MATH 1060 SYLLABUS – TRIGONOMETRY – SUMMER 2018

COURSE: Math 1060-070 is a 3-hour math class. You can expect to spend **at least two to three hours** on homework per one hour of class time. Math 1060-070 meets Tuesday and Thursday evenings from 6:00 – 8:45 pm at the Sandy Campus.

PREREQUISITE: Completed Math 1050 or equivalent with a C or better, or have a current Math ACT score of 24 higher, or an Accuplacer score of 80 or higher.

FACULTY: Sarah Jean Hoggan, BS (mathematics), MEd (Phi Kappa Phi)
CONTACT ME: hoggan@math.utah.edu, or email me in Canvas, or by appointment after class. Do NOT email me inside of WebAssign.

COURSE DESCRIPTION: This course covers trigonometric functions, their inverses, identities, solving equations with applications, an introduction to vectors, complex numbers, polar graphs and conics.

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

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 the 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.

14. Write an equation for a conic given a graph of the conic; given an equation of a conic, recognize the conic and be able to graph it.

TEACHING and LEARNING METHODS: Lecture, memorizing Fact Sheet, homework, PowerPoint slides, quizzes and Departmental Videos. The math department provides 'Lectures' on the various topics at http://www.math.utah.edu/lectures/math1060.html in case a class is missed or more in-depth study would be helpful.

HOMEWORK: Assigned homework will be done online through WebAssign. Plan time in your schedule to complete the homework on a daily basis. Homework is due the following class period by 11:59 pm. Homework is a substantial part of your grade for the course (15%); it is to your benefit to make success on the assignments a priority. Partial credit is better than no credit! After section 4.5 is covered, you may want to check out the website http://www.math.utah.edu/~palais/cossin.html.

QUIZZES: There will be a total of 5 quizzes plus an extra credit quiz. You must be in attendance to take the quiz. The lowest quiz score will be dropped.

EVALUATION: Two midterms and a comprehensive final will be given. You will be graded on four of the five quizzes. A missed quiz will receive a zero. **No make-up exams will be given!** Any special arrangements must be made in **ADVANCE.** Calculators will NOT be allowed on midterm exams or the final exam. No exam scores will be dropped.

GRADING: The homework is worth 15%. Quizzes are worth 15%. The two Midterm exams are worth 20% each. The Final is worth 30%. All students must take the Final. Grades will be given according to the following schedule:

PERCENT	GRADE	PERCENT	GRADE
92-100	A	68-71	C
88-91	A-	64-67	C-
84-87	B+	60-63	D+
80-83	B	56-59	D
76-79	B-	52-55	D-
72-75	C+	0-51	E

TEXT: ***PRECALCULUS,*** 9th Edition, 2013, Larson, ISBN: 9781133949015. The University of Utah has negotiated special pricing for the text and WebAssign;

- For $75 you may purchase the online version of the text with Enhanced WebAssign. This price

covers both 1050 and 1060.

- OPTION: if you would like, you may also purchase a loose-leaf version of the text for $40.

The text may be purchased at: http://www.cengagebrain.com/course/2609573

CALCULATORS: A scientific' calculator is sufficient. It will helpful when doing homework. **Calculators and cell phones will NOT be allowed on tests!**

COURSE OUTLINE: The homework and test schedule are on a separate page.

Chapter 4 : Sec. All
Chapter 5: Sec. 3-5
Chapter 6 : Sec. All
Chapter 10 : Sec. 1-4,6-8

TUTORING: Free Math Lab in the basement of the Math Building (JWB). Open M-H 8 am – 8 pm and Friday 8 am – 6 pm. For paid tutoring ($7/hr) visit the Tutoring Center in Rm. 330 SSB, 801-581-5153. E-Tutoring is available; the link can be found on the left menu inside Canvas.

ATTENDANCE: Like any college course, attendance is not "mandatory." However, concepts will be thoroughly explained and reviewed in class, thus it is to your absolute benefit to attend all classes. Students who regularly attend score on average 30% higher on exams than those who do not.

ADA: "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 Services, 162 Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations."

FACULTY RESPONSIBILITES: "All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students 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** (a 0 will be given), plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content."

CLASS ETIQUITTE: Dress - The educational process is facilitated by professional behavior on the part of all; therefore, students are encouraged to dress appropriately for class. **TURN CELL PHONES OFF/VIBRATE BEFORE COMING CLASS! DO NOT** leave during class to make or answer a phone call. Don't talk while I am lecturing or students are asking questions. DO NOT come to class late or leave early. It is not only inconsiderate, but also quite disruptive to other students.