

MATH 120: Business Mathematics

Springfield College - Spring 2006 - MWF 11:00- 11:50 or TR 1-2:15

Instructor: Andrew B. Perry, Ph.D.

Office: Schoo 118

Office Hours:

Mon/Wed/Fri 12:00- 1:00 PM

Thursday 9:30-11:30 AM

Also available by drop-in or appointment

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Course Description : This course covers topics such as simple interest, discount, compound interest, and depreciation. Reasoning, analysis, and math skills are emphasized. This course is primarily designed for business management majors.

Prerequisites: College Algebra, or the equivalent

Textbook: *Mathematics for Business and Life*, John Webber, 3rd edition, Olympus Publishing, ISBN 0-9716809-7-3

Grading Procedures: Final grades will be computed as follows:

Three Tests ... 60 % (each worth 20 %)

Final Exam ... 30 %

Homework ... 10 %

Attendance ... may affect grade - see below

Students will be guaranteed minimum grades according to the following schedule:
95 % = A ; 90 % = A- ; 87 % = B+ ; 83 % = B ; 80 % = B- ; 77 % = C+ ; 73 % = C ; 70 % = C- ; 67 % = D+ ; 63 % = D ; 60 % = D-

Class Web Sites:

We will use the **Manhattan** course management system . At the beginning of the semester please go to www.spfldcol.edu , and follow the links to this class (either current students-manhattan online classwork- etc., or through the link on the my sc web page). Make sure you can log into the virtual classroom, and see the professor or ITS as soon as possible if there are any difficulties.

I also have my own web site **www.professorperry.com** , which has various useful information about myself and this class, as well as useful links.

College Attendance Policy :

In accordance with the Springfield College Student Handbook: "Students who incur legitimate unavoidable absences because of participation in certain official and approved College activities, or because of illness, should be granted an "excused" absence according to the following guidelines.

- Participation in athletic activities away from campus which are approved by the athletic director and on record at the Office of the Dean of Students.
- Participation in other curricular or co-curricular activities approved by a faculty or staff member and the Dean of Students. This also must be on record at the Office of the Dean of Students.
- An illness confirmed by documentation of the Student Health Center, on record at the Dean of Students.
- Personal emergency reported to the Dean of Students within twenty-four hours of return to class.

If a student misses a class meeting for any reason, he or she is still responsible for the material covered. If a student is aware that circumstances will prevent class attendance on a particular day, she or he should contact the faculty member directly in advance of the absence. If the faculty member is not available, the student should contact the appropriate department and leave a message either through voice mail for the faculty member or with the department chairperson or secretary. Students are responsible for explaining their absences to their professors. In case of absences for circumstances other than illness or unforeseen emergency, the student is required to make arrangements for make up of assignments (or exams) with the professor in advance of the absence."

Specific Attendance Policy For This Course: In addition, the course in which you are enrolled is subject to the following attendance guidelines.

- Students must be prompt. Once the lecture has started, students who enter must do so quietly without disrupting the class. Repetitive tardiness for class will be reported to the Dean of Students.
- Tardiness of 10 minutes or more will count as an absence
- Make-up exams will be given only to those students who can provide written documentation that justifies the student's absence at the scheduled time for the exam. If the student is unable to supply written documentation for his/her absence at a scheduled exam, then the student will receive a zero for that exam.

All absences, excused or otherwise, must be made up with alternate makeup work. If you miss class, please complete the makeup assignment posted on the Manhattan web site. The due date is one week after the missed class. Failure to make up an absence within the one week time limit will result in a 2 % deduction from the student's final grade (or a 10 % deduction from the student's next test, which has the same effect on the final grade.) If extenuating circumstances are present, and additional time is needed to complete the makeup assignment for some reason, then up to one (1) additional week will be allowed, for a total of two weeks, at the professor's discretion. If makeup work is completed **after** the due date for makeup work, it will be counted for half credit, so that only 1 % is deducted from the student's final grade.

- The first six (6) physical absences of each individual student will be allowed to be made up for credit with no questions asked. Students are not required to explain or justify these absences. I will assume that you would not miss class without a good reason.
- Any student who misses more than six (6) classes will lose an additional 3 points (3 %) off of his or her final grade per absence beyond the first six, unless the student can convince the professor that **all** seven or more absences during the semester were excusable.

Perfect or nearly perfect attendance will be considered when final grades are assigned, especially in the case of borderline grades.

Late Submission of Homework Assignments: Students may submit up to three (3) homework assignments late during the semester for full credit, but **only** if these assignments are received by the **beginning of the next class meeting** after the due date. If more than three assignments are submitted (no more than one class period late), they may be subject to a small penalty at the discretion of the instructor, depending on extenuating circumstances.

Any work submitted more than one class period late will receive a grade of ZERO PERCENT (0 %) unless prior arrangements had been made with the instructor in advance of the due date.

Approximate Examination Dates:

Regular exams: mid to late February; late March; mid to late April

Final exam:

MWF 10-11 AM Section: Monday May 8, 10:15 AM - 12:15 PM

TR 1-2:15 PM Section: Thursday, May 4, 2:45 - 4:45 PM

MWF students may take the earlier exam if space permits

(Exact examination dates will be announced in class.)

