Math 1060 Trigonometry Fall 2015

Syllabus

College Wide Learning Outcomes

SLCC is committed to fostering and assessing the following student learning outcomes in its programs and courses:

- Acquiring substantive knowledge in the field of their choice
- Developing quantitative literacy
- Developing the knowledge and skills to be civically engaged
- Thinking critically
- Communicating effectively

Math Department Website

The SLCC Math homepage is located at <u>http://www.slcc.edu/math/</u>. It contains FAQs, policies, final exam information, and tips for student success.

General Education Statement

This course fulfills the Quantitative Literacy (QL) requirement for the General Education Program at Salt Lake Community College. It is designed not only to teach the information and skills required by the discipline, but also to develop vital workplace skills and to teach strategies and skills that can be used for life-long learning. General Education courses teach basic skills as well as broaden a student's knowledge of a wide range of subjects. Education is much more than the acquisition of facts; it is being able to use information in meaningful ways in order to enrich one's life. While the subject of each course is important and useful, we become truly educated through making connections of such varied information with the different methods of organizing human experience that are practiced by different disciplines. Therefore, this course, when combined with other General Education courses, will enable you to develop broader perspectives and deeper understandings of your community and the world, as well as challenge previously held assumptions about the world and its inhabitants.

General Education EPortfolio

Each student in General Education courses at SLCC maintains a General Education ePortfolio. Instructors in every Gen Ed course will ask you to put at least one assignment from the course into your ePortfolio, and accompany it with reflective writing. It is a requirement in this class for you to add to your ePortfolio one of the projects, as well as a reflection. This syllabus details the assignment(s) and reflection(s) you are to include. Your ePortfolio will allow you to include your educational goals, describe your extracurricular activities, and post your resume. When you finish your time at SLCC, your ePortfolio will then be a multimedia showcase of your educational experience. For detailed information visit http://www.slcc.edu/gened/eportfolio. Make sure to check out the "Info for Students" page.

After you have picked an ePortfolio platform, go to the corresponding help site to watch the tutorials and look at the examples so you can get started on your own:

- <u>https://sites.google.com/site/slcceport</u>
- <u>http://slcceportfolio.wordpress.com</u>
- <u>http://slcchelpsite.jimdo.com/</u>
- http://slcceportfolio.wix.com/slcceportfolio

If you would like to start your ePortfolio in a computer lab with a person there to help you, sign up online for one of the free workshops at the Taylorsville-Redwood library: <u>http://libweb.slcc.edu/services/forms/eportfolio</u>. You may also visit an ePortfolio Lab (in the Taylorsville-Redwood Library LIB 047 as well as in HTC 102a on the Jordan Campus) during business hours, and staff will help you without an appointment. Finally, questions regarding the ePortfolio can be directed to eportfolio@slcc.edu.

Course Objectives

This course is intended to prepare students for a comprehensive course in calculus by teaching concepts and facts required for a major in math, physics, chemistry, engineering, and computer science, as well as many of the life sciences. The course presents trigonometric functions, polar functions, trigonometric equations, and solutions of acute triangles, right triangles, and oblique triangles. Polar coordinates, complex numbers, parametric equations, and vectors are also introduced. Students are required to know basic trigonometric facts such as the sine, cosine, and tangent values of special angles without using a calculator. Students are also required to know the fundamental trigonometric identities without looking them up.

Student Learning Outcomes

- Student will understand important trigonometric concepts.
- Student will acquire skills necessary for expressing concepts, ideas, and problem-solving techniques using correct mathematical notation and language.
- Student will gain knowledge of mathematical theory and develop skills in logical thinking, leading to understanding of mathematical proofs.
- Student will organize, present and explain solutions to problems involving real-world applications, both individually and through group work.
- Student will have the necessary knowledge and skills to succeed in a calculus course.

Prerequisite

Within the last year, you must have completed a college algebra course, such as Math 1050, with a grade of C or better, or a CPT score of at least 70 on the college algebra section. If you do not have documentation verifying one of these prerequisites, you will be advised to register for and complete Math 1050 here at the College.

Textbook

<u>College Trigonometry, 3rd Corrected Edition</u>, Carl Stitz and Jeffrey Zeager The free pdf version of this book can be found at <u>http://stitz-zeager.com/szct07042013.pdf</u> Links to the text, including individual sections, are within the Canvas course.

