MAT 142: College Mathematics

Fall 2012 Online Syllabus

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Click here for Instructor Syllabus Addendum	
Click here for MathCentral (A Ton of Good Info)	
Office: ECA-377	Office Hours: Check Syllabus Addendum

Course Information
Course Description

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, sets, probability, statistics, and finance. The course is appropriate for students whose major does not require MAT 117 or 170.

Course Objectives

- 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 Students will be able to apply proportional reasoning to solve a range of problems.
- 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 who have completed MAT 106, MAT 113 or MAT 117 with C or better or completed the ALEKS Math Placement Test with a score of 30% or higher or completed MAT 194: EFM (now MAT 110) with skills mastered for MAT 142. This course also carries General Studies "MA" credit.

Course Materials & Structure

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 (available for purchase at the ASU bookstore) we are using the following text: *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-30XS Multiview, TI-34 Multiview, TI-36, TI-83, and TI-84. A graphing calculator is not required. Cellular phone calculators "pad" apps are not permitted during a proctored exam. Also, the sharing of calculators is not permitted during exams

Diagnostic Assessment

These are the most confusing element of your studies. Read this closely. 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 course grade at all, but do your best on them. If you place at 85% or better you will be allowed to move on to the next lesson. Less than 85% and you will be required to complete an additional sometime lengthy set of videos and assessments in Knewton.

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.

Problem Solving On-line

Written problem solving activities are an integral part of learning mathematics. **You will complete at least one problem set each week.** The sets for each unit are included in your Course Home Menu in **Learning Studio** (AKA ecollege) within each unit. Solutions also appear there.

Once each week a special quiz will appear in the "Attendance" menu item in *ecollege* where you will supply the answers related to one or two of those problems. **DO NOT disregard this. This serves as your attendance and participation grade which includes your problem set grade! These close out each Monday night for the previous calendar week.**

One question will deal with announcements for that week. Usually one or two questions will ask for solutions (not the work) related to the work sheet. You score your points for the problem set portion according to whether you have correct answers or not.

Please note that the best way to avoid this is to finish the course QUICKLY. Your work sheet responsibility ends when you take the last course exam.

Exams

You will take five unit exams during the semester according to the deadlines 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. You only get a single attempt at each unit exam. Once you put in the exam password, you attempt has started and must be completed in 90 minutes. No exam scores will be dropped. When your clock of doom begins, no one (not even the instructor) can stop it!

Exam	Exam closes at 11:59PM on
Unit 1 Exam	09/13/2012
Unit 2 Exam	09/ 27/2012
Unit 3 Exam	10/25/2012
Unit 4 Exam	11/15/2012
Unit 5 Exam	12/11/ 2012

- The first four exams can be taken on your home computer in an un-proctored setting.
- **The Unit Exam 5 must be proctored.** You must take the proctored test in any of the Testing Centers run by the University Academic Success Programs. This option is at no charge to the student. It is highly recommended that you schedule to take an exam as soon as you start working on Unit 5. You are required to bring headphones to the computer lab for taking the exam.
- **A lock down browser is required to take all exams.** See the technology requirements section for a link to a browser and installation instructions.
- It is not possible to access an exam without a password that will be provided by the instructor for the first four exams. **You should email your request for each password once you have completed the badge in a unit.**
- The password for the **Unit Exam 5** will be provided by the proctor.

Scheduling Your Math Test

As already noted in this syllabus, you only schedule the final exam in the course with a testing site. The links below can help with that. Any notation to "*schedule other exams at this time*" in course schedules or announcements is a reminder to you to make sure you have a plan for each exam.

NO EXAM WILL BE EXTENDED BECAUSE YOU "FORGOT". You will receive a zero. Any request for extension will require a certified document from competent authority as justification.

1. If you are too sick to take the exam, see a doctor or take the zero.
2. If you have a wedding, take the exam early or take the zero.
3. If you have a organizational organization event, take the exam early or take the zero.
4. If you have… take the zero.

