MATH 140, TRIGONOMETRY and ANALYTICAL GEOMETRY  
3 credits CRN 64412  
MONDAY, WEDNESDAY 5:30 - 6:45 PM

INSTRUCTOR: Kimlynne Slagel  
OFFICE: Mana`opono 110A  
OFFICE HOURS: Monday, Wednesday 4:45-5:25 PM (held in Palanakila 212) Other Hours by Appointment  
TELEPHONE: 236-9281 (office) 221-7507 (cell)  
EMAIL: kimlynne@hawaii.edu  
EFFECTIVE DATE: Fall 2018

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 the Ko`olau region of O`ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

Study of the elements of trigonometry and analytic geometry including trigonometric functions and their inverses, relations, graphs, and applications; conic sections; vector applications; Cartesian and polar coordinate systems; parametric equations and applications; and related topics. (3 hrs. lecture)

PREREQUISITES: Grade of "C" or better in Math 135 or equivalent, satisfactory placement test score, or consent of instructor.

WCC: FS

Suggested Basic Skills

Good study skills and habits; Competency with Pre-Calculus-Elementary Functions (Math 135).

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

1. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form and in the presentation of evidence.
2. Traverse the bridge from theory to practice by applying concepts and properties of trigonometry, vectors, and complex numbers to solve problems.

3. Analyze and graph trigonometric functions, inverse trigonometric functions, conics, polar equations, and parametric equations.

5. Apply formal rules or algorithms by demonstrating proficiency in performing operations with trigonometric expressions and equations.

6. Use appropriate symbolic techniques to analyze and solve application problems requiring the use of trigonometry and analytical geometry and in the critical evaluation of evidence.

7. Understand the concept of proof as a chain of inferences by demonstrating proficiency at proving trigonometric identities and other types of proofs.

These student learning outcomes will be assessed via course activities (homework, in-class work, and/or additional assignments) and via tests or quizzes.

**FOUNDATIONS 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 of the symbolic reasoning requirement.

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.

**Course Goals**

1. To provide the student with mathematical skills and with an understanding of analytic geometry and trigonometric concepts which are prerequisite for further studies in mathematics, business and/or the sciences.
2. To demonstrate the relevance and applicability of analytic geometry and trigonometry to "real world" problems.

3. To nurture the student's problem-solving skills.

4. To promote awareness and appreciation for the role of mathematics in contemporary society.

5. To cultivate and enhance the student’s mathematical reasoning ability.

Responsibilities of Students

Success in this course will be enhanced by:

1. A positive, inquiring attitude toward mathematics;

2. Setting aside adequate time for studying, working on problems, and careful cogitation of the material;

3. Reading the text carefully and making use of other learning materials whenever necessary;

4. Seeking assistance from the instructor and the Math Lab whenever necessary;

5. Regularly attending class and, notifying the instructor of an absence and responsibly obtaining and completing assignments by the designated date. If you cannot attend class on an EXAM day, you MUST notify the instructor in ADVANCED and schedule a MAKE up date agreeable to the instructor. Note: the make up exam may differ from the exam taken by the rest of class on the scheduled exam date.

6. Checking their UH email regularly for important announcements. Students are also expected to check the Math 140 course homepage at the MyUH website for important resources for the course.

WebAssign

WebAssign is an online tutorial that you have the OPTION of using. A new textbook purchased from the WCC bookstore is packaged with a WebAssign access code. The problem sets you choose to complete do NOT add or subtract from your semester grade. I will NOT include these points in your final grading. It is strictly used as an INDIVIDUAL STUDY GUIDE.

The WebAssign access code also provides an e-book so if you prefer, you may purchase just the WebAssign access code online for approximately $95.

Disruptive Behavior

Windward Community College is an equal opportunity, affirmative action institution.
**Disruptive Behavior** leads to a loss of learning time. Examples are activated beepers and cell phones, texting messages, making offensive remarks, packing books before class is over, making noise, leaving class early, coming to class late, sleeping in class, prolonged chattering, reading other materials not relevant to this class, etc. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting, and will be marked absent.

