

MAT 142: College Mathematics **Spring 2016 Course Syllabus**

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Office: WXHR A725	Office Hours: In Person: 9 am – 10 am Tuesday and Thursday 12 noon – 1 pm Thursday Virtual: 12 noon – 1 pm Wednesday (https://connect.asu.edu/beth_virtual_office)

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 sets, probability, statistics, finance, and geometry. Students will apply basic college-level mathematics to real-life problems. Appropriate for students whose major does not require MAT 117 or 170.

Course Objectives

- Students will apply knowledge about set theory (sets, set notation, and set operations) to solve problems
- Students will apply basic counting techniques and probability theory 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.
- Student will apply geometric concepts (dimensional analysis, perimeter, area, surface area, volume, similarity, proportions, and trigonometric function) to solve geometry-based problems.

Prerequisites

This course is open to students whose major does not require MAT 117 or MAT 170 and who have completed MAT 106, MAT 113 or MAT 117 with C or better or completed the Math Placement Test with a score of 32% or higher or completed MAT 110 (or MAT 194: EFM) 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 we are using the following text:

Thinking Mathematically, 6th Edition; by Robert Blitzer; Pearson Publishing.

Calculator

At minimum, a hand-held 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. You are expected to bring your calculator to class daily. **Cellular phone calculators and calculators on-line or on a computer are NOT permitted in class or during an exam.** Also, the sharing of calculators is not permitted during exams.

Homework Assignments: 20% of your grade

Each lesson contains a homework assignment. You are expected to read the textbook and watch the lecture video for each lesson before starting on the homework assignment. The deadlines for each of the homework assignments are listed in the schedule included in this syllabus.

Problem Solving Sessions: 25% of your grade

Each student is expected to come to class on each scheduled class day and participate. One class day 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. If you miss that class you will not receive your problem sets 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 as well as possibly losing participation points.** There are no make-up problem sets for missed class sessions. Please see your instructor if you have a documented medical reason for missing class. ***Such documentation must be presented to the instructor within one week of returning to class.***

Lab Sessions

The other class day each will be a lab session. This session is held in the computer lab (see your course schedule for room number). During this lab session, you should be working through the homework assignments and exam reviews. This is a time where you will be able to ask questions of the instructor and any assistants for the class. If you miss lab session you may lose points for that day.

Exams Reviews

Each exam has an exam review. Each exam review is recommended to be completed prior to taking the exam. There is no credit for completing the exam reviews. **It is required that you open the exam review and correctly answer at least one question prior to the related exam becoming available. This must be done before you show up at the Testing Center to take an exam.**

Exams: 55% of your grade

You will take five unit exams during the semester according to the target 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. No exam scores will be dropped. **ALL EXAMS MUST BE SCHEDULED AND TAKEN IN A TESTING CENTER RUN BY THE UNIVERSITY ACADEMIC SUCCESS PROGRAMS. It is not possible to access a test without a password that will be provided by the testing center.** 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. It is required for you to bring headphones to the computer lab for taking the exam.

Exam	Last Day to Take Exam
Sets Exam	Thursday, February 4, 2016
Probability Exam	Thursday, February 18, 2016
Statistics Exam	Thursday, March 17, 2016
Finance Exam	Thursday, April 7, 2016
Geometry Exam	Friday, April 29, 2016

Exam Warnings:

Any student who accesses a phone or any internet-capable device during an exam for any reason automatically receives a score of zero on the exam. All such devices must be turned off and put away and made inaccessible during the exam. Anyone using a camera device, other than your webcam, for any reason during an online assessment will receive a score of 0 for that exam, and possible further disciplinary measures.

Course Expectations & Student Resources

Course Expectations

- You are expected to complete approximately of 2 lessons per week as outlined on the course schedule.
- Over the course of the semester, you are expected to remain on schedule as designated by your instructor. Students who are not on schedule by the day/time designated by your instructor may receive a loss of points for your grade.
- Our class meetings for problem solving and/or lab work are not the only times you should be working on the course content. Since this is a blended 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 meetings to access the course content in the computer lab or your personal computer.
- Any student who is not on schedule as defined by your instructor may be required to attend at least 1.5 hours per week of tutoring in the tutoring lab. Verification sheet must be turned in each class for the week's tutoring. Failure to complete the tutoring each week will result in a loss of points.

Attendance

- For Fall and Spring semesters, classes that meet four days a week, the maximum number of allowed absences is eight (8). For classes that meet three days a week (MWF, for example), the maximum number of allowed absences is six (6). **For classes that meet two days a week, the maximum number is four (4).** For classes that

meet once a week, the maximum number is two (2). For classes that meet on other schedules, the number of absences allowed should reflect a similar ratio (two weeks worth of class meetings).

- Students must bring their ASU SunCard to class each day to scan in.
- Any students arriving 10 minutes or later after the class starting time will not be counted as present. Any student leaving before the instructor dismisses the class, will not be counted as present. Any student sleeping or doing other non-math activities in class will not be counted as present.
- All students are required to attend class until the instructor tells them that they have completed all the course requirements.
- **Students who exceed the number of allowed absences will receive a grade of E.**
- Students cannot be dropped for the course for non-attendance once they have attended the class.
- Any student who has not attended class 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.

