

MAT 142: College Mathematics Fall 2012 Course Syllabus

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Course Schedule

Week #	Dates	Assignment Due by 12:00pm on Tuesday:
1	August 20 – 24 <i>First Day of Classes 8/23</i>	Getting Started Badge Complete ASU Math Study Consent* Complete ACES Pre-Test* 1.1: Approaching Problems 1.2a: Direct Proportions 1.2b: Solving with Proportions
2	August 27 – 31	<i>Schedule Unit 1 Exam</i> 1.3a: Understanding Percents 1.3b: Percent Problems 1.4a: Unit Conversions 1.4b: Conversions in the Real World
3	September 3 – 7 <i>Labor Day Observed 9/3</i>	2.1a: Describing Sets 2.1b: Cardinality and Special Sets 2.2: Relating Sets
4	September 10 – 14	Unit 1 Exam 2.3a: Operations with Two Sets 2.3b: Operations with Three Sets
5	September 17 – 21	<i>Schedule Unit 2 Exam</i> 2.4a: Two-set Survey Problems 2.4b: Three-set Survey Problems
6	September 24 – 28	Unit 2 Exam 3.1: Introduction to Counting Methods 3.2: The Fundamental Counting Principle
7	October 1 – 5	3.3: Permutations and Combinations 3.4: The Basics of Probability Theory
8	October 8 – 12	3.5: Complements and Unions of Events 3.6: Conditional Probability and Intersections of Events
9	October 15 – 19 <i>Fall Break 10/15-10/16</i>	<i>Schedule Unit 3 Exam</i> 3.7: Expected Value (Due by lab on Thurs, 10/18)
10	October 22 – 26	Unit 3 Exam 4.1a: Constructing Data Visualizations 4.1b: Interpreting Data Visualizations
11	October 29 – November 2	4.2a: Mean, Median, Mode 4.2b: Five-number Summary 4.3: Range and Standard Deviation of the Normal Curve
12	November 5 – 9	<i>Schedule Unit 4 Exam</i> 4.4a: The Normal Curve 4.4b: Applications of the Normal Curve

13	November 12 – 16 <i>Veteran’s Day Observed 11/12</i>	Unit 4 Exam 5.1: Simple Interest 5.2: Compound Interest
14	November 19 – 23 <i>Thanksgiving Observed 11/22-11/23</i>	5.3: Consumer Loans
15	November 26 – 30	<i>Schedule Unit 5 Exam</i> 5.4: Annuities
16	December 3 – 7	5.5: Amortization Complete ACES Post-Test*
17	December 10 – 11	Unit 5 Exam due on Tuesday 12/11 <i>Course Ends on Tuesday 12/11</i>

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. This course carries General Studies “MA” credit.

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.

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.

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, 4th 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 your results of the diagnostic quizzes 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. All material in the Knewton Study Center must be completed by Tuesday, December 11, 2012 (the last day of classes). No credit will be given for work completed after December 11, 2012.

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.

Lab Sessions:

Each student is expected to come to class as scheduled and participate until the course is completed, concluding with the Unit 5 exam. Every Thursday, we will meet in a computer lab for you to work through the Knewton Study Center. Attendance will be taken at the beginning of lab.

Problem Solving Sessions:

Every Tuesday, we will meet in a traditional classroom for problem solving. During our problem solving sessions, 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 a problem set or credit for that class. This means that you will receive a score of 0 for the problem set you should have completed that day. There are no make-up problem sets for missed class sessions, but your lowest 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.

Class Participation/On Track Grade:

All students are expected to come to class and remain “On Track” as indicated by the course schedule. On Tuesday’s lab day, students who are absent from lab will lose 10 points from their participation grade. Late arrivals will count as a half absence. On Tuesday’s problem solving day, students who are “Off Track” **by 12:00 PM** will lose 10 points from their participation grade.

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. All exams must be scheduled and taken in a testing center operated by the University Academic Success Program. Details on how to schedule your exams will be announced in class.

Exam	Take Exam Between:
Unit 1 Exam	Tuesday 8/28 – Monday 9/10
Unit 2 Exam	Tuesday 9/18 – Monday 9/25
Unit 3 Exam	Tuesday 10/15 – Monday 10/23
Unit 4 Exam	Tuesday 11/6 – Monday 11/12 (Check lab hours for Veteran’s Day Weekend schedule)
Unit 5 Exam	Tuesday 12/4 – Tuesday 12/11

Course Expectations & Student Resources

Course Expectations:

- You are expected to complete a minimum of 2 sections per week as outlined on the course schedule.
- Class time is not the only time during which you should be working on the course content. Since this is a hybrid course, a good portion of your work will be done online outside of the classroom.

Student Resources / Computer Lab:

- Your primary resource for tutoring is the Student Success Center. Specific hours for when a MAT 142 tutor is available at the Student Success Center or the Math Lab 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.

Testing Schedule – POST L1-35 (as of 08/22/12)

Day	Testing in Post L1-35
Monday	4:45pm-9pm
Tuesday	6:30pm-8:30pm
Wednesday	4:45pm-6:45pm
Thursday	6:30pm-8:30pm
Friday	10:30am-4:50pm
Saturday	No Testing on Saturday
Sunday	No Testing on Sunday

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. (Note: Even if you took MAT 194, MAT 142, or MAT 117 last year, you will need to complete the evaluation activities again in this course.)

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 daily.
- Log in to the course site every day.

Grading Policy

Point Distribution	Percentage
5 Unit Exams (10% each)	50%
Problem Sets	25%
5 Unit Badges (4% each)	20%
Class Participation / On Track	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, August 29, 2012
<i>Course Withdrawal Deadline:</i>	Wednesday, November 7, 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 target 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.