Class Calendar

The class calendar can be found within the Canvas course. This calendar will be followed as closely as possible. However, some modifications may be necessary during the semester. Your instructor will announce all modifications in class.

Calculators

Calculators are used to demonstrate concepts and facilitate problems. They are not a substitute for learning

the concepts. Basic facts, such as the exact value of $\sin\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$, are as important to know without

any aid, as it is to know $3.55 \times 10 = 35.5$ just by looking at it. Students will graph basic trigonometric functions without the use of a calculator. Questions on exams will test basic facts that must be memorized, as well as how to use a calculator to help answer questions with intensive arithmetic steps or for approximations in applied problems. Calculator use will be restricted on some exams or portions of exams. Departmental test objectives that indicate appropriate use of calculators are posted at the Math department website, http://slccmathdepartment.weebly.com/calculator-policy.html.

A portion of the final exam must be completed without the use of any calculator. Success in future math classes will require these skills and knowledge.

Calculators with a computer algebra system will not be allowed on any quizzes, exams or on the final exam. Prohibited calculators include the TI89, TI92, TI-Nspire, HP 48SX, HP 48GX, as well as other models and brands.

In addition, a cell phone and any other communication device that can connect to the internet may not be used on any quizzes, exams or on the final exam.

Electronic Devices in the Classroom

- No video or audio recording in the classroom is allowed without written authorization from the • instructor.
- Cell phones and other electronic devices should be in silence mode during lectures, tests, and final • exam. Such devices should not be on the desk during lectures, tests, and final exam. In case of emergency, students should exit the classroom before they e-mail, text, or use their cell phones.
- If students choose to use a computer or electronic device to take notes, they may do so without • distracting their classmates. Computer activities that are not related to the class directly should not be done during class time.
- Students who text, talk on the cell phone, or use their computers to do activities not directly related to the class will be asked to leave the classroom.

Projects

Projects will be assigned by your instructor during the semester. These projects are designed to allow the student to examine "real-world" and/or historical applications using trigonometry as a tool. Projects may also be designed to help students learn important mathematical communication skills. Announcements regarding projects and their due dates will be made in class. One of these projects will be a signature assignment that you will be required to post in your e-portfolio.

Homework/Participation/Other

Your instructor will post a list of exercises assigned from the text (homework). These exercises are the required minimum for you to demonstrate the learning objectives of the course and the mastery of the course concepts. You are encouraged to work more exercises than those assigned. Regular practice is essential in learning mathematics. You should be prepared to spend at least two hours studying outside of the class for each hour you spend in class. Many students find that much more time is required in order to perform as well as they desire on exams. Some instructors will require homework to be submitted on line. Details of how and when homework is due will be discussed in class.

Other assignments in this category may include in class quizzes and/or group work. You may be asked to participate in class by working selected homework problems.

Exams

There will be three midterm exams during the semester and a departmental final exam. All examinations will be closed book and will be taken during a scheduled class period. Full credit will be awarded on test problems only if your work can be readily followed and solutions are precise and clearly indicated. The final exam is a standardized departmental exam, which will account for at least 25% of your grade. A PORTION OF THE FINAL EXAM MUST BE COMPLETED WITHOUT THE USE OF A CALCULATOR. It is an SLCC Math Department policy that students attaining a score of less than 60% on the final exam shall receive a grade no higher than "D" for the course.

See the final exam schedule for this semester to verify the time of your exam.

Grading

The following standardized breakdown of weights used in the calculation of the course grade is a Math department policy.

Assignment	Percent of final grade
Exams	45% (15% each)
Homework	15%
Term Project/ePortfolio	10%
Class Activities/Other	50%
Assignments	570
Final Exam	25%

Α	100-93%	С	76-73%
A-	92-90%	C-	72-70%
B+	89-87%	D+	69-67%
В	86-83%	D	66-63%
B-	82-80%	D-	62-60%
C+	79-77%	Е	Below 60%

It is an SLCC Math Department policy that students attaining score of less than 60% on the final exam shall receive a grade no higher than "D" for the course.

In case of human or computer error, we recommend that students keep all homework and exams in a folder until they have received a grade for the course.

