MATH 135 – PRECALCULUS: ELEMENTARY FUNCTIONS (3 Credits)

INSTRUCTOR: Kimlynne Slagel
OFFICE: Manoa‘opono 110A
OFFICE HOURS: Tuesday 5:00-5:30 PM
Thursday 6:45-7:15 PM
And by appointment
TELEPHONE: (808) 842-8924 or (808) 221-7507 (text)
EMAIL: kimlynne@hawaii.edu
EFFECTIVE DATE: Spring 2015

<table>
<thead>
<tr>
<th>CRN</th>
<th>Days</th>
<th>Time</th>
<th>Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>63416</td>
<td>Tues/Thurs</td>
<td>5:30-6:45 PM</td>
<td>Mana‘opono 113</td>
</tr>
</tbody>
</table>

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

An analysis of elementary functions. A study of polynomial, rational, exponential, and logarithmic functions. Topics also include graphing techniques, transformations, applications, and related topics. Emphasis is placed on topics that will prove useful to students planning to take Calculus and also to those who are interested in pursuing math related careers. (3 hrs lecture)

PREREQUISITES: Grade of "C" or better in Math 103 or equivalent, or satisfactory placement test score, or consent of instructor.

STUDENT LEARNING OUTCOMES

1. Demonstrate proficiency in writing math expressions into different forms and finding the solutions to an equation and inequality using complex numbers where appropriate, by applying formal rules or algorithms.

2. Use appropriate symbolic techniques (such as algebraic techniques) to analyze and solve applied problems, and in the critical evaluation of evidence.

3. Interpret equations geometrically and use geometrical information to obtain the equation of lines and circles.

4. Utilize function concepts.

5. Draw the graphs of functions utilizing behavior information and/or transformations.

6. Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form and in the presentation of evidence.

7. Traverse the bridge from theory to practice by using theorems related to polynomial functions and demonstrate proficiency in working with polynomial functions.
8. Apply concepts and properties of the logarithm functions.
9. Understand the concept of proof as a chain of inferences by doing some proofs.

Note: All SLO assessments are embedded in class activities, homework, quizzes, or Exams.

**FOUNDATION HALLMARKS**

Math 135 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 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.

**LEARNING RESOURCES & MATERIALS**

**REQUIRED MATERIALS:**
- WebAssign access code register at https://www.webassign.net/v4cgi/selfenroll/classkey.html with class key: **wcc.cc.hi 2752 4997**
- Calculator: TI-83, TI-83+, TI-84, TI-84+, TI Nspire CX

**LEARNING RESOURCES:**
- Math Lab: La’akea (Library Learning Commons) Room 220 http://windward.hawaii.edu/About_WCC/Math_Lab/index.php
- Testing Center: La’akea (Library Learning Commons) Room 228 Phone: 235-7498 http://windward.hawaii.edu/Testing_Center/index.php
- Brainfuse Online Tutors: http://windward.hawaii.edu/Brainfuse/
- OLA (UH online tutoring program): http://manoa.hawaii.edu/ola/
- Kahn Academy Videos: http://www.khanacademy.org
**DISABILITIES ACCOMMODATION STATEMENT**

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 ‘Akoakoa 213 for more information, or visit http://windward.hawaii.edu/Disabilities/.

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**COURSE TASKS & GRADING**

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

<table>
<thead>
<tr>
<th>Task</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>4 Unit Exams and the</td>
<td>(80% of possible points)</td>
</tr>
<tr>
<td>Department Final Exam</td>
<td></td>
</tr>
<tr>
<td>Homework/Classwork</td>
<td>(20% of possible points)</td>
</tr>
</tbody>
</table>

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>
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<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>N</td>
<td>See below</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>See below</td>
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Note: The N grade indicates that the student has worked conscientiously, attended class 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.

The N grade is an optional grade that instructors do not have to give. All requests for the N grade must be submitted by the student in writing and is contingent upon the instructor’s approval.

Note: CR/NC grades require written instructor consent. 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.
Note: The W grade is given only when the student officially withdraws from the course by the posted deadline.

Note: The I grade is a temporary grade given at the instructor's discretion when a student has failed to complete a small part of a course because of circumstances beyond his or her control.

A student may qualify for the I grade if (a) they are unable to take the final exam and (b) taking the final exam could possibly raise their course grade. The I grade is given by student request and must be approved by the instructor.

ADDITIONAL INFORMATION

ABSENCES
It is your responsibility to attend class. If you are absent, you are responsible for any important announcements or assignments given during the class you missed. It is your responsibility to meet with your instructor to review any missed lecture material. You may drop in during posted office hours or make an appointment to meet one-on-one. Please do not send email requests for missed lecture material. If you are absent frequently or for an extended period of time, contact the instructor as soon as you can to discuss your situation. Frequent absences could negatively impact your grade.

MAKE-UP POLICY
If you are unable to attend class on an exam day, discuss your situation with the instructor as soon as possible before the exam day. It may be possible for you to take the exam earlier than the specified day/time. If you unexpectedly must be absent on an exam day, notify me by 4:00 pm via voicemail or email. If notification is received and the reason is justified then a make-up exam will be scheduled. The instructor reserves the right to request documentation to determine whether the absence is justifiable. For each student, NO MORE THAN ONE make-up exam may be taken.

CALCULATORS
Some problems require the use of a graphing calculator. You are free to use any type of graphing device for homework problems, but department policy prohibits the calculators other than a TI-83/84 series on exams including the final exam.

EXAMS
There are no retests on exams. The final exam is cumulative.

HOMEWORK
Homework assignments are worth 10 points each. Assignments are completed both electronically using WebAssign and traditionally with paper and pencil using problems from the textbook.

GRADING
Grades sheets will be provided to individuals after each exam. To receive full credit for problems done on exams or graded homework, you must show sufficient work in a clear and organized manner. Your work must be neat and organized. "Messy" and/or disorganized work will not receive full credit.
CELL PHONES & OTHER DEVICES
Cell phones should be silenced and put away prior to the start of class. Other electronic devices such as laptops and iPads may not be used during class.

DISRUPTIVE BEHAVIOR & ACADEMIC HONESTY
Please respect your fellow students and act accordingly. If a student takes part in disruptive behavior, the instructor reserves the right to exclude the student immediately from the class meeting. Examples are activated cell phones, texting, making offensive remarks, prolonged chattering, smokeless cigarettes, etc.

Graded homework assignments may be discussed with your classmates and you may seek guidance from the instructor, the Math Lab tutors, the Trio tutors (if you are a Trio client), or the SIL (if assigned to your course). However, the write up of the solution for each problem must be done on your individual effort.

All exams must be done by your own individual effort. You may not consult with any classmates while taking exams. 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. An “F” will be assigned to students involved in cheating and will be reported to the Dean. See http://windward.hawaii.edu/Policies/ for more information on the UH system-wide student conduct code.