

# **MAT 142: College Mathematics**

## **Fall 2011 Course Syllabus**

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### **Course Information**

#### **Course Description:**

Welcome to MAT 142! The purpose of this course is to relate college-level mathematics to real-life problems. We will emphasize problem-solving techniques, specifically by means of discussing concepts including proportional reasoning, set theory, probability, statistics, and finance.

#### **Course Objectives:**

- Students will be able to apply proportional reasoning to solve a range of problems
- Students will learn about sets, set notation, set operations and use set theory to solve problems
- Students will learn basic counting techniques and a variety of strategies to solve probability based problems
- Students will apply a variety of statistical measures to solve problems
- Students will solve a variety of financial based problems including problems involving simple and compound interest, annuities, and amortized loans

#### **Prerequisites:**

This course is open to students whose major does not require MAT 119, MAT 170, or MAT 210 and have completed either MAT 106 or scored at least a 30 on the ALEKS Placement test. This course also carries General Studies “MA” credit.

#### **How to Succeed in this Course:**

- Our weekly class meeting for problem solving is not the only time you should be working on the course content. You are expected to spend at least 6 hours per week outside of our scheduled class meeting to access the course content in the computer lab or your personal computer.
- You are **highly encouraged** to work out solutions to problems and take notes while interacting with the online content just as if you were in a traditional lecture. You can use these notes as you prepare for your exams or in class for the problem solving sessions.
- It is highly recommended that you schedule to take an exam as soon as you finish a unit while the information is still fresh in your mind before moving on to the next unit.
- Stay ahead of schedule and make sure you are aware of all the resources available to you as listed here in the syllabus and in your course site.
- Pay attention to course landmarks so you don't fall behind.
- Create a study and/or assignment schedule to stay on track. Staying “on track” is a critical component of student success in this course. If you find yourself falling behind, contact me and take the appropriate steps to get back “on track.” Students who fall behind or exhibit consistently poor performance will be required to attend the computer lab until they are back “on track.” Be proactive and seek help first!
- Communicate with your instructor and classmates as needed.
- Check your ASU e-mail regularly.
- Log in to the course web site every day.

## Evaluation Activities:

This course requires students to complete four important evaluation activities:

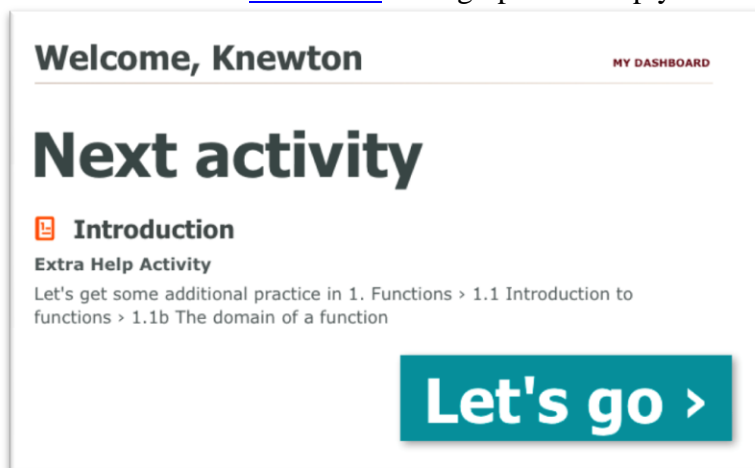
- Success in ASU Math Study Consent Form
- ACES Pre-test
- ACES Post-test
- Engagement Survey

Your course website includes detailed information about the evaluation activities, how long it takes to complete each one, and when each one should be completed. It will take about 45 minutes total over the semester to complete all four evaluation activities. Don't forget you will need to include your name and ASURITE ID on each evaluation activity in order to get credit for completing the task.

## Course Materials & Structure

### Course Materials:

- *Readings:* You are not required to purchase a textbook for this course. Reading materials will be provided in each lesson as .PDF chapters. If you would like to purchase a hard copy (available for purchase at the ASU bookstore) we are using the following text: *Mathematics All Around, 4<sup>th</sup> Edition*; by Thomas L. Pirnot
- *Videos:* All lecture content is delivered by web based video that can be accessed by any computer that is connected to the Internet. You will be expected to locate a computer and internet connection that can handle watching web based videos.
- *Quizzes:* Quizzes are administered online and determine your learning path and the content materials you will receive. This could differ from your classmates depending upon your understanding of the material. The quiz score results do not get calculated into your final course grade.
- *Knewton Online Study Center:* Once you take your quiz you will be directed to your set of learning activities in the Knewton Study Center. If you're not sure what to do, click on the LET'S GO button for a recommendation. [Click here](#) for a graphic to help you understand how the study center works.



