MATH 343 — LOS RIOS/CRC
MODERN BUSINESS MATHEMATICS — FALL 2016
4 UNITS — SECTION # 14076

THIS SYLLABUS WAS UPDATED ON SEPTEMBER 21, 2016

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Email is the primary and the most reliable way of contacting the instructor. Either address should work. When emailing, please always specify your real name (the same one as in the roster) and which class you are taking.

Office: LRC 150, M-F 10 am - 11 am, (916) 691-7086. Please let the instructor know if these hours do not work for you, and we can try to set up an appointment (allow 2 business days for reply).

Class Meetings: WIN 251, TTh 1:30 pm - 3:35 pm.

Required Materials: *Applied Mathematics for the Managerial, Life, and Social Sciences, 7th Edition*, by Tan. Online portion is not required. A slightly older edition should suffice. The students are responsible for reading every section covered in class.

Catalog Description: This course is designed around applications of mathematics in an economic and business context. The major topics included are functions, finance (interest and exponential models), rates of change, optimization, and linear programming. The content of the course is structured to incorporate tables, graphs and data sets collected from real-world situations. This course is not recommended for mathematics or physical science majors.

Prerequisites: Math 120 (Intermediate Algebra) with a grade of "C" or better, or equivalent skills demonstrated through the assessment process.

Methods of Instruction: Class meetings will feature a mix of lecture, discussion, very short quizzes, and group assignments. Several full-period in-class tests will be given.

Attendance: To succeed in this course, it is crucial that you come to class every day, alert and prepared to learn. Roll will be taken at the beginning of each class session. If you arrive after the class has started, please enter the room quietly and get on the roster at the end of the class. If you miss more than a half of a class session, you will be considered absent for that day. **If you miss the first class meeting without notifying me or the division administrator in advance, you will be dropped from the class. If you miss the total of** 6% **of instruction any time during the semester, you may be dropped from the class. These absences need not to be consecutive.** Exceptions will be made for documented cases of grave illness and/or family emergency.
https://www.crc.losrios.edu/catalog/geninfo/regulations

Homework: Homework serves as practice and will prepare you to do your best on quizzes and tests. Late homework will be accepted for 50% credit if it is less than 1 week late, and for 25% credit otherwise. Homework is crucial for learning the material as well as for succeeding in this class. Doing all homework is probably the most effective way to raise your test grades. You are welcome to work in groups while solving the homework, but you must submit your own work.

Quizzes: Short quizzes will be given at the beginning of some class sessions. **No make-up quizzes will be given for any reason.** 20% or so of the lowest quiz scores will be dropped, and the highest scores together will be worth 10% of the class grade.

Tests: There will be 4 tests. Together they will be worth 60% of the class grade. A single comprehensive makeup test will be given at the end of the semester for documented cases of grave illness and/or family emergency.

Final: The 2 hour comprehensive final exam will be given Thursday, December 15 at 12:45 - 2:45 pm and will be worth 20% of the class grade. **You must earn at least** 60% **on the final in order to pass this class. There is no make-up final exam.**

Grading:

Grades versus %	
A	90 — 100%
B	80 — 89%
C	70 — 79%
D	60 — 69%
F	0 — 59%

Grade Breakdown	
Tests	60%
Homework	10%
Quizzes	10%
Final	20%

Getting Help: If you have a question or a concern not addressed in this syllabus, please contact your instructor via email (allow 2 business days for reply). Moreover, the campus provides some resources to help you study:
`https://www.crc.losrios.edu/services`

Tutoring: The CRC Tutoring Center provides academic support services to CRC students. The Center facilitates drop-in tutoring, study skills coaching, study groups, and more.
`https://www.crc.losrios.edu/services/tutoring`

Additional tutors are available at the Math Center, which helps students to develop confidence and proficiency in their math skills. You must enroll in a variable unit course in order to use the Math Center.
`https://www.crc.losrios.edu/services/mathctr`

Cell Phones, Computers: Cell phones are prohibited. The use of computers and tablets during regular class meetings is OK as long as they are used for class work and are completely silent. During quizzes, tests, and the final, only non-networked calculators will be allowed.

Accommodations: Disability Support Programs & Services (DSP&S) provides equal educational opportunity for students with physical, psychological, or learning disabilities. Counseling, support services, and academic accommodations are provided to students who are eligible for the program.

The Cosumnes River College Learning Disabilities Program can provide support services and academic accommodations to students who have documentation of a specific learning disability from another school or professional. In addition, Diagnostic Assessment may be available for appropriately referred students who come to the DSP&S program for an orientation appointment.

If you have a learning disability, a physical disability, or other special needs, please let the instructor know as soon as possible if you need special accommodations.

Students have the right to request reasonable modifications to college requirements, services, facilities or programs if their documented disability imposes a functional educational limitation or impedes access to such requirements, services, facilities, or programs. A student with a disability who will be requesting modification, accommodation, or access to an auxiliary aid is required and responsible for identifying himself/herself to the instructor and, if desired, to the Disabled Students Programs and Services (DSP&S office). In either event, the student is responsible for providing appropriate documentation of his/her disability. Students who consult or request assistance from the DSP&S office regarding specific modifications, accommodations or use of auxiliary aid will be required to meet timelines and procedural requirements established by the DSP&S office.

`https://www.crc.losrios.edu/services/dsps`

Academic Honesty: Any instance of plagiarism and/or cheating will result in the score of zero for that homework, quiz, or test, and will be reported to the Vice President's office.

`https://www.crc.losrios.edu/catalog/geninfo/integrity`

Meta: The instructor reserves the right to make changes to this syllabus throughout the semester. All changes will be announced in class, and an updated version of the syllabus will be published online. Students are responsible for keeping up with these changes.

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

- Understand and apply the mathematics of finance
  - Calculate and interpret simple, compound, and continuously compounded interest
  - Calculate monthly payments and form an amortization schedule
  - Recognize and use the correct formulas for present value, future value, annuities and sinking funds
- Calculate and interpret solutions to linear programming problems
  - Graph and solve a system of linear inequalities for corner points and feasible region
  - Solve applications of linear programming
- Analyze business and economic problems
  - Graph and apply linear, quadratic, power, polynomial, rational, exponential, and logarithmic functions in business application models
  - Analyze formulas, graphs, tables, and data sets in order to make predictions and to form conclusions
- Calculate and interpret rates of change in business
  - Calculate limits and derivatives using the power rule, product rule, quotient rule, and chain rule
  - Calculate derivatives of exponential and logarithmic functions
  - Apply the derivative to optimize functions and applications to marginal analysis
  - Apply the derivative to minimize and maximize business applications such as cost, revenue, and profit functions