I hope you see the pattern. Only those events recognized by ASU as excusable school events are allowed extensions. Those program routinely provide a letter to instructors which is the proof.

iCourse students only: [Click here to schedule your test](http://asuonline-dev.asu.edu/math/schedule-test/schedule-test.html)
(http://asuonline-dev.asu.edu/math/schedule-test/schedule-test.html)

[Click here for how to cancel your test appointment.](http://asuonline-dev.asu.edu/math/schedule-test/cancel-appointment.html)
(http://asuonline-dev.asu.edu/math/schedule-test/cancel-appointment.html)

ASU Online students only: [Click here to schedule your test through Proctor U](https://asuonline1.backpackit.com/pub/2789523-setting-up-proctoru)
(https://asuonline1.backpackit.com/pub/2789523-setting-up-proctoru)

Note: I do not have a problem when an ASU Online student schedules test in the Tempe or other ASU testing sites. However, the testing sites do not have to make the appointment if they are overwhelmed with on-campus students.

Course Expectations & Student Resources

Course Expectations

You are expected to complete a minimum of 2 sections per week as outlined on the course schedule.

- Over the course of the semester, you are expected to remain on schedule and "On Track" as designated the Knewton system.
- **Students who are "Off Track" by the day/time designated by your instructor may receive a scathing email from your instructor. If you are persistently off-track, get help!**

Since this is an on-line course, all of your work will be done online (outside of a classroom).

- There are no class meetings.
- You are expected to spend at least 10 hours per week working in the course content in the computer labs or your personal computer.

Attendance

All First Year Mathematics courses have an attendance/participation policy. In an online course such as this one, any of the following is reason to receive a grade on EN for "non-attendance".

- Failure to take any exam by the deadline.
- Failure to score at least 50% on 3 or more lessons before the deadline for taking that unit's tests. A lesson is one of the lessons (i.e.: lesson 1.2a in section 1.2 in unit 1), the syllabus quiz, or the required email.
- Failing to complete any three weekly attendances quizzes BEFORE you complete the Unit 5 Exam.

Any student who has not "participated" through on-line work during the first week of classes may be administratively dropped from the course.

- However, students should be aware that non-attendance will NOT automatically result in being dropped from the course. Thus, a student should not assume they are no longer registered for a course simply because they did not attend class during the first week.
- It is the student's responsibility to be aware of their registration status.

Students cannot be dropped for the course for non-attendance/non-participation <u>once they have attended/participated in the class</u>. They must withdraw themselves.

Computer Requirements

You are responsible for having a reliable computer and internet connection throughout the course. This course requires that you have access to a computer that can access the internet. You will need to have access to, and be able to use, the following software packages:

- The only recommended web browser for these courses is [Mozilla Firefox](http://www.mozilla.com) (http://www.mozilla.com) Problems incurred using any other browser are your own.
- [Adobe Acrobat Reader](http://get.adobe.com/reader/) (free) (http://get.adobe.com/reader/).
- [Adobe Flash Player](http://www.adobe.com/products/flashplayer/) (http://www.adobe.com/products/flashplayer/) (free)
- A program that reads PowerPoint, Word, and Excel documents, examples: [Microsoft Office](http://office.microsoft.com/) (http://office.microsoft.com/) or a popular free alternative is [Open Office.](http://www.openoffice.org/) (http://www.openoffice.org/)
- A note: I have a tablet, and I also have the usual problems that causes since some of them don't handle Flash or PDFs well. If this course important to you, find full-featured computer to do it on. ASU has literally thousands of them on campus at Tempe.

Student Resources / Computer Lab

Your primary help, when you need it, is your instructor by email. Read the Shout Outs part of you web addendum closely for details. If you do not abide by those rules, you will be essentially alone in this course.

- 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.
- Another tutoring resource is Student Success online tutoring. Students interested in receiving online tutoring can go to http://tutoring.asu.edu/online to schedule a one hour appointment with a tutor. Online sessions will be in small groups, with a maximum of *three students per one-hour time slot*. Students should most certainly be informed that they are not guaranteed one-on-one math tutoring online. The web side will have the most up-to-date available tutoring hour.
- ***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 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 can also assist you in installing the secure browser required for testing.
- You must wear headphones while in the computer lab if you plan to play audio.

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 <u>total</u> 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: If you took MAT 194, MAT 142 or MAT 117 in Fall 2011 or Spring 2012, your course included the same evaluation activities. You will need to complete the evaluation activities again in this course.

How to Succeed in this Course

- Staying on schedule according to schedule included below and "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 and ecollege announcements daily.
- Log in and work in the course site every day.

