting and pasting material from electronic sources by submitting all or a portion of work for assignment credit. This includes papers, computer programs, music, sculptures, paintings, photographs, etc. authored by another person without explicitly citing the original source(s). These actions violate the trust and honesty expected in academic work. Plagiarism is strictly against the academic policy of Midstate College. Its seriousness requires a measured, forceful response which includes consequences for inappropriate and/or no citation.

In courses containing writing assignments, the College promotes the use of Turnitin which compares the student's writing against previously submitted papers, journals, periodicals, books, and web pages. Students and instructors can use this service to reduce the incidence of plagiarism. This electronic resource has been found to conform to legal requirements for fair use and student confidentiality. It is able to provide a report to the student indicating the parts of the assignment that match.

Student Success and Tutoring:

Contact Student Success: Room 110; (309) 692-4092, ext. 1100; studentsuccess@midstate.edu; The Office of Student Success offers help in the following areas:

- Tutoring: Tutoring is encouraged for students who are doing their best to complete assignments yet still are experiencing difficulty in this course. Tutoring may be provided by the instructor outside of scheduled class times or through the office of Student Success.
- Writing assignment assistance: This may include learning how to conduct research; using proofreading tools such as Turnitin; outlining a topic; and applying MLA/APA standards.
- Math, accounting, and computer skills (including file management).
- Test-taking techniques.
- Note-taking skills development.
- Study skills development.
- Time management.

Participation Requirements/Policies and Procedures:

- 1. Attendance: Your attendance will be determined for each week by whether or not you submit substantial gradable work. Absences will result in a reduction of the final course grade.
- 2. **Summaries:** Online weekly summaries are meant as an alternative for classroom discussion, and therefore are required for eLearning. This summary should be an overview of ONE TOPIC from

what you learned from ONE section of the reading (for example, how find a common denominator from Chapter 2), and should be more than just a list of rules. Please attempt to EXPLAIN the material (with examples, if needed), as though you were explaining it to a friend or fellow student. **IMPORTANT:** Each student completing a summary MUST explain a different topic – you may not summarize a topic that has already been explained and posted!

- 3. **Homework:** Weekly homework will be assigned on the material covered that week and will be due the following week. You must SHOW WORK on all problems to receive credit on the homework!
- 4. Quizzes & Exams: Quizzes will be given weekly. There will be 2 exams given a midterm and a final. You MUST show work in order to receive credit for a correct answer. Correct answers with no work will receive ZERO points. <u>No makeups are given for quizzes and exams</u> without extreme extenuating circumstances, and I will require documentation.
- 5. Late Work: Late assignments will be accepted for up to one week following the due date, with a 50% penalty. This applies ONLY to homework and quizzes late submissions of the midterm and/or final will NOT be accepted! Assignments turned in more than one week late will receive no credit.

Grading Specifications:

Attendance/participation:	20%	
Homework:	30%	
Quizzes:	20%	
Exams:	30%	(Midterm and Final)

Instructions for submitting work:

All homework, quizzes, and exams must be scanned (as a Word or pdf file) and uploaded to their respective dropboxes by 8 am Monday mornings. Summaries can be typed directly into the forum, or you can upload a scanned/typed file.

Policies and Procedures:

This is a tentative syllabus and it is subject to change at the discretion of the instructor.

Week-by-Week: Week 1 Topics: Introduction, Review Chapters 1, 2, and 3 Objectives: Become familiar with the Joule learning system, Review basic math topics Assignments: Weekly Summary Week 1 Quiz Homework: Every third problem (ex: 1, 4, 7...) from pg. 26 1-22, pg. 60 1-25, pg. 86 6-33

Week 2

Topics: Chapter 4: Checking Accounts

Objectives: Balancing a checkbook

Assignments:

Weekly Summary Week 2 Quiz Homework: All problems pg. 118 1-7

Week 3

Topics: Chapter 5: Using Equations to Solve Business Problems Objectives: Solving for unknown Assignments: Weekly Summary

Week 3 Quiz Homework: Odds pg. 150 1-33

Week 4

Topics: Chapter 6: Percents and Their Applications in Business Objectives: Basics of percents Assignments: Weekly Summary Week 4 Quiz

Homework: Odds pg. 183 1-45

Week 5

Topics: Chapter 7: Invoices, Trade Discounts, and Cash Discounts Objectives: Calculating trade and cash discounts Assignments: Weekly Summary Week 5 Quiz Homework: Odds pg. 224 1-21

Week 6 Topics: Exam 1 Objectives: Complete exam 1 Assignments: Take midterm exam

Week 7 Topics: Chapter 8: Markup and Markdown Objectives: Calculating Markups and Markdowns Assignments: Weekly Summary Week 7 Quiz Homework: Odds pg. 258 1-15

Week 8

Topics: Chapter 9: Payroll **Objectives:** Basic payroll calculations **Assignments:** Weekly Summary Week 8 Quiz

Homework: Odds pg. 297 1-25

Week 9

Topics: Chapter 10: Simple Interest and Promissory Notes **Objectives:** Calculating simple interest and understanding note transactions **Assignments:** Weekly Summary Week 9 Quiz Homework: Odds pg. 336 1-37

Week 10

Topics: Chapter 11: Compound Interest and Present Value **Objectives:** Calculating compound interest and present value **Assignments:** Weekly Summary

> Week 10 Quiz Homework: Odds pg. 364 1-39

Week 11

Topics: Chapter 12: Annuities Objectives: Calculating present & future values for annuities Assignments: Weekly Summary Week 11 Quiz Homework: Worksheet Week 12

Topics: Exam 2

Objectives: Complete exam 2 covering material from Chapters 8 – 12 **Assignments:** Take final exam