

Course Code & No. - Section: Math 115 - Section 1
Course Title (Credits): Trigonometry & Analytic Geometry (3)
Term & Year: Spring / 2014
Course Ref. No. (CRN): 10300

Instructor: Katie Larkin
Email: klarkin@sierranevada.edu
Office Hours: By appointment

Class Meeting Time: M/W 10:00 – 11:15
Location: Prim Library 213

Prerequisites: Math 110 or consent of instructor

Course Description

A course designed to prepare students for the study of calculus. The topics covered include the following: algebraic skills, measurements of angles, trigonometric functions and inverse trigonometric functions, trigonometric equations and identities, graphing of trigonometric functions, solutions of triangles, applications, polar coordinates, vectors, DeMoivre's theorem, and analytic geometry.

Student Outcomes

The course is designed to guide SNC students towards mathematical proficiency by providing opportunities where learners may practice and demonstrate:

1. Master trigonometric concepts so that calculus is better understood.
2. Understand and apply trigonometric functions to solve problems.
3. Analyze basic algebraic functions by graphing, evaluating, composing and finding inverses.
4. Evaluate the six trigonometric functions of special angles and their inverses.
5. Graph basic trigonometric functions and their transformations.
6. Verify trigonometric identities using valid substitutions and algebraic manipulations.
7. Generate solutions to trigonometric equations including the use of trigonometric identities.
8. Solve right and oblique triangles and related applications.
9. Use polar coordinate system to graph polar equations and evaluate roots and powers of complex numbers.
10. Perform basic operations on vectors.

The Mathematical Association of America's (MAA) Committee on the Undergraduate Program in Mathematics (CUPM) in developing future mathematics curriculum has made the following preliminary recommendations

- Students should achieve mastery of rich and diverse set of mathematical ideas and should experience mathematics as an engaging field with contemporary open questions.
 - Students should be able to think analytically and critically, to formulate and solve problems, and to interpret their solutions. They should understand and appreciate the value and validity of careful reasoning, precise definition, and close argument.
 - Students should have experience applying knowledge from one branch of mathematics to another and from mathematics to other disciplines.
 - Students should be able to use a variety of technology tools.
 - Students should be able to communicate mathematics both orally and in writing; they should be able to read mathematics.
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Methods of Assessing Student Outcomes

Homework problems, in class assignments, group work, exams.

Instructional Strategies

Lecture/Modeling/Demonstration/Examples/Practical Exercise/Active Participation/Cooperative Learning/Homework/Examination

Required Texts and Materials

1. Trigonometry by McKeague, 7th ed. ISBN: 9781111826857

Class Requirements

- Homework – 25%
- In-class Assignments – 20%
- Exams – 40%
- Cumulative Final Exam – 15%

Grading Policy

All exams and assignments will be graded on the following straight scale:

A: 90 - 100%, B: 80 – 89%, C: 70 - 79%, D: 60 - 69%, F: Below 60%

Attendance Policy

Attendance will be recorded in the beginning of class but it will not directly affect a student's grade.

However, if a student misses or arrives late to a class in which an assignment was given, the student will receive a zero for that assignment and it cannot be made up.

Homework Policy

Homework will be assigned from the textbook. Work must be shown for each problem to receive credit. No late work will be accepted. The lowest homework grade will be dropped.

In-class Assignment Policy

Assignments, excluding homework, will be given in class and may be announced or unannounced. In-class assignments cannot be made up under any circumstances. The lowest in-class assignment grade will be dropped.

Exam Policy

Exams will be taken during class time and the students will be able to use a calculator. Exams cannot be made up unless an arrangement has been made with me prior to exam day given an acceptable reason for missing. The final exam will be cumulative and will be given on Friday, 5/9/14 from 11:30 – 2:30.

How To Succeed In This Course

- **Keep up with the work!** Math can be a difficult subject; it is **imperative** that you keep up with the work in this class! Pay attention to the schedule and don't miss assignments.
 - **Come to Every Class Prepared!** Before each class you should read the appropriate material (see schedule). You should also be sure to review previous material and ask questions when necessary.
 - **Make use of the Tutoring Center!** I have limited office hours, therefore it is imperative that you get the most out of my lectures and go to the Tutoring Center if you're having any trouble at all and need some assistance. The Tutoring Center, staffed with knowledgeable tutors, is located on the 3rd floor
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of Prim Library and is open for math drop-in tutoring. There are also computers available for use. Check out the website for more information: [SNC Tutoring Center](#)

- **Form study groups!** They can be a great source of help! You can work together on homework assignments, but you need to submit the answer you believe is correct.

