

MAT 142: College Mathematics
Summer 2012: Fernández

Course Syllabus for Face to Face Section: Please Read This Document Completely

Instructor Information:

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Course Description:

MAT 142. College Mathematics (3). Survey of mathematical topics and applications. Includes statistics, probability, exponential functions, finance, dimensional analysis and other selected topics from discrete math. Note: Computer use and graphing calculator required. (TI-83/84 recommended). Prerequisite: MAT 122, or two years of high school algebra and one year of geometry completed within the last 4 years, or an ACT Math score of at least 22, or an SAT Math score of at least 530, or a satisfactory score on the mathematics skills assessment. Reading Proficiency. Three lecture.

Course Content:

1. Algebraic Models of Growth and Decay
2. Mathematics of Personal Finance
3. Dimensional Analysis
4. Counting and Probability
5. Descriptive Statistics and the Normal Distribution

Learning Outcomes:

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

1. Create and apply linear, quadratic and exponential models. (1)
2. Apply the mathematics of personal finance, including compound interest, annuities, and amortized loans. (2)
3. Use dimensional analysis to make conversions with metric and U.S. measurement systems. (3)
4. Apply the basic rules of counting: fundamental counting principle, permutations, and combinations to solve problems. (4)
5. Apply the basic rules of probability including compound events, conditional probability, and expected value to solve problems. (4)
6. Calculate and interpret graphical and numerical summaries of data, including measures of central tendency and dispersion. (5)
7. Use the basic properties of the Normal curve to solve applied problems. (5)

Required Course Materials:

1. **Text:** *Mathematics All Around (Fourth Edition)* Pirnot (2010) **(ISBN 0321575946)**. This ISBN is for a package that includes the textbook and an access code for the MyMathLab site. Note: The MyMathLab site contains an online interactive version of the textbook. It is up to you whether or not you would like to have a hard copy of the text or just purchase access to the MyMathLab site.
2. **MyMathLab:** MyMathLab will be used for all online homework and quizzes, and it contains numerous resources to help you learn the course content. If you purchase your textbook from the Yavapai College Bookstore, an access code for MyMathLab is included in your purchase. If you

have purchased the text elsewhere, or if you would like to use the electronic version only, you may purchase an access code directly from the MyLabsPlus Website (it costs \$88). To register on the MyMathLab site follow the steps in the MyLabsPlus_Registration_Information sheet that you should have received with the first class email (you may go to class website –look under *MAT 142 handouts* page to download a copy).

- 3. Calculator:** A graphing calculator is **required** for the course. Texas Instrument graphing calculators, such as the TI-83 or 83+ or TI-84 or 84+ are strongly recommended.
- 4. Access to a Spreadsheet Program:** Topics in Chapters 7, 9, and 15 require the use of a spreadsheet program – Yavapai College has EXCEL 2007 available on all of the computers that are available in open labs, in the library and in the Learning Center.

Class Website:

All of the course announcements, documents, information and links to **MyMathLab** will be contained in **the class website**. I will make most of the course available on **Tues May 29th** (6 days before the class starts) so you can read course information and get registered for MyMathLab.

Follow the steps below:

1. Go to the class website: <http://fernandezmathatyc.yolasite.com/>
2. Read the home page, and watch the video about Navigating the Website
3. Go to the [MAT 142 page](#) and follow the instructions for the first week of the class.

Course Outline:

Weeks 1 - 2: Chapter 7: Algebraic Models

Week 3 - 4: Chapter 9: Consumer Mathematics

Week 4: Chapter 10: Dimensional Analysis & Chapter 8: Modeling with Systems

Week 5: Chapter 13: Counting

Week 6: Chapter 14: Probability

Week 7: Chapter 15: Descriptive Statistics

Week 8: Review and Final Exam

Assessment Measures:

Homework: Homework assignments for each of the sections we will be covering will be completed in **MyMathLab**, and must be completed by the due date listed with each assignment (it can be completed early if you prefer). Homework assignments may be resubmitted as many times as you would like before the due date. It is possible to earn 100% on each homework assignment. Late homework will not be accepted and will be entered as a grade of "0".

Homework is worth **15%** of your grade.

Written Assignments: Written Assignments are assigned and submitted through **DropitToMe**. These assignments are designed to assess your understanding of how to apply the content. Late assignments will be accepted, but will be docked 10% per day late, and will not be accepted more than one week late. Written Assignments are worth **30%** of your grade.

Quizzes: Online quizzes are completed and submitted through **MyMathLab**. These quizzes are designed to assess skills. Quizzes may be taken only once and will not be accepted for credit after the due date.

Quizzes are worth **40%** of your grade. *If your class attendance is excellent, and you miss **no more than one class lecture day for ANY reason** (0 – 1 absence during the semester), your lowest quiz score will be dropped.*

Comprehensive Final Exam: During the last week of the semester, your knowledge will be assessed through a paper and pencil proctored final exam. **The final exam will be held during class on Wednesday, July 25th.** The final exam is worth **15%** of your course grade.

NOTE: In order to receive a passing grade for the course, you must score higher than a 50% on the final exam!!

Grading Criteria:

Homework	15%
Written Assignments	30%
Quizzes	40% (Based on your attendance to class, your lowest score may be dropped)
Final Exam	15%
Total	100%

Grading Scale:

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

In Case of Emergency:

For absences due to prolonged serious illness or personal emergency the student is expected to follow the steps outlined below:

- Contact me as soon as possible. *I can be reached by e-mail* or by leaving a phone message at (928) 776-2276. All assigned work must be completed regardless of the reason for absence.
- You may be asked to provide documentation substantiating the mitigating circumstance.
- Note that if you appear to have stopped attending class and there's no communication from you, you may be dropped.

If you experience technical problems, you are expected to follow the steps outlined below:

- Contact me as soon as possible. All assigned work must be completed regardless of the reason for absence.
- **It is your responsibility** to find another source for Internet service such as a public library, Internet café or a friend's computer.
- *Make sure you write down my contact information outside of the computer in case of such situations.*