

Course Syllabus (Mode: F2F / Credits: 3 / Effective Date: Spring 2018)

Math 140 — Precalculus: Trigonometry and Analytic Geometry

Instructor: *Navtej (Johnny) Singh*

E-Mail: navtej@hawaii.edu << This is the best way to get in touch. Provide name & class info>>

Office Location: *Manaopono 110*

Office Hours: *T TH 10am – 12:30pm & by appointment*

Office Telephone #: *(808) 236 – 9278 << Use this during office hours for elaborate help>>*

CRN	Class Meeting	Day(s)	Classroom	WebAssign Class ID
62073	8:30am – 9:45am	Tu & Th	Manaopono 114	hilo.hawaii 0751 1099

Windward Community College Mission Statement

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

Catalog Description

Catalog Description: Studies trigonometric functions, analytic geometry, polar coordinates, vectors, and related topics. This course is the second part of the precalculus sequence. Pre-Requisite(s): Grade of "C" or better in MATH 135 or equivalent, satisfactory math placement test score, or consent of instructor.

Course Level Student Learning Outcomes

Upon completion of the course, the student will be able to:

- Employ algebraic and geometric representations of trigonometric functions and other relations.
 - Use appropriate techniques to analyze and solve application problems requiring the use of trigonometry or analytical geometry.
 - Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form Use algebraic techniques to analyze and solve applied problems
- All SLOs assessments are embedded in class activities, homework, quizzes, or exams.

Learning Resources and Materials

Required Textbook for this course is "Precalculus: Mathematics for Calculus" 7th edition by Stewart, Redlin & Watson. We will be using the WebAssign tools for homework, so make sure your textbook come with a valid access code. Students are also required to purchase a scientific calculator for this course. It is highly recommend that students have a reliable computer with access to broadband internet. While all course material (including homework) is available at www.WebAssign.com, instructor may utilize <http://laulima.hawaii.edu> to post other handouts and grades.

Student's Responsibilities

Responsible students take ownership of their actions by exhibiting the following behaviors in this class:

- Take an active role in learning and seek immediate help when needed.
- Maintain a positive and inquiry attitude towards learning.
- Set aside adequate time for doing assignments and not waiting till the last minute to do assigned work.
- Complete assignments by the designated dates with attention to quality of work.
- Stay current and don't procrastinate since new concepts are built on previously learned material.
- Actively communicate with instructor and reach out for help immediately.

Foundations (Symbolic) Hallmarks

Math 140 fulfills 3 credits of the General Education requirements (Foundations: Symbolic) for both an A.A. degree at WCC and a Bachelor's degree at UH Manoa. Consequently, it meets the following hallmarks:

1. Students will be exposed to the beauty, power, clarity and precision of formal systems.
2. Instructors will help students understand the concept of proof as a chain of inferences.
3. Instructors will teach students how to apply formal rules or algorithms.
4. Students will be required to use appropriate symbolic techniques in the context of problem solving, and in the presentation and critical evaluation of evidence.
5. The course will not focus solely on computational skills.
6. Instructors will build a bridge from theory to practice and show students how to traverse this bridge.

Tasks and Grading

Point Distribution		
Homework	24 assignments @ 10 points each	240 pts
Portfolio	Written part of homework (see detail below)	060 pts
Exams	3 unit exams @ 100 points each	300 pts
Final Exam	Combination of Everything Learned in Class	200 pts
Total Points		800 pts

Letter grades will be assigned based on the following standard scale
A ⇒ 90% ↑ ; B ⇒ 80% ↑ ; C ⇒ 70% ↑ ; D ⇒ 60% ↑ ; F ⇒ below 60%;

Other grade options include N, CR, NR, I, and W. See the following information for detail:

"The 'N' grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning objectives and is not yet prepared to succeed at the next level, or the student has made consistent progress in the class but is unable to complete the class due to extenuating circumstances, such as major health, personal or family emergencies." If you would like to request for N grade in this class, you must provide a formal letter of request to me no later than the time of final examination addressing how you have met the criteria for N grade. Then I will make a decision on whether or not you qualify for the N grade.

The CR/NC grades require written instructor consent. Overall score of 70% or higher is consider CR and below 70% is NC. Students must apply for CR/NC grading option at the Admissions Office by the posted deadline. If a student does not apply for CR/NC grading option at the Admissions Office by the required deadline and if s/he does not withdraw, a letter grade (A, B, C, D, F, N) will be assigned for the course.

The W grade is given only when the student officially withdraws from the course by the posted deadline.

The "I" grade is a temporary grade given at the instructor's option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. The "I" grade is given by student request and must be approved by the instructor.