Schedule for Fall A 2012

Week of	What to do	Deadline
8/23 – 8/29	☐ Email instructor (One Time Only) ☐ Complete Getting Started Badge ☐ Complete ASU Math Study Consent* ☐ Complete ACES Pre-Test* ☐ Complete Syllabus Quiz ☐ 1.1 – Approaching Problems ☐ 1.2a – Direct Proportions ☐ 1.2b – Solving with Proportions	11:59 pm 8/29
8/30 – 9/5	☐ Schedule Test 1 (this does not mean take test) – deadline to take test is 9/13 ☐ 1.3a – Understanding Percents ☐ 1.3b – Percent Problems ☐ 1.4a – Unit Conversions	11:59 pm 9/5

	□ 1.4b – Conversions in the Real World	
9/6 – 9/12	□ 2.1a – Describing Sets □ 2.1b – Cardinality and Special Sets □ 2.2 – Relating Sets	11:59 pm 9/12
	□ Take Test 1 no later than Thursday, September 13.	9/13
9/13 – 9/19	□ Schedule Test 2 (this does not mean take test) – deadline to take test is 9/27 □ 2.3a – Operations with Two Sets □ 2.3b – Operations with Three Sets □ 2.4a – Two-set Survey Problems □ 2.4b – Three-set Survey Problems	11:59 pm 9/19
9/20 – 9/26	□ 3.1 – Basic Counting Methods □ 3.2 – Understanding FCP	11:59 pm 9/26
	□ Take Test 2 no later than Thursday, September 27.	9/27
9/27 – 10/3	□ 3.3 – How Many Ways? □ 3.4 – How Likely?	11:59 pm 10/3
10/4 – 10/10	□ 3.5 – Combined Events □ 3.6 Working with Conditions	11:59 pm 10/10
10/11 – 10/17	□ Schedule Test 3 (this does not mean take test) – deadline to take test is 10/25 　□ 3.7 – Calculating Expected Value	11:59 pm 10/17
10/18 – 10/24	□ 4.1a – Construction Data Visualizations □ 4.1b – Interpreting Data Visualizations	11:59 pm 10/24
	□ Take Test 3 no later than Thursday, October 25	10/25
10/25 – 10/31	□ 4.2a – Mean, Median, Mode □ 4.2b – Five-number Summary □ 4.3 – Range and Standard Deviation	11:59 pm 10/31
11/1 – 11/7	□ Schedule Test 4 (this does not mean take test) – deadline to take test is 11/15 □ 4.4a – The Normal Curve □ 4.4b – Applications of the Normal Curve	11:59 pm 11/7
11/8 – 11/14	□ 5.1 – Time is Money □ 5.2 – Interest on Your Interest □ 5.3 – Add-on and Daily Balance Methods	11:59 pm 11/14
	□ Take Test 4 no later than Thursday, November 15.	11/15
11/15 – 11/21	□ 5.3 – Add-on and Daily Balance Methods □ 5.4 – The Annuity Formula	11:59 pm 11/21
11/22 – 11/28	□ Schedule Test 5 (this does not mean take test) – deadline to take test is 12/11 □ 5.5 – The Amortization Formula	11:59 pm 11/28
11/29 – 12/5	□ Take Test 5 no later than Tuesday, December 11.	12/11 **Unit 5 closes**
12/6 – 12/11	□ Extra time to complete finance unit	**No activity will be graded after 12/11/2012**

*See Evaluation Activities in your course website for more information.

Grading Policy

Point Distribution	Percentage (%)		Grade	Grading Scale (%)
5 Unit Exams	**50**		A+	97 ≤ Score ≤ 100
Attendance and Participation	**30**		A	90 ≤ Score ≤ 96.5
5 Unit Badges	**20**		A-	89.5 ≤ Score < 90
Total	**100**		B+	87 ≤ Score ≤ 89
			B	80 ≤ Score ≤ 86.5
			B-	79.5 ≤ Score < 80
			C+	77 ≤ Score ≤ 79.5
			C	70 ≤ Score ≤ 76.5
			D	60 ≤ Score ≤ 69.5
			E	0 ≤ Score < 60

Key Semester Dates

Please refer to the ASU Academic Calendar **for specific dates for your session.**

Drop/Add Deadline:	Wednesday, August 29, 2012
Course Withdrawal Deadline:	Wednesday, November 7, 2012

Additional Information

Students with disabilities should contact 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 deadline.