Attendance

Class attendance is expected. Regular attendance is essential to achieve satisfactory results. It is the student's responsibility to be aware of all material covered, test dates and assignment due dates.

Student Code of Conduct

All students at SLCC must comply with the Student Code of Conduct:

<u>http://www.slcc.edu/policies/docs/Student_Code_of_Conduct.pdf</u>. In particular, note the Academic Standards on pages 41 and 42 with regards to cheating, misrepresentation, out-of-class work, and plagiarism. In compliance with this document, a student who is academically dishonest will receive an E for this course. Also note the Disorderly Conduct sections on pages 18 and 19.

Drop and Withdrawal Policy

Students who desire to drop or withdraw the class must do so by themselves before the deadlines stated at http://www.slcc.edu/academiccalendar/

Telling the instructor that you are withdrawing from the class is insufficient. You must withdraw from the class through the Registration office. No withdrawals will be approved after that date.

Extra Help

Trigonometry is a challenging course, but the methods for success are simple: read the text, participate in class, and keep up on assignments. Many students find that forming study groups with other students is a very effective way for them to master mathematics. If you need extra help, free tutoring is available in the Learning Centers (phone 801-957-4172) at Redwood TB-213 and LIB 044, South N308 (phone 801-957-3261), and Jordan HTB 102 (phone 801-957-2852). A list of private tutors who may be hired is available in the Learning Centers. The internet is full of resources that could be used for this class. You are encouraged to explore. Individualized and small group tutoring is available (and free) to students through Focused Tutoring. Students need to apply to be matched with a tutor for the semester. Tutoring can be arranged at other campuses depending on tutor and student schedules. Contact Jennifer Fasy for more information (mailto:Jennifer.fasy@slcc.edu; 801-957-4138) or visit: http://www.slcc.edu/focusedtutoring/index.aspx.

Accommodations

Students with medical, psychological, learning or other disabilities desiring accommodations or services under ADA, should contact the Disability Resource Center (DRC). The DRC determines eligibility for and authorizes the provision of these accommodations and services for the college. Please contact the DRC at the Student Center, Suite 244, Redwood Campus, 4600 So. Redwood Rd, 84123. Phone: (801) 957-4659, TTY: 957-4646, Fax: 957- 4947 or by mailto:drc@slcc.edu.

Academic Advising

Academic advising is available to assist with the following:

- Creating an educational plan and/or to set up a class schedule
- Identify the courses needed toward graduation
- Obtain transfer information
- Review academic progress

For more information, visit: <u>http://www.slcc.edu/academicadvising/index.aspx</u>. For specific questions regarding math courses and programs in the School of Science, Math and Engineering contact:

Academic Advisor: Devan Church Phone: 801-957-4858 E-mail: mailto:devan.church@slcc.edu

TITLE IX INFORMATION:

20 U.S.C.A. Section 1681 (a): TITLE IX

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied benefit of, or be subjected to discrimination under any education program or activity receiving federal funds."

Examples of violations (but not limited to):

- Sexual advances, requests for sexual favors and sexually motivated physical conduct
- Overt or subtle pressure for sexual activity
- Sexually offensive verbalization including remarks, "teasing", slurs, and innuendo
- Repeated inappropriate jokes or comments about sex or gender specific traits
- Conduct that is demeaning or derisive and occurs substantially because of one's gender
- Sexual assault
- Sexual Violence
- Gender based disparate treatmen

Violations can occur in any college environment, such as (but not limited to):

- Field Trips
- Student Clubs
- ClassroomsAthletics
- Student ClubsTransportation
- AthleticsOn Campus Events

If you have questions or concerns regarding your rights or responsibilities, or if you would like to file a Title IX complaint please contact:

Students-

Dr. Marlin Clark, Dean of Students, 801-957-4776, STC 276 A (Redwood) **Employees or Community members**-Ken Stonebrook, Title IX & Discrimination Manager, 801-957-5027, AAB 211G (Redwood) **Online Reporting Form-**<u>http://www.slcc.edu/eeo/title-ix/complaint.aspx</u>

Salt Lake Community College has a strong prohibition against RETALIATION! The college does not tolerate acts of retaliation against anyone for engaging in filing a complaint or participating in an investigation.

Finally, read and be aware of the regulations set forth in the SLCC college catalog. Please see your instructor ASAP about any problems that are affecting your work in this class.