



Scottsdale Community College  
Fall 2016

MAT 141 - Online

College Mathematics

40979

**Meeting Times TBA – Online Course**

**Instructor Information**

Instructor:

Michael Little Crow

Email:

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Phone:

480-423-6579

Office Location:

CM 417

Office Hours:

M/W 10:00am – 11:30am T/TH 7:45am - 8:45am

**Course Description**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry.

Prerequisites:

Prerequisites: (A grade of "C" or better in MAT090, or MAT091, or MAT092, or MAT093), or successful completion of Maricopa Modules, or satisfactory score on District placement exam, or a grade of "C" or better in MAT120, or MAT121, or MAT122.

**Course Objectives**

**MCCCD Official Course Competencies**

1. Distinguish between a subset and a proper subset.
2. Use Venn diagrams to solve applied problems involving the union, intersection, and complement of sets. (I)
3. Distinguish between experimental and theoretical probability, and use each to solve applied problems. (II)
4. Use conditional probability to solve applied problems involving dependent events. (II)
5. Use probabilities to calculate odds, either in favor of or against a particular event, and vice versa. (II)
6. Solve probability problems involving combinations and permutations. (II)
7. Organize, analyze, and display data using multiple representations. (III)
8. Calculate and interpret measures of central tendency and dispersion. (III)
9. Calculate and interpret measures of location (percentiles and quartiles). (III)
10. Solve applications using the normal distribution. (III)
11. Solve applications involving loans and amortizations. (IV)
12. Solve applications involving annuities. (IV)
13. Calculate the annual interest rate given the annual yield and vice versa. (IV)
14. Solve real-life problems using exponential growth. (IV)
15. Use appropriate formulas and units of measure for composite geometric shapes and

- figures from real life problems. (V)
16. Apply unit analysis skills to solve applied problems. (V)
17. Use dimensional analysis to convert units of measurement between different systems. (V)
18. Use written and verbal communication to describe process and results. (I-VI)
19. Model and solve real-world problems. (I-VI)

### Texts and Course Materials

Required: College Mathematics Fall 2016 – Online text provided at no charge  
 Calculator: TI-84 is recommended however access to internet based or downloadable apps will work as well.

### Course Policies

Students are responsible for the college policies included in the [college catalog and the student handbook](#) .

### Grading Standards & Practices

#### Quantitative Method of Assessment

#### Learning Activities – 40%

Each week there will be two chapters of activities contained in MathAS, our online resource systems. The instructions begin with a reading assignment, followed by a reading quiz to ensure understanding. Finally there is online homework activities to complete to assess you understanding. If you complete the reading quiz you will earn 1 point of extra credit. You earn 10 out 10 points for achieving 85% on the online homework and you earn 8.5 out of 10 points for 70% to 84%. Anything under 70% is work in progress.

#### 2 Exams & 1 mini-project – 40%

There will be two (2) exams given online through Canvas. If you are not able to take the exam when scheduled, you must contact me prior to the exam to request alternate arrangements. **Make up exams are not allowed unless you have made prior arrangements.**

#### Final Project – 20%

The final project is a presentation of your research findings from looking at how mathematics is used in various activities around the world. You will focus on one aspect of mathematics from within a topic of your choice. You may partner with one or more other students to complete a group presentation. Each of you will still produce an individual written report. The oral presentation may be submitted as a video or you may give the presentation, live in person during the final exam time.

**Grading:** Points will be weighted by assessment type as listed above and letter grades will be assigned as follows:

**60% - 69.9% D    70% - 79.9% C    80% - 89.9% B    90% - 100% A**

If the course is not completed with 60% or better a grade of W or F will be assigned.

#### Qualitative Method of Assessment

**We are the Owners of Our Actions:** As such, during this course of this class you agree to assess your learning behavior as to which of the two areas it falls into. **Skillful Actions** are those that do not harm anyone and that eventually lead to success. These type of actions are to be developed. **Unskillful Actions** are those that cause harm and do not lead to success. These type of actions are to be abandoned. All members of our learning community will implement an appropriate process for self-reflection and assessment followed by adjustment of their actions to result in the development of the highest individual and community human potentiality.