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.

Technology Requirements
Email and Internet

You must have an active ASU e-mail account and access to the Internet. *All instructor correspondence will be sent to your ASU e-mail account using the ecollege Email function or My ASU rosters.* **Check your ASU email account and ecollege announcements daily for course related messages.**

This course uses Pearson LearningStudio for the facilitation of communications between faculty and students, submission of assignments, and posting of grades. This course site can be accessed through MYASU at http://my.asu.edu. In your My Classes list, the course name is a link to ecollege (not to Blackboard). This course does NOT use Blackboard at all..

Technical Support

See the Technical Support tab on the left of the student website for contact information.

Tutoring

Tutoring will be available in each of the ASU Math Labs locations. The hours will vary between locations. Please check the math lab schedule for tutoring hours on each campus.

Additional math tutoring assistance will be available on each of the ASU campus locations. Please check with the Math Tutoring Center on the Tempe campus and the Student Success Centers on the Downtown Phoenix, Polytechnic and West campus for additional math tutoring availability and hours: http://studentsuccess.asu.edu. Please note that these locations may be subject to change, depending on room availability.

Each of the tutors working in the Math Labs, Student Success Centers, Math Tutoring Center actively engage the students who come in for assistance. The tutors are trained in techniques of engagement, discussion, assessment, and troubleshooting in order to create a positive learning environment for all students. Students who are actively engaged using techniques of reading, writing, listening, and speaking with their applications of materials are more likely to be comfortable in the Math Lab space, interacting with tutors and professors in that same space, while retaining the content material that they will need to apply to future Math courses
and computations in non-Math courses, as well.

Student Conduct Statement

Students are required to adhere to the behavior standards listed in the
- Arizona Board of Regents Policy Manual Chapter V – Campus and Student Affairs: Code of Conduct
- ACD 125: Computer, Internet, and Electronic Communications
- ASU Student Academic Integrity Policy.

Students are entitled to receive instruction free from interference by other members of the class. If a student is disruptive, an instructor may ask the student to stop the disruptive behavior and warn the student that such disruptive behavior can result in withdrawal from the course. An instructor may withdraw a student from a course when the student's behavior disrupts the educational process under USI 201-10 *http://www.asu.edu/aad/manuals/usi/usi201-10.html*.

Appropriate classroom behavior is defined by the instructor. This includes the number and length of individual messages online. Course discussion messages should remain focused on the assigned discussion topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board messages may be deleted if an instructor feels it is necessary. Students will be notified privately that their posting was inappropriate.

Student access to the course Send Email feature may be limited or removed if an instructor feels that students are sending inappropriate electronic messages to other students in the course.

Academic Integrity

ASU expects and requires all its students to act with honesty and integrity, and respect the rights of others in carrying out all academic assignments. For more information on academic integrity, including the policy and appeal procedures, please visit http://provost.asu.edu/academicintegrity and the *Student Conduct Statement* below.

Accessibility Statement

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Disability Resource Centers (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities. DRC staff coordinate transition from high schools and community colleges, in-service training for faculty and staff, resolution of accessibility issues, community outreach, and collaboration between all ASU campuses regarding disability policies, procedures, and accommodations.

Students who wish to request an accommodation for a disability should contact the Disability Resource Center (DRC) for their campus.

Tempe Campus	**Polytechnic Campus**
http://www.asu.edu/studentaffairs/ed/drc/	http://www.asu.edu/studentaffairs/ed/drc/
480-965-1234 (Voice)	480-727-1165 (Voice)
480-965-9000 (TTY)	480-727-1009 (TTY)
West Campus	**Downtown Phoenix Campus**
http://www.west.asu.edu/drc/	http://campus.asu.edu/downtown/DRC
University Center Building (UCB), Room 130	University Center Building, Suite 160
602-543-8145 (Voice)	602-496-4321 (Voice)
	602-496-0378 (TTY)

International Students

Assistance for international students can be found at http://global.asu.edu/current

Syllabus Disclaimer

Instructors view the course syllabus as an educational contract between the instructor and the students. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Instructors reserve the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes via email or in the course site Announcements. Please remember to check your ASU email and the course site Announcements often.