- *Problem Sets:* Our class time will be devoted to group problem solving sessions. You will be expected to work with classmates to solve complex problems reflecting the materials you are learning. You are expected to come prepared with a notebook, pencil, and calculator.
- *Exams:* Once you have earned your unit badge in Knewton Study Center, you should schedule your unit exam using Tutor Track to take your exam in a proctored environment. It is required for you to bring headphones to the computer lab for taking the exam. **You must take the exam before the close date (listed in your course schedule) as there are no extensions or makeups.** Based on the recommended pace of the course you should not have any trouble meeting these deadlines.

- *Calculator:* At minimum, a scientific calculator is required for this course. A few of the recommended models include the TI-30, TI-34, TI-36, TI-83, and TI-84. A graphing calculator is not required. However, if you plan on taking STP 226: Elements of Statistics at the Downtown Phoenix campus, please note that a TI-84 (or other graphing calculator) is required for that course. You are expected to bring your calculator to class daily. Cellular phone calculators are not permitted in class or during an exam. Also, the sharing of calculators is not permitted during exams.

**Course Structure / Flowchart:**

- [Click here](#) to see a graphic of the course flow for MAT 142.

**Studying, Preparation, and Outside of Class Time:**

This is a hybrid course and therefore the majority of your work will be taken online outside of the classroom. It is recommended that you spend a minimum of 6 hours per week outside of class. All assignments and course interactions will utilize web-based technologies.

**Student Resources / Computer Lab:**

- Your primary resource for tutoring is the computer lab located in UCENT 273. During non-class and non-testing times, tutors will be available to answer questions for you regarding the course content. The computer lab’s hours are: Monday 1:00-8:00pm, Tuesday 8:00am-2:45pm, Wednesday 1:00-8:00pm, Thursday 8:00am-2:45pm, Friday 1:00-5:00pm. You can also visit the Student Success Center located on the first floor of University Center. Specific hours for when a MAT 142 tutor is available at the Student Success Center can be found on their webpage at: <http://studentsuccess.asu.edu/downtown>.
- If you own a laptop computer, you are encouraged to bring it with you to the computer lab when you are working on course content or taking an exam.
- The Technology Studio, located in Information Commons (lower level of the UCENT building), can check your laptop or personal computer free of charge to make sure you are ready to access all the course content from your computer. If you choose to use your laptop for exams, the Technology Studio will also assist you in installing the secure browser required for testing. Their hours are Monday-Friday 12-5pm and their phone number is (602) 496-0309.
- You must wear headphones while in the computer lab.

## Grading Policy

**Letter Grade Assignment:**

Graded work includes exams, Knewton student center activities, and in-class problem sets.

<b>Point Distribution</b>	<b>Percentage</b>
5 Unit Exams	50%
5 Unit Badges	25%
Problem Sets & Group Work	25%

<b>Grade</b>	<b>Grading Scale</b>
A+	97% or above
A	93% - 96.99%
A-	90% - 92.99%
B+	87% - 89.99%
B	83% - 86.99%
B-	80% - 82.99%
C+	77% - 79.99%
C	70% - 76.99%
D	60% - 70%
E	< 60%

### **Drop / Withdrawal:**

If you feel it is necessary to withdraw from the course, please see <http://students.asu.edu/drop-add> for full details on the types of withdrawals that are available and their procedures.

### **Key Semester Dates**

<i>Drop/Add Deadline:</i>	Wednesday, August 24, 2011
<i>Course Withdrawal Deadline:</i>	Wednesday, November 2, 2011

### **Class Participation (Problem Solving):**

- Class participation is mandatory. Each week, you will receive a problem set and be assigned a group based on the most recent content you and each of your group members have completed in the course. These problem sets will account for the final 25% of your overall course grade. If you miss class you will not receive your problem sets or credit for that class. There are no make-up problem sets for missed class sessions. However, one problem set score will be dropped at the end of the semester. Please see your instructor if you have a documented reason for missing class.
- Turn off/silence any cellular phones prior to entering class. Blatant cellular phone usage (i.e., text messaging) during class is not tolerated.
- Since our focus during class is on problem solving in our groups, laptop computers are not necessary. As addressed before, however, you are encouraged to take notes while you are reviewing the content online and bring those notes to class with you.

## **Nuts & Bolts**

### **Agreement of Terms:**

By remaining registered in the course through drop/add period, you agree to all terms and policies set forth in the syllabus.

### **Additional Information:**

- The highest standards of academic integrity are expected of all students at all times. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities. We will act very harshly against any acts of academic dishonesty during exams.
- Students with disabilities should arrange to meet with me as soon as possible to arrange for reasonable accommodations for their learning needs. Students registered with DRC must notify the instructor at least two weeks prior to any exam close date.
- Alternative arrangements for any religious observances, ASU sanctioned activity, or ASU student athlete obligations must be arranged with the instructor at least two weeks prior to the event. As a reminder, there are no extensions or makeups for exams after the exam close date.
- No individual extra credit assignments will be offered.
- Welcome to the course! I encourage you to stay after class, visit the computer lab, come to my office hours, or make an appointment with me to discuss any material that is unclear to you. I wish you well in the course and all of your other academic pursuits this semester.