Basic Rubrics for Grading Multistep and Word Problems	
Full Credit	<ul style="list-style-type: none"> - Shows complete understanding of a problem's mathematical concepts and procedures - Performs algorithms correctly using appropriate notation and precise mathematical language - Gives an elaborate and effective explanation of the solution process in an organized way
Partial Credit	<ul style="list-style-type: none"> - Shows near understanding of the problem's mathematical concepts and procedures - Using appropriate notation, performs algorithms completely that may contain minor errors. - Identifies most relevant information and shows a general understanding - selects an appropriate strategy for solving the problem - Shows effective explanation and some evidence of a systematic solution process
Very Little Credit	<ul style="list-style-type: none"> - Shows some understanding of a problem's mathematical concepts and procedures - Performs algorithms that may contain major computational errors - Identifies some relevant information and shows limited understanding - Shows little evidence of a solution process or use of appropriate mathematical language - Gives some explanation of the solution process but may be vague or difficult to interpret
No Credit	<ul style="list-style-type: none"> - Shows no understanding of a problem's mathematical concepts and procedures - Identifies no relevant information, algorithmic pattern, or evidence of a solution process - Fail to explain significant parts of the problem or omit it altogether

Homework and Portfolio

All homework assignments are available at www.WebAssign.com. To access the homework, you need to register at www.WebAssign.com using the class key **hilo.hawaii 0751 1099**. You will be asked to enter an access code (should come with your textbook) or purchase one during the registration process. Note that even though number of problems in each homework may vary, all homework assignments are worth equal credit. Your online homework will be typically due the next class period after completing lesson. Since all homework assignments are computer based and only require final answer, students must show appropriate step-by-step work leading to correct solution on separate paper that will be part of your portfolio, to be turn in on exam day.

Exams

There will be three unit exams and one comprehensive final in this class. For exam dates and section covered, refer to the schedule page of the syllabus. Note that all tests as well as the Final Exams must be taken in supervised environment without any references unless otherwise stipulated by the Instructor. Students may be required to go to The Testing Center (http://windward.hawaii.edu/testing_center).

Class Participation and Attendance

Students are expected to attend the class regularly and be present in the class for the entire duration. A student should be consistently working and progressing on assigned tasks during the class. Proof is required for an excused absence. To create a comfortable learning environment in the classroom, all students are expected to come to class on time with positive attitude and respect everyone present in the classroom. As a courtesy to your classmates, please turn off your cell phones and do not distract them from doing their work. If you have trouble understanding any concept or problem, ask for help by raising your hand. If you are absent from the class, it is your responsibility to check on announcements made while you were absent. To encourage class participation, instructor may offer various extra credit opportunities throughout the semester. If you stop attending this class for any reason, it is your responsibility to drop it.

Math Help Outside of Class

In addition to visiting my office hours, I encourage you utilize the Math Lab located in the library. You do not have to make an appointment to use this resource. There is also free online 24 hours live tutoring available through Brainfuse via myuh.hawaii.edu (find Brainfuse link under tools or visit <http://windward.hawaii.edu/brainfuse> for further instruction). You can also access live local tutors online at <http://manoa.hawaii.edu/ola/>. I also encourage you to form a small study group with students from your class. There are many useful websites such as <https://www.khanacademy.org> devoted to helping students in Math. I would be happy to assist you in locating the sites that fit your need.

Academic Dishonesty

Plagiarism and use of another's work without proper acknowledgment is not permitted. A student caught cheating, may receive a failing grade for the course. All students are required to follow the Student Conduct Policies described at http://www.wcc.hawaii.edu/Policies/5_3_Student_Conduct.php.

Remarks

Please check your WCC e-mail account frequently for important announcements. Note that this syllabus is subject to change in extenuating circumstances. When communicating via e-mail or leaving voice message for me, please include your name, course and contact information so that I can easily identify you and get back to you in a timely manner. Make up work will only be allowed upon showing proof of excused absence. For additional academic information, refer to WCC website www.windward.hawaii.edu.

Disabilities Accommodation

If you have a physical sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at (808) 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Akoakoa 213 for more information.

Final Thought

No one is born with math brain. Everyone can develop the skills necessary to learn Mathematics. Mathematics helps create multiple connections in your brain, which lead to smart brain. Here is short video that I recommend you watch before starting this course: <https://youtu.be/bxrPy1fjVU4>.

Tentative Math 140 Schedule for Spring 2018 Semester

Week	Dates	Tuesdays	Thursdays
1	1/9 & 1/11	Orientation and Section 5.1	5.2
2*	1/16 & 1/18	5.3	5.4
3	1/23 & 1/25	5.5	6.1
4^	1/30 & 2/1	6.2	6.3
5	2/6 & 2/8	Review for Exam 1	Exam 1
6	2/13 & 2/15	6.4	6.5
7*	2/20 & 2/22	6.6	7.1
8	2/27 & 3/1	7.2	7.3
9	3/6 & 3/8	7.4	7.5
10	3/13 & 3/15	Review for Exam 2	Exam 2
11	3/20 & 3/22	8.1	8.2
12*	3/27 & 3/29	Spring Break	Spring Break
13	4/3 & 4/5	8.4	9.1
14*	4/10 & 4/12	11.1 & 11.2	11.3 & 11.4
15	4/17 & 4/19	Review for Exam 3	Exam 3
16	5/1 & 5/3	Review for Final	Non Instructional Day
17**	5/7 - 5/11	Final Exam Date, Location, and Time to be Announced Later in Class	

^Drop Dates: February 1, 2018 – Last day to withdraw without a W grade

*Holidays: January 15, 2018 – Martin Luther King Jr. Day

February 19, 2018 – Presidents Day

March 2, 2018 - Excellence in Education Day