Course Syllabus
Math 27 PreCalc & Trig, Spring 2023

Section #7226
M&W 5:30-8:30PM in Kunde 103

Instructor Information

Instructor: Cortney Schultz
Email: cschultz@santarosa.edu
Office location: Kunde Hall 219
Phone: (707) 527–4705

Office Hours: In-Person are held in Kunde 219 unless stated otherwise

Monday: 1-2PM & 4:30-5:30PM
Tuesday: 1-2PM
Wednesday: 12-1PM (in Math Lab) & 4:30-5:30PM
Thursday 1-2PM

Prerequisite: Completion of MATH 156 OR MATH 154 OR MATH 155 or AB705 placement into Math Tier 3 or higher. *Math Tier 3 means that you have Passed Algebra 2 or Integrated Math 3 with C or better and have a HS GPA less than 2.7*

Course Description: College algebra and trigonometry topics, including equations, expressions, functions, inverse functions, and graphs. Also includes polar coordinates, parametric equations, complex numbers, vectors, sequences and series.

This course is one in which you will learn pre-calculus and trigonometry in one semester.
That is a lot of material! If you feel that you would prefer to take precalculus and trigonometry separately, you have the option to sign up for Math 25 (pre-calculus) one semester and Math 58 (trigonometry) the following semester.

Student Learning Outcomes: Here is the link for Math 27 course outline at SRJC.
At the conclusion of this course, the student should be able to:

1. Perform advanced operations with functions (polynomial, rational, absolute value, radical, exponential, and logarithmic), understand the characteristics and graphs of these functions, and apply knowledge to modeling problems.
2. Solve selected algebraic equations symbolically over the complex numbers, and solve polynomial, rational, absolute value, radical, exponential, and logarithmic equations graphically and symbolically over the real numbers.
3. Define and graph the six trigonometric functions and their inverses, solve equations involving trigonometric functions symbolically and graphically, and verify trigonometric identities.
4. Use trigonometric functions, identities, and Laws of Sines and Cosines to solve applications problems.
5. Define, graph, and demonstrate appropriate applications of vectors, complex numbers, polar coordinates, parametric equations, and inverse functions.

Required Course Materials

Calculator: A graphing calculator is required for this course. I will be demonstrating on a TI 84+.
You are not allowed to use computer calculators on exams.

Textbook: *College Algebra*, 3rd corrected edition by Carl Stitz & Jeff Zeager (this is a FREE online textbook)

Link to textbook: **https://www.stitz-zeager.com/szprecalculus07042013.pdf**

WebAssign Online Homework: Homework will be completed and submitted online.
To access the online homework, you must purchase an access code. WebAssign online homework allows students 2 weeks of free access before asking them to purchase the access code.

To create an account for WebAssign, start by accessing WebAssign through our Canvas course page.

Grading			
	Quizzes	10%	$A \geq 90$
	Homework	15%	$80 \leq B < 90$
	Exams (4 @ 15% each)	60%	$70 \leq C < 80$
	Comprehensive Final Exam	15%	$60 \leq D < 70$
		100%	$F < 60$

Exams

Exams will be proctored and taken in person. Unless the state of our community and world change for some unexpected reason, there will be no online exams throughout the semester.
Four midterm exams and a comprehensive final exam will be given during the semester, and all exams must be taken on the scheduled dates. **If you miss an exam, you must contact me within 24 hours.** If the absence is excused, your final exam score will replace your missed midterm score.
Make-up exams are not given. If you are absent due to an illness, you are required to provide Prof. Schultz with a doctor's note.

Canvas

Throughout the course, I will post notes, handouts, exam keys, grades, and other resources on Canvas.

Group Quizzes

Eight group quizzes will be given throughout the semester. You may submit your quiz in person or submit your quiz on Canvas. One submission for each group will be graded and everyone in that group will receive the same score – make sure to go over your solutions with your group members before turning in your quizzes! Your 2 lowest group quiz scores will be dropped. Group quizzes will be due on select **Wednesdays** by 11:59PM.

Two quizzes will be done individually during class – these scores will not be dropped.

Homework Grading/Late Homework

Select homework sections will be due twice a week on **Sundays** and **Wednesdays** by 11:59PM.

You have 5 *attempts* at answering a homework question. If the first 2 attempts are incorrect, SEEK HELP.

If homework is not completed by the due date and time, you have 24 hours to complete the remaining problems for half-credit.

Attendance

Daily attendance is essential to your success in this course. You may be dropped from the course if you have more than 5 absences. Arriving late or leaving class early may count as an absence.

Class Behavior Rules

- Students are to act respectfully and pay attention while in class.
- Please arrive on time and stay for the entire class period.
- Cell phones are to be turned off or set to silent mode.
- Students are expected to read the textbook.
- Students are expected to ask questions.
- Students are expected to be active participants in their education and do their best every day.

