INSTRUCTOR INFORMATION

Instructor: Kevin Childers

Office: JWB 121 (JWB is on President's circle, east of Kingsbury Hall)

Office Phone: 801-581-6208 (but e-mail/ Canvas mail better)

Email: childers@math.utah.edu

COMMUNICATION: You may contact the instructor by e-mail or through Canvas-mail. When e-mailing your instructor, please include "1060" in the subject line. All announcements for the course will either be posted in quiz format on the Canvas website (these are graded) or sent by Canvas-mail.

OFFICE HOURS: There will be in-person office hours once each week. No appointment is necessary to come to office hours.

- **Mondays 11:00am - 12:00pm in JWB 121**

I am also happy to schedule office hours by appointment.

ONLINE OFFICE HOURS:

- **Thursdays 1:00pm - 2:00pm**

Participating in one of these is similar to making a Skype call while watching a math video. To attend, go to conferences in Canvas. You need speakers. If you have a microphone, you can ask questions; if not you can type them.

ALTERNATIVE MEETINGS: If the times above are not convenient for you, contact me about setting up a meeting or office hour at an alternative time.

COURSE INFORMATION:

Math 1060, Trigonometry is a 3-credit semester course.

PREREQUISITES:

Prerequisites: **"C" or better in MATH 1050 OR Accuplacer CLM score of 80 or higher.**

*Important Note***: The mathematics department DOES enforce prerequisites for all undergraduate courses. If you were able to register for this class based on your**

enrollment in the prerequisite course last semester and you did not receive the minimum grade in that course to enter this class, then you will be dropped from this class on Friday of the first week of classes. If you are in this situation, it is in your best interest to drop yourself from this class and enroll in a class for which you have the prerequisites before you are forcibly dropped.

WEEKLY WORKLOAD:

This is an online course, but still an intense course. According to the University of Utah, a 3-unit course should have about 3 hours of lecture and 6 hours of outside study/homework time. This means that our online course, will take the average student about 9 hours per week. (In the summer when we complete the semester in 12 weeks instead of 15, students should plan to spend about 11 hours on this course per week!) Some students will be able to get by on less, and some student will need more.

Each week, we cover specific sections. You can choose when you work on the material in the week, keeping your objective and topic goals in mind, but you can't complete the course at your own pace.

IS ONLINE RIGHT FOR YOU?

Before committing to this course, consider whether the online format matches your learning style. To aid in this, please look at: **A: Online?**

TEXT:

PRECALCULUS, 9/e edition, Larson; Chapters 4-6 and Chapter 10. I'd recommend buying/renting/borrowing a physical book, but some students use only the e-book, which you get for free when you purchase WebAssign access. More information about the text, including how to purchase it, can be found here: **A: Textbook**.

ONLINE MATERIALS:

Materials for this course can be found on TWO websites:

- Canvas **https://utah.instructure.com/** Since you are taking this quiz, you have found this site. It is a good idea to save this address, so that you can get to Canvas without going through CIS. Usually once or twice a term, CIS goes down, so the alternative access is useful.
- WebAssign. This is the website that accompanies the textbook. It has the weekly homework assignments, the Personal Study Plan, and additional videos and tutorials.   As soon as the semester officially starts, you can

create a WebAssign account and access our course site. The document
Creating WebAssign Account.pdf 📄 ⧉ contains instructions.

There is a free 14-day trial for WebAssign. After this, you must either pay to use this site, or purchase a textbook which comes with an access code for WebAssign. To learn more about WebAssign, go to **A: WebAssign**.

TECHNOLOGY:

The majority of the course work can be done without a calculator. No calculators will be allowed on exams or the final. Calculators will be useful on some homework assignments and may be allowed on portions of quizzes. If you do not have a scientific or graphing a calculator, there are free calculator applications online.

Course Goal: Improve quantitative reasoning and prepare for future math learning in calculus, linear algebra, and discrete mathematics.

Topics to be covered: Trigonometry, Topics in Analytic Geometry, and the Complex Numbers.

Expected Learning Outcomes:

1. Understand trigonometric function definitions in the context of the right triangles and on the unit circle.
2. Graph basic trigonometric functions and those with basic transformations. Be able to write an equation given a graph. Identify amplitude, periods, phase shifts from graphic and algebraic representations of functions.
3. Solve applications problems using principles in trigonometry.
4. Represent and interpret "real world" contexts situations using radian trigonometric functions.
5. Use trigonometric inverses correctly, understanding the domain/range restrictions.
6. Verify trigonometric identities, using proper logic and use trigonometric identities to evaluate expressions.
7. Solve trigonometric equations.
8. Solve for all measurements in any triangle, using the Pythagorean Theorem, trigonometric functions, the Law of Sines, and Law of Cosines in a variety of contexts and applications.
9. Be able to convert to and from rectangular and trigonometric-form coordinates (polar coordinates).