IMPORTANT DATES

- **Jan 20:** MLK Jr Day – SNC closed
- **Feb 17:** President's Day – SNC closed
- **Mar 17 - 21:** Spring Break – SNC closed
- **Apr 1:** Last day to change grade status or withdraw without academic penalty
- **May 7:** Study Day – No class
- **May 9:** Final Exam (11:30 – 2:30)

Prim Library Resources

Using the library's resources effectively (not just Internet resources) contributes to developing each of SNC's core themes by exposing students to high quality academic resources, diverse opinions, new ideas, and a future that includes building on a liberal arts education. In this course, you will be expected to utilize the library's resources (either on-site or remotely) as you complete your assignments.

Sanctions for Cheating and/or Plagiarism

The Honor Code

The faculty of SNC believes students must be held to high standards of integrity in all aspects of college life in order to promote the educational mission of the College and to encourage respect for the rights of others. Each student brings to the SNC community unique skills, talents, values and experiences which, when expressed within the community, contribute to the quality of the educational environment and the growth and development of the individual. Students share with members of the faculty, administration and staff the responsibility for creating and maintaining an environment conducive to learning and personal development, where actions are guided by mutual respect, integrity, responsibility and trust. The faculty and students alike must make diligent efforts to ensure high standards are upheld by their colleagues and peers as well as themselves. Therefore faculty and students accept responsibility for maintaining these standards at Sierra Nevada College and are obligated to comply with its regulations and procedures, which they are expected to read and understand.

Consequences of Violating the Student Honor Code

SNC students and faculty share the responsibility for maintaining an environment of academic honesty. Thus, all are responsible for knowing and abiding by the SNC Faculty/Student Honor Code published in the current SNC Catalog. Faculty are responsible for presenting the Honor Code and the consequences of violating it to students at the start of their classes AND for reporting all incidences of academic dishonesty to the Provost. Students are responsible for knowing what constitutes CHEATING, PLAGIARISM and FABRICATION and for refraining from these and other forms of academic dishonesty. Violations of the Honor Code become part of a student's academic record.

- 1st Offense: Student receives a zero for assignment/exam and counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 2nd Offense: Student fails course and receives counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.
- 3rd Offense: Student is expelled.

ADA Accommodations

In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, hconover@sierranevada.edu, office in Prim Library: PL-304.

The SNC Email System

The SNC email system is the official communication vehicle among students, faculty members and administrative staff and is designed to protect the confidentiality of student information as required by the Family Educational Rights and Privacy Act of 1974 Act (FERPA). Students should check their college email accounts daily during the school year.

Students have a right to forward their SNC e-mail to another e-mail account (for example, @hotmail or @gmail). However, confidentiality of student information protected by FERPA cannot be guaranteed for SNC e-mail forwarded to an outside vendor. Having email redirected does not absolve a student from the responsibilities associated with official communication sent to his or her SNC email account.

The Sierra Nevada College Mission Statement:

Sierra Nevada College graduates will be educated to be scholars of and contributors to a sustainable world. Sierra Nevada College combines the liberal arts and professional preparedness through an interdisciplinary curriculum that emphasizes entrepreneurial thinking and environmental, social, economic and educational sustainability.

The Core Themes:

Liberal Arts	Professional Preparedness
Entrepreneurial Thinking	Sustainability

Tentative Schedule**SNC - Math 115 - Section 1 - Spring 2014**

Week	Date	Chapter
1	M, 1/20	MLK Jr Day - No Class
	W, 1/22	Introduction
2	M, 1/27	1
	W, 1/29	1
3	M, 2/3	1
	W, 2/5	2
4	M, 2/10	2
	W, 2/12	2
5	M, 2/17	President's Day - No Class
	W, 2/19	3
6	M, 2/24	3
	W, 2/26	3
7	M, 3/3	Review
	W, 3/5	Exam 1
8	M, 3/10	4
	W, 3/12	4
9	M, 3/17	Spring Break
	W, 3/19	Spring Break
10	M, 3/24	4
	W, 3/26	4
11	M, 3/31	4
	W, 4/2	Exam 2
12	M, 4/7	5
	W, 4/9	5
13	M, 4/14	5
	W, 4/16	6
14	M, 4/21	6
	W, 4/23	6
15	M, 4/28	6
	W, 4/30	Exam 3
16	M, 5/5	Final Exam Review
	W, 5/7	Study Day - No Class
	F, 5/9	Final Exam: 11:30 - 2:30

**Schedule is subject to change.*