### Attendance Policy & Withdrawals

**Attendance** is measured by the regularity of logging into the course MathAS resource. You must trigger your first attendance by registering for the MathAS course management system as detailed in the instructions contained on the last page of this syllabus by Oct. 19 or you will be dropped from the course. After **14 consecutive days without login to the system (absences)** you may be **withdrawn** from the course.

**Withdrawal Policy**

- Student may initiate an official withdrawal from any course by submitting a withdrawal form with required signatures to the A&R office within published deadlines.
- Failure to attend any classes is not a guarantee for a refund or an excuse of debt incurred through registration. See Refund Policy in the [2016-2017 College Catalog](#) page 241.
- Official date of withdrawal is last date of attendance as determined by student’s withdrawal or as reported by the instructor.
- The official date of withdrawal will determine degree of refund, if any.
- Failure to file official withdrawal form within published deadlines can result in a failing grade and may affect refund of course tuition and fees.

Additional information on Withdrawals can be found in the [2016-2017 College Catalog](#) page 252.

**Academic & Student Support Services**

A variety of student services can be accessed online. Services are free of charge to all registered SCC students. Refer to the [SCC College Resources Student Home Page](#).

**Accommodations**

Scottsdale Community College provides equal opportunity to qualified students. If you have a documented disability (medical, physical, learning, psychological, etc.) and wish to request disability-related accommodations to complete course requirements, contact Disability Resources & Services (located in SC building; [480-423-6517](#)). Course requirements cannot be waived, but reasonable accommodations may be provided based on disability documentation and course objectives.

**Pregnant & Parenting Students**

Students who are pregnant may receive accommodations similar to those given to students with a temporary illness when deemed medically necessary. Students may be eligible to receive attendance leniency, extended deadlines, alternative test dates, or in cases of severe temporary illness, an “incomplete” from a course.

Students who are pregnant should contact Disability Resources & Services for consultation. If a student needs an academic or athletic accommodation due to pregnancy they will need to provide documentation, from their doctor, regarding their condition. Medical documentation regarding absences must also be provided. Disability Resources & Services is located in the SC Building; 480-423-6517.

**Sexual Harassment**

Sexual harassment is any unwelcome, verbal or physical conduct of a sexual nature that is sufficiently severe, persistent, or pervasive that it alters working conditions and creates a hostile environment or reasonably interferes with, limits, or deprives a student of the ability to participate in or benefit from any educational program or activity.

Sexual harassment and discrimination in any college education program or activity, is prohibited. Students should report any discrimination and/or harassment they experience and/or observe to the Vice President of Student Affairs (SCC’s Title IX Coordinator); located in the Administration Building (AD), phone [480-423-6300](#).

To view the full Sexual Harassment Policy, refer to the [Student Handbook](#) – page 254.

**SCC General Education Statement**

General Education enhances students’ abilities in critically analyzing and effectively communicating in Written, Oral, Visual, and Numerical form. General Education is WOVeN through the curriculum and co-curricular experiences at Scottsdale Community College.

**Student Misconduct Policy**

The classroom is an educational learning environment where students are expected to engage in behaviors which are conducive to their own learning and the learning of their peers. To facilitate this, respect for self and others is mandatory and necessary. Should a student exhibit disruptive behavior and/or use profane language to the extent that it interferes with the learning environment, an academic consequence may be imposed. Any student found by a faculty member to have committed academic misconduct may be subject to the following academic consequences:

- Warning – A notice in writing to the student that the student has violated the academic code.
- Grade Adjustment – Lowering of a score on a test or assignment.
- Discretionary Sanctions – Additional academic assignments determined by the faculty member.
- Course Failure – Failure of a student from a course where academic misconduct occurs. Further information can be found in the SCC Student Handbook, Academic Misconduct 2.3.11, page 277

### **Technology**

#### Technology and skills needed:

You should have regular access to a computer with an Internet connection. Additionally, you should be comfortable using the Internet and word processing tools. You should run the course materials on either FireFox or Chrome browsers. To download these browsers visit:

[FireFox Website](#)

[Chrome Website](#)

#### Computer Equipment / Access Needed

For this course, you will need a working e-mail address, a Canvas account, and access to the Internet. Internet access can be from school, home, or work.