Important Academic Calendar Dates

- Wednesday, January 18th — Classes begin
- Sunday, January 29th — Last day to drop a class and receive a refund
- Sunday, February 5th — Last day to drop a class without a "W" symbol
- **Sunday, April 23rd — Last day to drop a class with a "W" symbol**
- **MONDAY, MAY 22nd — FINAL EXAM (4:00 – 6:45PM)**

Cheating/Plagiarism

Please read SRJC's policy/procedure on academic integrity at http://www.boarddocs.com/ca/santarosa/Board.nsf/goto?open&id=A63TMC78051C

All exams (including the final) must be done by the student alone. Any student who violates this rule will receive a zero. A student who commits a second offense may receive a failing grade in the class.

Reminder: COPYING SOLUTIONS FROM THE INTERNET IS CHEATING

Accommodations for Disabilities

Please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to me as soon as possible. You may also speak with me privately during office hours about your accommodations.

Tutoring

Free tutoring is available to all registered SRJC students.

- **SRJC Tutorial Centers** can be accessed through the website: https://college-skills.santarosa.edu/srjc-tutorial-centers
- **Math Lab Tutorial Center**: https://mathematics.santarosa.edu/online-math-lab-tutoring

Calculator & Laptop Rentals

Students may place online requests for Reserve items, including textbooks, calculators and laptops. This curbside pick-up service will be available by appointment. Loan periods will be for the entire Spring 2022 semester. Reserve item check-outs to students will be on a first-come, first-served basis, until all physical copies are gone. Students will keep Reserve items for the entire semester.

Use this link to find more information about rentals: https://libguides.santarosa.edu/RemoteAccess

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
	5:30-8:30PM		5:30-8:30PM	
Week 1 Jan 16 - 19	**NO CLASS**	**NO CLASS**	*Syllabus & Algebra Review*	
Week 2 Jan 23 - 26	**1.3** Intro to Functions **1.4** Function Notation **GROUP QUIZ #1**		**1.5** Function Arithmetic **1.6** Graphs of Functions	
Week 3 Jan 30 - 2	**1.6** Graphs of Functions **1.7** Transformations **GROUP QUIZ #2**		**1.7** Transformations & Graphs of Piece-Wise Functios	
Week 4 Feb 6 - 9	**2.1** Linear Functions *Exam 1 Review*		**EXAM 1** **2.2** Absolute Value Functions	
Week 5 Feb 13 - 16	**2.2** Absolute Value Functions **GROUP QUIZ #3**		**2.3** Quadratic Functions	**NO CLASS**
Week 6 Feb 20 - 23	**NO CLASS**		**2.4** Inequalities with Absolute Value and Quadratic Functions	
Week 7 Feb 27 - 2	**3.1** Graphs of Polynomials **3.2** The Factor and Remainder Theorem **GROUP QUIZ #4**		**3.3** Real Zeros of Polynomials **3.4** Complex Zeros and the Fundamental Theorem of Algebra	
Week 8 Mar 6 - 9	**3.4** Complex Zeros and the Fundamental Theorem of Algebra **4.1** Intro to Rational Functions **GROUP QUIZ #5**		**4.1** Intro to Rational Functions **4.2** Graphs of Rational Functions *Exam 2 Review*	

Week 9 Mar 13 - 16	**EXAM 2** **4.2** Graphs of Rational Functions		**4.3** Rational Inequalities and Applications	
Mar 20 - 23	**SPRING BREAK**			
Week 10 Mar 27 - 30	**5.1** Function Composition **5.2** Inverse Functions **GROUP QUIZ #6**		**5.2** Inverse Functions **5.3** Other Algebraic Functions	
Week 11 Apr 3 - Apr 6	**6.1** Introduction to Exponential and Logarithmic Functions **6.2** Properties of Logarithms **GROUP QUIZ #7**		**6.3** Exponential Equations **6.4** Logarithmic Equations	
Week 12 Apr 10 - 13	**6.4** Logarithmic Equations **10.1** Angles and their Measure **IN CLASS QUIZ #8** *(Logs)*		**10.1** Angles and their Measure **10.2** The Unit Circle *Exam 3 Review*	
Week 13 Apr 17 - 20	**EXAM 3** **10.2** The Unit Circle		**10.3** The Six Circular Functions & Identities **10.4** Trig Identities	
Week 14 Apr 24 - 27	**10.4** Trig Identities **10.5** Graphs of Trig Functions **IN CLASS QUIZ #9** *(Trig)*		**10.5** Graphs of Trig Functions **10.6** Inverse Trig Functions	
Week 15 May 1 - 4	**10.6** Inverse Trig Functions **10.7** Trig Equations **GROUP QUIZ #10**		**10.7** Trig Equations **11.2/11.3** Laws of Sines & Cosines *Exam 4 Review*	
Week 16 May 8 - 11	**EXAM 4** **11.2/11.3** Laws of Sines & Cosines		**11.4** Polar Coordinates	
Week 17 May 15 - 18	**11.8** Vectors **11.9** Dot Product and Projection		**Ch 9** Sequences, Series, Binomial Theorem *Final Exam Review*	
Finals Week May 22 - 25	**Final Exam: Monday, May 22nd**			

Sections are subject to change throughout the semester