Student Resources / Computer Lab

- Your primary resources for tutoring are Student Success Center tutoring centers. 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 tutor center and 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 and while using your computer in class.

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

Course Schedule

Meeting Date	Material Covered	Week of	To Do
Lab date: January 12 Class date: January 14	<input type="checkbox"/> Introduction <input type="checkbox"/> Basic Set Concepts <input type="checkbox"/> Set Operations <input type="checkbox"/> Venn Diagrams	1/11 - 1/17 (1)	Complete by 11:59 pm on 1/15 <input type="checkbox"/> Basic Set Concepts
Lab date: January 19 Class date: January 21	<input type="checkbox"/> Fundamental Counting Principle <input type="checkbox"/> Permutations and Combinations	1/18 - 1/24 (2)	<input type="checkbox"/> Schedule Sets Exam (this does not mean take test) - deadline to take test is 2/4 Complete by 11:59 pm on 1/19 <input type="checkbox"/> Set Operations Complete by 11:59 pm on 1/22 <input type="checkbox"/> Venn Diagrams
Lab date: January 26 Class date: January 28	<input type="checkbox"/> Basic Probability <input type="checkbox"/> Probability Rules	1/25 - 1/31 (3)	Complete by 11:59 pm on 1/26 <input type="checkbox"/> Fundamental Counting Principle Complete by 11:59 pm on 1/29 <input type="checkbox"/> Permutations and Combinations
Lab date: February 2 Class date: February 4	<input type="checkbox"/> Conditional Probability <input type="checkbox"/> Expected Value	2/1 - 2/7 (4)	<input type="checkbox"/> Take Sets Exam no later than Thursday, February 4. Complete by 11:59 pm on 2/2 <input type="checkbox"/> Basic Probability Complete by 11:59 pm on 2/5 <input type="checkbox"/> Probability Rules <input type="checkbox"/> Schedule Probability Exam (this does not mean take test) - deadline to take test is 2/18

Meeting Date	Material Covered	Week of	To Do
Lab February 9 Class date: February 11	<input type="checkbox"/> Data Organization and Visualization	2/8 - 2/14 (5)	Complete by 11:59 pm on 2/9 <input type="checkbox"/> Conditional Probability Complete by 11:59 pm on 2/12 <input type="checkbox"/> Expected Value
Lab date: February 16 Class date: February 18	<input type="checkbox"/> Measures of Central Tendency	2/15 - 2/21 (6)	<input type="checkbox"/> Take Probability Exam no later than Thursday, February 18.
Lab date: February 23 Class date: February 25	<input type="checkbox"/> Measures of Dispersion <input type="checkbox"/> Normal Distribution	2/22 - 2/28 (7)	<input type="checkbox"/> Schedule Statistics Exam (this does not mean take test) - deadline to take test is 3/17 Complete by 11:59 pm on 2/23 <input type="checkbox"/> Data Organization and Visualization Complete by 11:59 pm on 2/26 <input type="checkbox"/> Measures of Central Tendency
Lab date: March 1 Class date: March 3	<input type="checkbox"/> Simple Interest	2/29 - 3/6 (8)	Complete by 11:59 pm on 3/1 <input type="checkbox"/> Measures of Dispersion Complete by 11:59 pm on 3/4 <input type="checkbox"/> Normal Distribution
No class	<input type="checkbox"/> Spring Break	3/7 - 3/13	Spring Break
Lab date: March 15 Class date: March 17	<input type="checkbox"/> Compound Interest	3/14 - 3/20 (9)	<input type="checkbox"/> Take Statistic Exam no later than Thursday, March 17 Complete by 11:59 pm on 3/18 <input type="checkbox"/> Simple Interest

Meeting Date	Material Covered	Week of	To Do
Lab date: March 22 Class date: March 24	<input type="checkbox"/> Annuities <input type="checkbox"/> Amortized Loans	3/21 – 3/27 (10)	<input type="checkbox"/> Schedule Finance Exam (this does not mean take test) – deadline to take test is 4/7 Complete by 11:59 pm on 3/22 <input type="checkbox"/> Compound Interest
Lab date: March 29 Class date: March 31	<input type="checkbox"/> Dimensional Analysis	3/28 – 4/3 (11)	Complete by 11:59 pm on 3/29 <input type="checkbox"/> Annuities Complete by 11:59 pm on 4/1 <input type="checkbox"/> Amortized Loans
Lab date: April 5 Class date: April 7	<input type="checkbox"/> Perimeter and Area <input type="checkbox"/> Volume and Surface Area	4/4 – 4/10 (12)	<input type="checkbox"/> Take Finance Exam no later than Thursday, April 7 Complete by 11:59 pm on 4/8 <input type="checkbox"/> Dimensional Analysis
Lab date: April 11 Class date: April 13	<input type="checkbox"/> Triangles <input type="checkbox"/> Right Triangle Trigonometry	4/11 – 4/17 (13)	<input type="checkbox"/> Schedule Geometry Exam (this does not mean take test) – deadline to take test is 4/29 Complete by 11:59 pm on 4/12 <input type="checkbox"/> Perimeter and Area Complete by 11:59 pm on 4/15 <input type="checkbox"/> Volume and Surface Area
Lab date: April 19 Class date: April 21	<input type="checkbox"/> Review	4/18 – 4/24 (14)	Complete by 11:59 pm on 4/19 <input type="checkbox"/> Triangles Complete by 11:59 pm on 4/22 <input type="checkbox"/> Right Triangle Trigonometry