- Maricopa Community Colleges provides all students with an email address. It is now the official way to receive communication from the college and district. Look up your email account at the [Maricopa Student Email Site](#).
- You will be able to log into the [Canvas Learning Management System](#) using your MEID and associated password.

#### For help with Canvas:

- Check out the [Canvas self-help site](#) or call 1-888-994-4433 for 24/7 support
- Visit the [Maricopa 24/7 help site](#) for a live chat with a support team member
- The [Start Here Link](#) has information on student and academic resources as well as videos on how to use Canvas

*Note:* It is essential that you set your notifications in Canvas before you get started with the course. [Here is a video](#) to help you set your notifications.

#### SCC Help Desk

- Contact the SCC Help Desk at (480) 423-6274. Hours are Monday – Friday 8a-8p and Saturday from 8a-4p. Summer Hours vary.

### **Code of Civility**

Instructors are expected to be professional, courteous, respectful and empathic to students. They will:

Begin and end class on time

- Be prepared for each class session
- Provide academic feedback and grade assignments in a timely manner
- Be available for individual consultation
- Clarify assignments and inform students of any adjustments to the class schedule

Students are expected to be reflective, courteous, respectful and empathic to classmates, instructor and other college staff assisting in their learning. Students are expected to arrive on time for class and remain until class has ended. The instructor should be notified in advance if there is a need to leave early. Students will be expected to:

- Mute mobile phones and pagers before entering classroom
- Be in class and be on time
- Be prepared for class sessions
- Participate in class activities

- Follow instructions and complete assignments
- Keep up with and turn in assignments by due dates
- Put forth their best efforts
- Exchange phone numbers with two classmates in order to keep current.
- Ask questions when they don't understand
- Maintain knowledge of their grade status
- Contact instructor right away about concerns or situations that may interfere with their success in class
- Comply with policies found in the [SCC Catalog and SCC Student Handbook](#)

**Diversity and a Safe Learning Environment**

This classroom will be a safe learning environment for every individual as far as I am able to ensure that outcome. This means I will treat each student with respect, and in turn I expect respect to be given to the instructor and every individual in this course. Disagreement does not equal disrespect. We all bring different points of view, different personal values, different life experiences, and different personal preferences with us into the classroom. This diversity makes for great discussion, adds interesting dimensions to our interpersonal relationships, and is welcome in the academic arena. Though we celebrate our differences, I expect each student to respect the rights and needs of fellow classmates. Students cannot feel safe to express themselves without the assurance that their ideas, attitudes and beliefs will be treated with respect.

**Academic Honesty**

- Every student in this class is expected to produce his/her own original work.
- Plagiarism is unacceptable and will not be tolerated.
- Plagiarism will result in being dropped from the course with a failing grade.
- Plagiarism will result in actions as outlined in the [College Catalog](#).

**Using Web-Based Applications**

We will be using web-based for academic use in this course. By default, the web-based/discussion applications are open to the public for the purpose of sharing your work with the larger Internet community; specifically, using web-based presentation tools, online discussion and comments will:

- provide an opportunity to track and reflect upon your design process/progress,
- provide an opportunity to collaborate on design projects, and
- engage a larger audience who may provide feedback on the project.