10. Graph complex numbers in a plane, perform operations on such numbers and use DeMoivre's theorem to find roots and powers of complex numbers.
11. Understand geometry and arithmetic operations with vectors and use vectors in application problems.
12. Use parametric equations in application problems and be able to convert between parametric and non-parametric representation of functions.
13. Understand and explain arithmetic with complex numbers using trigonometry.

HELP:

Contacting me by my e-mail, coming into office hours, or setting up an appointment is the first way to get help. I am happy to talk about individual problems, mathematical concepts, or help you make a study/learning plan. Please seek help early in the term.

If you have a question about a WebAssign problem, you can contact me through WebAssign (good if it's a formatting question) or look/post in the Canvas discussion board (good for content questions/ calculation issues).

You can also get tutoring through the following:

- **Math Tutoring Center (drop-in tutoring and computer lab). This is free to all students. It is in the underground passage between JWB and LCB, Room 155. See http://www.math.utah.edu/ugrad/mathcenter.htmlLinks to an external site. for hours.**
- **Private Tutoring: University Tutoring Services, 330 SSB (they offer inexpensive tutoring). There is also a list of tutors at the Math Department office in JWB 233.**

THE STRUCTURE OF THE COURSE

Each week, we cover specific sections. You can choose when you work on the material in the week (as long as you meet deadlines), but you can't really complete the course at your own pace, as there are specific due dates throughout the semester. There are weekly online homework assignments (which you can start early) on WebAssign, but there are also weekly online content quizzes which you cannot start early on Canvas. These content quizzes open on Canvas on Mondays and close on Tuesday nights--and you have limited time to complete them (more info coming up). In addition, you have the announcement quizzes on Canvas which occur weekly. All materials can be found in the Modules on Canvas, except the weekly homework, which is found at WebAssign. There will be two midterms and a final, which you will take at

the on-campus testing center or with a proctor if you're off-campus (more info coming up).

This is how I would recommend you approach the course to maximize your learning:

Wednesday - Sunday

1. Review your content quiz on Canvas from the previous week and request partial credit if applicable.

2. Look at the weekly announcement (complete Canvas announcement quizzes).

3. Watch the videos, read the textbook, and work on textbook and WebAssign problems.

4. Post in Canvas Discussions about any questions you have from content to homework.

5. After trying to get questions answered via Discussions, email me if needed.

Monday-Tuesday

1. Visit me in in office hours if there are lingering questions.

2. Take Canvas quiz about the week's material. The quiz opens on Monday morning and closes on Tuesday nights; you have 40-50 minutes to finish a content quiz once you open it. More info coming up.

3. Finish online homework on WebAssign (due Tuesday nights).

Here is a breakdown of the components in the course and what they are worth.

- **Reading Announcements on Canvas. Course documents and announcements are given in quiz format and have a short quiz about the content at the end. These "quizzes" begin with "A:..."   Completing these is worth 2% of your grade. Suggested due dates are shown, but these can be completed at any time.**
- **Reading from your text book.**
- **Watching the video lectures. They are available through the modules or in both streamable and downloadable versions at http://www.math.utah.edu/lectures/math1060.htmlLinks to an external site.. (It's good to save this address somewhere else, in case Canvas is down)**

- **Solving Problems: Working through problems helps you understand and master the material. In WebAssign, there are three types of assignments. For each section, there are:**
    - **Practice Assignments: These assignments are for you to get familiar with the concepts. They have many help features; they are not graded, but you must earn a score of 80% or better to begin the corresponding graded assignment. You can work on them at any time in the semester.**
    - **Graded Assignments (worth 12.5%): These assignment are a transition between the practice assignments and quizzes and exams and have fewer help features/allowed submission than the practice assignments. These are due on Tuesday nights at 11:00 pm or a few minutes later. There is a 5% bonus on problems which you complete by the Sunday before the due date to encourage you to get started early. The lowest three homework scores will be dropped at the end of the semester.**
    - **Personal Study Plan "PSP" (worth 3%): These are a set of review quizzes with questions randomly selected from the chapter covered. You can take them at any time, though they may be particularly useful when first learning the material, or when studying for exams. Only Chapter, not section, quizzes are graded. You can retake these quizzes as many times as you want before the end of the semester. The most recent, not the best, is the score that is recorded and a score of 80% on a PSP quiz is converted to a score of 100% in the Canvas grades. All other scores are transferred proportionally. This is due at the end of the semester. To find out more, read A: PSP.**

For additional problems, use your textbook. There is a link in the Canvas modules to solutions of the odd textbook problems.