Meeting Date	Material Covered	Week of	To Do
Lab date: April 26 Class date: April 28	<input type="checkbox"/> Review	4/25 – 4/29 (15)	<input type="checkbox"/> Take Exam 5 no later than Friday, April 29.

Grading Policy

Point Distribution	Percentage
Sets Exam	5%
Probability Exam	5%
Statistics Exam	15%
Finance Exam	15%
Geometry Exam	15%
Problem Sets	25%
Homework Assignments	20%

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>	Sunday, January 24, 2016
<i>Course Withdrawal Deadline:</i>	Sunday, April 3, 2016

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 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.

ACADEMIC DISHONESTY

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <http://provost.asu.edu/academicintegrity>.

Student Conduct Statement:

Students are required to adhere to the behavior standards listed in Arizona Board of Regents Policy Manual Chapter V – Campus and Student Affairs: Code of Conduct (http://www.abor.asu.edu/1_the_regents/policymanual/chap5/5Section_C.pdf), ACD 125: Computer, Internet, and Electronic Communications (<http://www.asu.edu/aad/manuals/acd/acd125.html>), and the ASU Student Academic Integrity Policy (<http://www.asu.edu/studentaffairs/studentlife/srr/index.htm>).

Students are entitled to receive instruction free from interference by other members of the Lab. 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>).

- **Please note the following links to ASU's academic integrity policy <http://provost.asu.edu/academicintegrity/policy>**

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 course or roster email function.*** Please plan on checking your ASU email account 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> or at <http://ecollege.asu.edu>

- **Computer Requirements**

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 recommended web browser for these courses is [Mozilla Firefox](http://www.mozilla.com/) (<http://www.mozilla.com/>) or [Google Chrome](http://www.google.com/chrome) (<http://www.google.com/chrome>)

- [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)
- [Microsoft Office](http://office.microsoft.com/) (<http://office.microsoft.com/>) or a program that reads Powerpoint, Word, and Excel documents. A popular free alternative is [Open Office](http://www.openoffice.org/). (<http://www.openoffice.org/>)
- [Pearson Lockdown Browser](http://asuonline-dev.asu.edu/math/mml-lockdown/mmlldb.html) (<http://asuonline-dev.asu.edu/math/mml-lockdown/mmlldb.html>)

You are responsible for having a reliable computer and internet connection throughout the course.

Support

Technical Support

See the Technical Support link on the upper right of the student website for contact information.

Scheduling your Math Test

Please note that the scheduling site does not know your deadlines and may show you appointment slots after your exam deadline.

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

Cancelling your Math Test

[Click here for information on 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>)

Tutoring

Math tutoring assistance will be available on each of the ASU campus locations. Please check with the Student Success Centers on the Tempe, 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.

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.

Conduct

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](http://www.azregents.edu/policymanual/default.aspx) (<http://www.azregents.edu/policymanual/default.aspx>)
- [ACD 125: Computer, Internet, and Electronic Communications](http://www.asu.edu/aad/manuals/acd/acd125.html) (<http://www.asu.edu/aad/manuals/acd/acd125.html>)
- [ASU Student Academic Integrity Policy](http://provost.asu.edu/files/AcademicIntegrityPolicyPDF.pdf). (<http://provost.asu.edu/files/AcademicIntegrityPolicyPDF.pdf>)

Students are entitled to receive instruction free from interference by other members of the Lab. 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.

Appropriate Labroom 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.

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.

Disability Accommodations: Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. Note: Prior to receiving disability accommodations, verification of eligibility from the Disability Resource Center (DRC) is required. Disability information is confidential. Establishing Eligibility for Disability Accommodations:

Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should immediately contact the Disability Resource Center (DRC) for their campus.

Tempe Campus

<http://www.asu.edu/studentaffairs/ed/drc/>
 480-965-1234 (Voice)
 480-965-9000 (TTY)

Polytechnic Campus

<http://www.asu.edu/studentaffairs/ed/drc/>
 480-727-1165 (Voice)
 480-727-1009 (TTY)

West Campus

<http://www.west.asu.edu/drc/>
 University Center Building (UCB), Room 130
 602-543-8145 (Voice)

Downtown Phoenix Campus

<http://campus.asu.edu/downtown/DRC>
 University Center Building, Suite 160
 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.