

## **MAT 142: College Mathematics** **Spring 2012 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.

### **Course Materials**

#### **Textbook:**

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 at an additional cost, we are using the following text (available for purchase at the ASU bookstore):

*Mathematics All Around, 4<sup>th</sup> Edition* (Custom Package); by Thomas L. Pirnot; Pearson Custom Publishing; ISBN 0-558-326153-0.

#### **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. 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

### **Diagnostic Assessment:**

A diagnostic assessment is administered online before you begin each section to determine your learning path and the content materials you will receive. You are expected to watch the video for each section before completing the diagnostic assessment. The diagnostic assessment results do not get calculated into your final course grade.

### **Knewton Study Center:**

The information you receive in the Knewton Study Center could differ from your classmates depending on the results of your diagnostic assessments and understanding of the course material. You are *expected* 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.

### **Unit Badges:**

After completing all of the sections in a unit, you will earn a Unit Badge. There are 5 Unit Badges that contribute to your overall grade. After you earn a Unit Badge, provide yourself with sufficient time to prepare for and to take your Unit Exam.

### **Problem Solving Sessions:**

Each student is expected to come to class on a weekly basis and participate. Every 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. 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. Please see your instructor if you have a documented reason for missing class.

### **Exams:**

You will take five unit exams during the semester according to the target dates listed below. Based on the recommended pace of the course you should not have any trouble meeting these deadlines. Each exam will involve a mix of mechanical skills and conceptual reasoning. No exam scores will be dropped. 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.

<b>Exam</b>	<b>Target Date</b>
Unit 1 Exam	Week of Monday, January 23, 2012
Unit 2 Exam	Week of Monday, February 6, 2012
Unit 3 Exam	Week of Monday, March 5, 2012
Unit 4 Exam	Week of Monday, April 2, 2012
Unit 5 Exam	Week of Monday, April 16, 2012

### **On Track/Class Participation Grade:**

Every Monday, you are expected to participate in the weekly discussion that will occur at the beginning of class. In addition, you are expected to remain “On Track” as indicated by the course schedule. Each week, students who are “Off Track” by 12:00 PM on Mondays will lose 10 points from their On Track Participation grade.

## Course Expectations & Student Resources

### Course Expectations:

- You are expected to complete a minimum of 2 sections per week as outlined on the course schedule.
- Our weekly class meeting for problem solving is not the only time you should be working on the course content. Since this is a hybrid course, a majority of your work will be done online outside of the classroom. 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.

### Student Resources / Computer Lab:

- Your primary resource for tutoring is the computer lab. During non-class and non-testing times, tutors will be available to answer questions for you regarding the course content. You can also visit the Student Success 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>.
- 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. In order to use your laptop to take an exam in the computer lab, you must install the secure browser for testing by clicking on the *Orientation* tab on the left side of the course site.
- The Technology Studio, located in Information Commons, 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. The Technology Studio can also assist you in installing the secure browser required for testing.
- Everyone is required to bring and wear headphones while in the computer lab.

**Lab Schedule (as of 01/09/12)**

Day	Tutoring	Testing in UCENT 273
Monday	9:30am – 10:45am (UCENT 273)	11:00am – 5:00pm
Tuesday	TBA in UCENT 186 only	8:00am – 4:00pm
Wednesday	TBA in UCENT 186 only	10:00am – 6:00pm
Thursday	10:00am – 1:00pm (UCENT 273)	No Testing on Thursday
Friday	9:30am – 3:00pm (UCENT 273)	No Testing on Friday
Saturday	No Tutoring on Saturday	No Testing on Saturday
Sunday	No Tutoring on Sunday	10:00am – 4:00pm

### 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.

### How to Succeed in this Course:

- Staying “on track” is a critical component of student success in this course. Stay ahead of schedule and make sure you are aware of all the resources available to you that are listed in the syllabus and on the course site so you don't fall behind.
- Check your ASU e-mail regularly.
- Log in to the course site every day.

## Grading Policy

Point Distribution	Percentage
5 Unit Exams	50%
Problem Sets	25%
5 Unit Badges	20%
On Track Participation	5%

Grade	Grading Scale
A+	97% or above
A	90% - 96.99%
A-	89.5% - 89.99%
B+	87% - 89.49%
B	80% - 86.99%
B-	79.5% - 79.99%
C+	77% - 79.49%
C	70% - 76.99%
D	60% - 69.99%
E	< 60%

## Key Semester Dates

<i>Drop/Add Deadline:</i>	Wednesday, January 11, 2012
<i>Course Withdrawal Deadline:</i>	Wednesday, March 28, 2012

## 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.
- 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 participate in class, visit the Student Success Center, 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.