

- Instructor Information:** Gigi Drent
Office: Faculty 1, #115. Phone: (808)245-8289. Email: gdrent@hawaii.edu
- Course Number/Credits:** MATH 140 Pre-Calculus: Trigonometry and Analytic Geometry (3 cr.)
- Class Meets:** TR 10:50 – 12:05, NSCI 110, 3 hours per week
- Course Description:** The second part of the pre-calculus sequence, this course includes a study of trigonometry, analytic geometry and applications.
- Prerequisite:** “C” or higher in MATH 135.
- Learning Outcomes:** Upon successful completion of the course the student should be able to
1. apply mathematical reasoning to the explanation of given mathematical problems,
 2. use appropriate symbolic techniques in the context of problem solving,
 3. recognize, quantify and extend given patterns,
 4. generate proofs using mathematical and logical reasoning techniques, and
 5. demonstrate the relevance of given mathematical concepts to real-life problems.
- Required Text & Materials:**
1. Algebra and Trigonometry, 8th Ed., by Michael Sullivan.
 2. 1.5-inch binder
 3. Divider
 4. Pencils & eraser
 5. Ruler
 6. Graphing Calculator (TI-83 or TI-89)
 7. A 3-ring pouch to carry all of the loose items.
 8. Graph paper
 9. Lined paper
- Instruction:** You will be assigned into different groups throughout the semester to go over homework, in-class practice, and to discuss challenging problems. You are expected to participate during class lectures/discussions. A good sign of understanding is to be able to explain the concepts to someone. You are expected to do that throughout the semester. Remember that you are in charge of your own learning. The instructor can help greatly, but the ATTITUDE, the ENERGY, the AMBITION, the DETERMINATION, and the QUESTIONS must come from you!
- Assessment:** Grading is based on Homework (10%), Quizzes (5%), three Midterm Exams (25% EACH), and a comprehensive Final Exam (10%). There will be absolutely **no make-up** work unless you have made arrangement with the instructor in advance or have a serious illness confirmed by your doctor.

Grading Scale:	90 – 100%	A
	80 – 89.99%	B
	70 – 79.99%	C
	60 – 69.99%	D
	Below 60%	F

Remember that the final date for withdrawal from the course is January 30th, 2012. A **withdrawal ("W") grade** after April 2nd, 2012, requires the instructor's signature and is given only in cases of extreme or unusual circumstances: 1) a certified medical reason or 2) a death in the immediate family.

An **incomplete ("I") grade** will be given only to students who are achieving passing grades and are very close to completing the course. The request form needs to be presented prior to the last day of instruction. In addition, the student must have a very good reason for not being able to complete all the work on time, such as those listed under withdrawal policy.

As members of the academic community students are expected to promote an atmosphere of honesty and learning, respect for others, and appropriate classroom behavior to maintain the academic integrity essential to the educational process. "**Academic dishonesty** cannot be condoned by the University. Such dishonesty includes cheating and plagiarism which violate the Student Conduct Code and may result in expulsion from the University." (Kauai Community College 2011-2012 Catalog or Student Handbook and Planner)

Students with Disability: If you have a disability and have not voluntarily disclosed the nature of your disability and the support that you need, you are invited to contact the Student Services Office, 245-8314 or 245-8212 as soon as possible. This is to ensure that such accommodations are implemented in a timely fashion.

Study Habits: You are expected to read the book before you came class. You are expected to complete your homework before the next class meeting. For each in-class hour, you are expected to spend at least two hours outside of class studying. If you have any question or if you are behind, let me know right away. Don't wait! You can get help from me during class, during my office hours or by appointment. You can also get help from a tutor at the **Learning Resource Center**.

Attendance: Attendance is essential to the success of this course. In each class period, new concepts are presented which build upon the concepts previously learned. These concepts, in turn, lay the foundation for what will be presented later. Your absence is not an excuse for your unawareness of the progress and activities of the class.

TENTATIVE SCHEDULE:

Date	L#	Lecture Topic	Written Assignments to Turn In
Jan 10	1	Angles	Section 7.1 # 38, 54, 72-86even, 99, 118, 121, 122 Section 7.2 #16, 24,52,54,58,65,67
Jan 12	2	Computing Trig values	Section 7.3 #18-28even, 56,70, 85, 87, 88, 92
Jan 17	3	Computing Trig values (Cont.)	Section 7.4 #12, 66,72, 74,76,92,96,98,108,112,114 Section 7.5 #10,20,38-60even,64,66,70,73,74,84 Section 7.6 #50-68even,82,86,88,92
Jan 19	4	Graphing sine, cos, tan QUIZ 1	QUIZ 1
Jan 24	5	Graphing sec, csc, cot	Section 7.7 #32-40all,42,46,50,51 Section 7.8 #4-26even,28,32
Jan 26	6	Graphing trig functions with transformations	Chapter 7 Test # 1-31all
Jan 31	7	Review	REVIEW SHEET
Feb 02	E1	EXAM # 1	EXAM # 1
Feb 07	8	Inverse Trig functions	Section 8.1 #38-66even, 76,78,79
Feb 09	9	Basic Identities (pyth, even/odd, cofunction, defs)	Section 8.2 #24-44 even,58,60,66,72,74,76,85
Feb 14	10	Intermediate Identities (sum/diff, half/double)	Section 8.4 #40-88even Section 8.5 #12,20,24,28,32,36,40,46,60,64,68,70,80,94,104
Feb 16	11	Advanced Identities (sum→product, product→sum) QUIZ # 2	Section 8.6 #14-42even,52-66even,70-78even,94,106 QUIZ # 2
Feb 21	12	Solving Trig Equations	Section 8.3 #32,34,58-80even,94,96,104
Feb 23	13	Solving Trig Equations (Cont.)	Section 8.7 #26-46even, Chapter 8 Test # 1 – 29all
Feb 28	14	Review	REVIEW SHEET
Mar 01	E2	EXAM # 2	EXAM # 2
Mar 06	15	Right Triangle Applications	Section 9.1 # Section 9.2 # Section 9.3 #
Mar 08	16	Law of sines and cosines	
Mar 13	17	Polar Coordinates	Section 10.1 and A8 #
Mar 15	18	Graphing in Polar Coordinates QUIZ # 3	Section 10.2 # QUIZ # 3
Mar 20	19	Vector and dot product	Section 10.4 #
Mar 23	20	Applications of vectors TAKE-HOME EXAM	Section 10.5 # TAKE-HOME EXAM
Mar 27 Mar 29	H	SPRING BREAK	SPRING BREAK
Apr 03	21	Sequences	Section 13.1 # Section 13.2 #
Apr 05	22	Series	Section 13.3 #
Apr 10	23	Mathematical Induction	Section 13.5 #
Apr 12	24	Systems of Equations and Partial Fraction Decomposition	Section 12.2 and A7 #
Apr 17	25	Systems of Equations and Partial Fraction Decomposition (Cont.)	Section 12.5 #
Apr 19	26	Review	
Apr 24	E3	EXAM # 3	EXAM # 3
Apr 26	28	Student learning Outcome Assessment	
May 01	28	Review For Final Exam. Last Day to Turn in Work!	
May 03	FE	FINAL EXAM FROM 10:00AM – 12 NOON	