To use the web-based/discussion/comment applications responsibly please observe all laws, SCC, and MCCCDCD policies that are incorporated into the Codes of Conduct and Academic Integrity. Some specific aspects of law and policy that might be well to remember are prohibitions against copyright infringement, plagiarism, harassment or interferences with the underlying technical code of the software. Some resources to remind yourself about SCC and MCCCDCD policies as well as laws about copyright and fair use:

- [SCC College Catalog and Student Handbook](#)
- [MCCCDCD Copyright Guidelines](#)

As a student using the web-based/discussion/comment applications certain rights accrue to you. Any original work that you make tangible belongs to you as a matter of copyright law. You also have a right to the privacy of your educational records as a matter of federal law and may choose to set your discussion privacy settings to private and only share with the instructor and your classmates. Your contributions to the web-based/discussion/comment applications constitute an educational record. By contributing to the web-based/discussion/comments applications, and not taking other options available to you in this course equivalent to this assignment that would not be posted publicly on the Internet, you consent to the collaborative use of this material as well as to the disclosure of it in this course and potentially for the use of future courses.

**Campus Security Services**

The main security services that are provided on campus are provided to faculty, staff and students on a regular basis. Most importantly if you see something "out of place" or suspicious please contact the safety Department.

SCC Emergency Numbers: Call 4-0- 911 or 480-784- 0911

All Maricopa County Community College Public Safety offices have a fully monitored, centralized dispatch center. This center is actively staffed 24 hours a day and these

numbers directly access the dispatch center, where dispatchers will then send officers to the location of the emergency activity. Non-emergency situations should be reported directly to the SCC campus safety office by calling 480-423- 6175 or x36175

Patrol: We have a 24/7-patrol service by police officers and police service aides. Both are marked with uniforms and patrol on foot, bike, cart or patrol car. Police officers are AZPOST certified and the police aides are civilian, some with prior law enforcement or military experience.

Cameras: there are several security camera on campus they are operational 24/7. The cameras are digital recording devices and are subject to computer errors.

Blue outdoor call boxes/inside classroom "Talk Master" systems: These devices activate at the press of a button and are answered by our on-campus Dispatch 24/7. The activation of these systems should only be for Emergencies: crime in progress, medical emergencies, and suspicious person/vehicle calls. Should you accidentally activate one in the classroom a police officer will be dispatched regardless of your response and comments (i.e. It's OK). Officers may or may not enter the classroom to assess the situation when they arrive.

Safety Escort / Disability Shuttle Service: Safety can be called for a safe escort to your car or class, also in the case of disability assistance. Security staff may arrive by electric cart, on foot or on a bike depending on the request. The shuttle may take a few minutes but will arrive as soon as resources allow.

Building Lockdown: In the unlikely event of a violent incident involving an immediate threat, Public Safety or other college officials may order a lockdown of the campus. Notification of the lockdown may come from several sources including telephones, ALERTUS beacons or pages to student and employee cellular phones. If a lockdown is ordered:

- Locate a safe classroom, office, or meeting room
- Assist others in moving to the safe room
- Lock the door if possible
- Close any window shades in the room
- Turn off all lights if possible
- Move away from doors and windows
- Remain in the safe location and quietly await further instructions

During a lockdown, the Public Safety office should only be contacted in an emergency, such as a serious injury or if you have additional information on a suspect's location.

Active Shooter Response: Three aspects to remember are run, hide, and fight

If you can escape, do so – run

- Know at least two exits out of your room/building
- Take different routes into and out of your room/building to develop familiarity with avenues of escape
- Leave your belongings and get out
- If you encounter responding police officers, raise hands and follow their orders

If you are unable to run – hide

- Lock doors (block if unable to lock), turn off lights, silence cell phones
- Locate areas inside your room/building where you can hide
- Do not "bunch up" – spread out
- Turn off lights, silence cell phones

If you cannot run and you have been discovered – be prepared to fight

- Locate items inside your room/building that could be used as weapons
- Do whatever you have to do to incapacitate the shooter
- Do not be tentative – commit to action

Other important things to know:

- The first police officers on scene will not render aid or stop to help the injured – they will be focused on finding the shooter and stopping any future injuries (victims will be treated/evacuated when additional officers arrive)
- Responding officers will not necessarily know who the shooter is – everyone they encounter may be a threat
- Remain calm and follow the officers’ instructions
- Drop items in your hands
- Keep your hands visible
- Avoid quick movements toward officers (do not reach for or grab them)
- Be prepared to provide as much information as you can to help the officers find the shooter

Helpful links to review for your safety:

- <http://www.scottsdalecc.edu/public-safety/emergency-procedures>
- <https://administration.maricopa.edu/the-maricopan/what-to-do-in-an-active-shooter-situation>

[YouTube](#) has several good videos produced by police departments that can be accessed by searching “run hide fight” in the YouTube search bar

Students are responsible for the information contained in this syllabus.

The information in this syllabus is subject to change based on the discretion of the instructor.

For each chapter of content begin by

- 1) Reading the online textbook chapter contained in the unit
- 2) Complete to reading quiz to ensure understanding
- 3) Complete the online homework to assess understanding

The mini-project instructions and the two online exams are contained in Canvas and can be accessed through the Modules section of Canvas.

### MAT 142 Preliminary Course Schedule – Online Course 10/17 to 12/15

Week Starting	First Half of Week	Second Half of Week
Oct 17	Chapter 1 - Geometry	Chapter 2 - Measurement and Unit Analysis
Oct 24	Chapter 3 - Linear Functions	Chapter 4 - Percentages
Oct 31	Chapter 5 – Savings Plans	Chapter 6 – Annuities and Loans
Nov 7	Buying vs Renting Mini-project	<b>Financial Math Exam</b>
Nov 14	Chapter 7 - Venn Diagrams	Chapter 8 - Introduction to Probability
Nov 21	Chapter 9 - Probability and Counting	Chapter 10 - Statistics
Nov 28	Chapter 11 - Describing Data	Chapter 12 - The Normal Distribution
Dec 5	<b>Statistics Exam</b>	Final Project Preparation
Dec 12	<b>Final Meeting time for Presentations of Final Projects</b> Monday December 12 <sup>th</sup> from 11:30am – 1:20pm	

**DISCLAIMER:**

The instructor reserves the right to modify this syllabus to better meet the needs of the students. The course outline serves as a guide. Dates and topics may change.

## Registering for the online resources:

### MAT141 Fall 2016 Little-Crow

- 1) Firefox is the preferred browser for running Math AS. Using firefox type the following URL into the browser address window:

<https://mathas.pvc.maricopa.edu>

- 2) From the login page click on the "Register as a new student" link circled in red.

SCC IMathAS is a web based mathematics assessment and course management platform.

This system is designed for mathematics, providing delivery of homework, quizzes, tests, practice tests, and diagnostics with rich mathematical content. Students can receive immediate feedback on algorithmically generated questions with numerical or algebraic expression answers.

If you already have an account, you can log on using the box to the right.

If you are a new student to the system, Register as a new student

If you are an instructor, you can request an account

Also available:

- Help for student with entering answers
- Instructor Documentation

Accessibility: Help

- Use visual display
- Force image-based graphs
- Force image-based math
- Force image based display
- Use text-based display

Login

Register as a new student

Forgot Password

Forgot Username

Browser check

SCC IMathAS is powered by IMathAS © 2006-2011 David Lippman

The Course ID: **4308** and Enrollment Key: **2016** along with the other

Home > Form

### New User Signup

Enter a username. Use only numbers, letters, or the \_ character.:

Choose a password:

Confirm password:

Enter First Name:

Enter Last Name:

Enter E-mail address:

Notify me by email when I receive a new message:

If you already know your course ID, you can enter it now. Otherwise, leave this blank and you can enroll later.

Course ID:

Enrollment Key:

Sign Up

requested information (you can choose any user ID and password that you like, just be sure to remember it or write it down.