- **Feedback Quizzes. These are given weekly on Canvas. The time limit varies between 40 minutes and a hour. Quizzes will open on Monday morning at 12:01 am and are due by 11:59 pm on Tuesday. Any change to this will be stated in the weekly announcements. Quizzes are worth 12.5% of the grade; the two lowest quiz scores will be dropped in the grade calculation at the end of the semester.**
- **When you finish a quiz, all you will see is your score. On Wednesday mornings, the quiz will be unlocked so that you can see your answers and the Canvas key answers. Solutions will also be posted. Between**

Wednesday and Saturday, you should review your quiz and request retroactive partial credit, if appropriate. Find out more information about quizzes here: **A: Quizzes**.

- **Exams:** There will be two midterm exams and a comprehensive final exam at the end of the semester. Each exam is worth 20% of your grade and the final is 30%. You must schedule your exams and final through the "Schedule Exams" link on Canvas. Exams will be administered at the Uonline testing center (in the Marriott Library) and at the satellite testing center in Sandy, or if you are out of area, with a proctor that you set up and register with Uonline. There will be practice material provided prior to each exam. You are not allowed to use notes, a calculator, textbook, or phones during the exam. More information about exams, including how to set up a proctor, can be found here **A: Exams**.

- **Extra Credit:** Extra credit, worth up to 3% or more of your course grade, can be earned for participating in online discussions (by asking or answering questions with significant mathematical content), or by spotting errors in course materials. See **A: Extra Credit** for details.

DATES:

Weekly Due Dates:

- **WebAssign HW due each Tuesday at 11:00pm, or a few minutes later**
- **Online Quiz each Monday-Tuesday; due Tuesday at 11:59pm, including exam weeks**

Personal Study Plan

- **Due by Wed 4/26**

Exams (Schedule at a time between the dates below):

- **Exam 1: Mon 9/25 – Sat 9/30**
- **Exam 2: Mon 11/6 – Sat 11/11**
- **Alternative Final: Sat 12/9 - Tue 12/12**

OR

- **Common Final: Thurs 12/14 1:00 - 3:00 PM on the main campus, location TBA**
- **Other dates:**
  - **Drop date: Fri 9/1**
  - **Withdraw/audit date: Fri 10/20**

GRADING: Grades are calculated as follows:

- **Announcement Quizzes (2%),**
- **Content Quizzes (12.5%),**
- **WebAssign Homework Assignments (12.5%),**
- **PSP (3%)**
- **Midterms (40%)**
- **and Final (30%).**

The lowest 3 WebAssign score and the lowest 2 quiz scores will be dropped at the end of the term.

A score of 73% is required for a C, which is the prerequisite to take the next class. You should monitor your course grade throughout the semester by looking at "Grades" in Canvas. At the end of the semester, the "current grade", not the "final grade" is used to determine the course letter grade.

The grading scale is:

[0,50) E

[50,60) D-

[60-66) D

[67,70) D+

[70-73) C-

[73-77) C

[77,80) C+

[80,83) B-

[83-87) B

[87,90) B+

[90,93) A-

[93,∞) A

EARLY POLICY

- **You can start WebAssign homework early at any time.**
- **You can start content quizzes up to a week early upon well-planned request. Please request this at least 48 hours before you would like to take the quiz.**
- **You can also take exams up to a week early, upon well-planned request. Please let me know at least 7 days before you wish to take the exam.**
- **The final exam is expected to be taken on-campus in a classroom yet-to-be-announced on April 27 from 1:00-3:00pm. However, you are allowed to schedule the final exam anytime between April 25-27 either at the Uonline testing center or with a proctor if you are off-campus. More info as the final exam approaches.**

LATE POLICY:

Unexpected events arise – you get sick, called into work, have computer or Internet problems, get back late from a trip, etc. In order to provide you with a buffer and have a policy that is manageable to implement for a large class, the two lowest HW and quiz scores will be dropped (in the last week of the term). If you know you will have a time conflict, busy week, be away, etc., please contact me ahead of time. We will make arrangements for you to complete the assignment, quiz, or exam early.

Except for Quizzes 1 and 2, there are no late or make-up quizzes. If you have technical problems with your Quizzes, you need to contact me at least one day BEFORE their deadlines are up so that they can be reset. (That is why it is advised to work on assignments early.) Also, contact the Uonline support team (801-581-6112) to resolve the problem.

Practice WebAssign assignments are open for the entire term. Old graded WebAssign assignments will be reopened if you come to office hours and request it. If you are unable to come to office hours, it will also be reopened if you have completed the current assignments AND the corresponding practice assignments (scores of 80% or higher) by the Monday night before the current assignments are due. Please send a request by e-mail or Canvas mail by Monday.

Since you have a 6-day window in which to take your midterm exams (but they must be scheduled in advance), only for severely extenuating circumstances would a midterm ever be allowed to be taken late (so don't count on it).

If there is a BIG, UNANTICIPATED circumstance beyond your control that prevents you from taking a quiz or exam, or completing your homework, please contact me in a

timely manner <u>with documentation</u> by a third party (for example, a Dr.'s note) and we will discuss options.

Center for Disability & Access

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

STUDENT RESPONSIBILITIES:

All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php