**Remember that class time is learning time. Also, be respectful of others and their learning time.**

**ASSESSMENT TASKS AND GRADING**

Grades for this course are based on the following course tasks:

- **Midterms (3)** 65% of total points possible
- **Final Exam** 15% of total points possible
- **Course Activities** 20% of total points possible

**There are no make-up opportunities for missed in-class activities.** Late homework assignments are subjected to a 20% penalty. Late homework assignments are accepted up until the day of the Midterm date that covers the material. There may also be a few opportunities to earn extra credit points for the course activities portion of your grade.

Each letter grade for the course will be assigned according to the level of achievement as provided in the table below:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>B</td>
<td>80% - 89% of the cumulative points possible</td>
</tr>
<tr>
<td>C</td>
<td>70% - 79% of the cumulative points possible</td>
</tr>
<tr>
<td>D</td>
<td>60% - 69% of the cumulative points possible</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60% of the cumulative points possible</td>
</tr>
<tr>
<td>Cr</td>
<td>70% - 100% of the cumulative points possible</td>
</tr>
<tr>
<td>NC</td>
<td>Less than 70% of the cumulative points possible</td>
</tr>
<tr>
<td>W</td>
<td>Official Withdrawal</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete - given when a student has failed to complete a SMALL part of the course due to circumstances beyond his/her control.</td>
</tr>
</tbody>
</table>

**Note:** Cr/NC grades require written instructor consent. Students must apply for Cr/NC grading option at the Admissions Office by the 10th week of classes (for summer: by the 5th week of classes). 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) will be assigned for the course.

**Note:** W grade is given only when the student officially withdraws from the course at the Admissions Office by the 10th week of classes (for summer: by the 5th week of classes).
Learning Resources and Materials


Required Technology Tool: Any TI-84 family graphing calculator, or TI-Nspire CX. Access to the internet via laptop, tablet or smartphone.

Optional Online tutorial: WebAssign http://www.webassign.net


MATH LAB: La’akea 226 – free drop-in tutorial assistance

DISABILITIES ACCOMMODATIONS
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 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Ākoakoa 213 for more information.

TITLE IX
Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, Windward CC has resources to support you. To speak with someone confidentially, contact Karla Silva-Park, Mental Health Counselor, at 808-235-7468 or karlas@hawaii.edu or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235-7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator at 808-235-7393 or wcctix@hawaii.edu.

ACADEMIC INTEGRITY

All exams are closed books and notes and must be done by your individual effort. You may not consult with any classmates while taking quizzes or exams. You are not allowed to tell a friend the type of questions on the quiz or exam, the answers, or help a classmate in any way (e.g. by explaining how to solve the problem). This would fall under the guidelines of academic integrity and any evidence of cheating will result in a score of 0 for all parties involved. Also keep in mind that we are assessing your knowledge and understanding of the concepts and strategies – attempting to find the
answers online or through other sources is not in the spirit of academic honesty. An “F” will be assigned to students involved in cheating and will be reported to the Dean.

Graded assignments that apply to the course activities portion of your grade may be discussed with your classmates and you may seek guidance from the instructor, the Math Lab tutors, online tutors, or the Trio tutors (if you are a Trio client), however, the write up of the solution for each problem must be done on your individual effort unless otherwise specified by the instructor. Graded assignments are not group assignments where all members of the group write the same responses for each problem. Any evidence of plagiarism will result in a score of 0 for all parties involved. If plagiarism persists, then an “F” will be assigned to the students involved in plagiarism and will be reported to the Dean.

All students are required to follow the Student Conduct Code described at http://www.hawaii.edu/policy/?action=viewPolicy&&policySection=ep&policyChapter=7&policyNumber=208.

Students can upload papers to http://www.TurnItIn.com to have papers checked for authenticity, highlighting where the paper potentially fails to appropriately reference sources.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s):

Students will receive a failing grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

**ALTERNATE CONTACT INFORMATION**

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alakai 121  
Phone: 808-235-7422  
Email: wccaa@hawaii.edu