Classroom Format: Lecture, Problem Solving

Course Outcomes:

1. Students will be able to calculate simple interest, and solve complex problems related to the topic.
2. Students will be able to calculate trade discounts, and solve complex problems related to the topic.
3. Students will be able to calculate compound interest, and solve complex problems related to the topic.
4. Students will be able to calculate depreciation using various methods.
5. Students will be able to compute inventory valuation using various valuation methods.
6. Students will be able to perform calculations related to the mathematics of mortgages, consumer loans, and financial investments.
7. Students will be able to reason mathematically, and show increased mathematical reasoning ability.

Assessment of Outcomes: Homework, Exams

Course Outline:

1. Review of Basic Arithmetic and Algebra (2 weeks)
2. Simple Interest, Trade Discounts, and Related Topics(2 weeks)
3. Compound Interest, Present Value, Future Value and Related Topics (4 weeks)
4. Depreciation (2 weeks)
5. Inventory Valuation (1 week)
6. Mathematics of Mortgages, the Stock Market, Taxation, and Other Applications of Business Mathematics (3-4 weeks)

Statement on Academic Honesty : Academic dishonesty of any sort will not be tolerated. Students cheating on exams or engaged in any other improper behavior will be reported to the Dean of Students for appropriate disciplinary action, and at the instructor's discretion, will normally receive a grade of F for the course.

Statement on Classroom Decorum : Students are expected to behave in an adult manner during class time. No eating or drinking is permitted in computer labs. If students must talk to one another during a lecture, it should be very quiet. Students creating a disturbance will be asked to leave class.

Class cancellation due to inclement weather: IF THERE IS INCLEMENT WEATHER ON A DAY THAT AN EXAM HAS BEEN SCHEDULED, THEN THE EXAM WILL BE ADMINISTERED AT THE NEXT CLASS MEETING. Check for class cancellations by calling the school closing information line at 748-5999, or by referring to the SC Cable TV station, or by checking announcements aired on radio stations WHYN, WAQY, WTTT, WNNZ, WHMP, and WMAS or television stations Channel 22 and Channel 40, or WWLP.com. You may possibly also be able to find class cancellation information on our Manhattan web site.

Statement on Special Needs: If you have a documented physical, learning, or psychological disability on record with the Director of Student Support Services (748-3768), you may be eligible for reasonable academic accommodations to help you succeed in this course. It is your responsibility to request such accommodations in advance and to provide appropriate documentation to the Director of Student Support Services. Please let me know of your request as soon as possible, so that I can work with you and the director to arrange for reasonable accommodations.

College Policies on Attendance and Academic Honesty: See the *College Catalog* or the *Student Handbook* for the complete text of these policies.

Tentative Homework Assignments

- Necessary Changes To Be Announced In Class

CR = CHAPTER REVIEW exercises which are directly at the end of each chapter (NOT the problems in the appendix)

Part I: Brief Review of Basic Mathematics (2 weeks)

Equations (Ch.3) — CR 6-42 multiples of 3 ;45,46,47,48

Percents (Ch.4) — CR 4-36 multiples of 4 ; 41,42,43,44,45,46,47,48

Basic Statistics (Ch. 23.1) — CR 4,5,6,7,8,9,10

Graphing (Ch. 23.2) — CR 11,12,13,14,15

Part II: Survey of Business Mathematics (approx. 10 weeks)

Trade and Cash Discounts (Ch.5) 1-9 all; 10-14 all; 21,22,23,25-28all

Markup and Markdown (Ch.6) — CR 3-27 multiples of 3; 29,30,40,41,42,43

*Simple and Compound Interest (Ch. 8) CR 1-8 all; 12,15,21; 26-29 all; 30,34,37,38,40,43,44,45,46

Time Value of Money Supplement, Assignment A: pages 216-221 1-13 all

Time Value of Money Supplement, Assignment B: pages 216-221 14-26 all

Inventory Valuation (Ch. 18.1) 2,3,4,5,6,7

Depreciation (Ch. 19) 1-13 all; 18,19,22,23,24,32,33,34,35

Taxes (Ch.20) 3,4,5,6,7,8,12,13,20,21,23,24,25,26

Part III: In-Depth Explorations- Lecture/Handouts/Internet Only,

No Text- (approx. 2 weeks) Income Taxes ; Investing (including tax consequences)-
Homework To Be Announced

Homework Requirements / Grading

Your homework assignment is to SHOW HOW EACH ANSWER WAS OBTAINED. Writing out the final answer doesn't matter, and you don't even have to write the final answer on your paper unless you feel like it (although I do suggest writing it). All I care about is your intermediate steps, that is, your work.

Your grade will be based on whether or not you showed enough work to convince the grader that you made a good-faith effort to solve all problems.

For example, if the homework problem asks you to calculate 5 % sales tax on a \$ 200.00 purchase, you may write down on your homework paper

$$(\$200)(.05) = \$ 10.00$$

or if you prefer you may write

$$(\$ 200)(.05)$$

but do not write

$$\$ 10.00.$$

If you write something like the following

$(\$ 200)(5) = \$ 1000$; hey grader this answer doesn't match with the answer in the book what did I do wrong?

then you will still get at least partial credit for this homework problem because it appears you are making a sincere effort to solve the problem

If you merely write down the final answer to each problem, you won't be able to look back at your homework and figure out how you did each problem when you study for tests, so you will be hurting yourself. Also, it will look like you copied all the answers from the back of the book. For that reason, a paper with nothing but final answers will be graded the same as a blank paper.

Once in a while a problem is so simple that there is no work you can show, and that's OK. However, you should be showing some work on most problems of every homework assignment if not all.