MATH 135 – PRECALCULUS: ELEMENTARY FUNCTIONS (3 Credits)

INSTRUCTOR: Jody-Lynn Storm
OFFICE: Mana’opono 105
OFFICE HOURS: MWF 10:00 am – 11:00 am
TR 12:00 pm – 1:00 pm
And by appointment
TELEPHONE: (808) 236 – 9277
EMAIL: jstorm@hawaii.edu
WEBSITE: http://www.jodystorm.com
EFFECTIVE DATE: Fall 2014

<table>
<thead>
<tr>
<th>CRN</th>
<th>Days</th>
<th>Time</th>
<th>Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>62547</td>
<td>TR</td>
<td>10:00 am – 11:15 am</td>
<td>Mana’opono 114</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:
  - If you have a WebAssign access code and would like to use the ebook provided you may register at https://www.webassign.net/v4cgi/selfenroll/classkey.html with class key: wcc.cc.hi 6671 8841
- Calculator: TI-83, TI-83+, TI-84, or TI-84+

LEARNING RESOURCES:
- Supplemental Instruction Leader (SIL): Shaynalynn Ah Sam
  Email: sahsam@hawaii.edu
- 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/
• TRiO: http://windward.hawaii.edu/TRIO/index.php
• 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/

**COURSE TASKS & GRADING**

Grades are posted on the Laulima gradebook. Grades for this course are based on the following course tasks:

<table>
<thead>
<tr>
<th>Task</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 exams @100 pts</td>
<td>300 pts</td>
<td>(50% of possible pts)</td>
</tr>
<tr>
<td>Homework</td>
<td>168 pts</td>
<td>(28% of possible pts)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>132 pts</td>
<td>(22% of possible pts)</td>
</tr>
<tr>
<td>Total</td>
<td>600 pts</td>
<td></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>
</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>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>
</tr>
</tbody>
</table>

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 may only use a TI-84+ or lower model graphing calculator on exams. You may not use higher models, such as the TI-89 or the TI-Nspire on exams as these come equipped with CAS.

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

HOMEWORK
Assigned homework problems are worth 6 points each. Homework is due at the beginning or at the end of class. Do not turn in assignments during lecture, as it is
disruptive. There is a 3-point penalty for late homework. Assignments and due
dates are posted on the instructor’s webpage. You may need to do more than the
assigned homework problems to become comfortable with the concepts and
skills.

SUPPLEMENTAL INSTRUCTION (SI)
For every hour of SI attended, 1 point will be added to your homework score. Points
earned cannot bring the homework score above the maximum of 168 points.

This class is supported by the Supplemental Instruction (SI) program. SI is a FREE, collaborative,
peer-study program that helps students succeed in difficult classes. Your SI Leader is a peer who
has taken this class (or a higher level class) previously and has an understanding of the course
material. In SI sessions, students will work together with the SI leader to explore important
concepts, review class notes, discuss test taking strategies, and review for tests. All students in this
class are encouraged to attend!

Note: At WCC, students who attend SI sessions earn A, B, and C grades at nearly a 20% higher
rate than non-attendees and are less likely to withdraw from their courses. WCC data has also
shown that the more sessions students attend, the more likely they are to pass.

GRADING
Grades are posted on Laulima. 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.
# MATH 135 TENTATIVE SCHEDULE

## Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUG 29</td>
<td>Last day to register/add/drop and to receive 100% refund of tuition</td>
</tr>
<tr>
<td>SEP 15</td>
<td>Last day for 50% refund of tuition and to withdraw without a &quot;W&quot; grade.</td>
</tr>
<tr>
<td>OCT 30</td>
<td>Last day to withdraw with a &quot;W&quot; or choose CR/NC grade option. Last day to make up &quot;I&quot; grade from previous semester</td>
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<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>AUG 26 Orientation, 1.1</td>
<td>AUG 28 1.2, 1.3</td>
</tr>
<tr>
<td>SEP 2 1.3, 1.4</td>
<td>SEP 4 1.4, 1.5</td>
</tr>
<tr>
<td>SEP 9 1.5, 1.6</td>
<td>SEP 11 1.6, 1.7</td>
</tr>
<tr>
<td>SEP 16 1.8</td>
<td>SEP 18 1.10, 1.11</td>
</tr>
<tr>
<td>SEP 23 Exam 1 Review</td>
<td>SEP 25 EXAM 1 (Ch1)</td>
</tr>
<tr>
<td>SEP 30 2.1, 2.2</td>
<td>OCT 2 2.2, 2.3</td>
</tr>
<tr>
<td>OCT 7 2.3, 2.4</td>
<td>OCT 9 2.5</td>
</tr>
<tr>
<td>OCT 14 2.6, 2.7</td>
<td>OCT 16 2.7, 3.1</td>
</tr>
<tr>
<td>OCT 21 3.1, 3.2</td>
<td>OCT 23 3.2, 3.4</td>
</tr>
<tr>
<td>OCT 28 Exam 2 Review</td>
<td>OCT 30 EXAM 2 (Ch2, 3.1, 3.2)</td>
</tr>
<tr>
<td>NOV 4 No Class Election Day</td>
<td>NOV 6 3.4, 3.7</td>
</tr>
<tr>
<td>NOV 11 No Class Veteran's Day</td>
<td>NOV 13 3.7, 4.1</td>
</tr>
<tr>
<td>NOV 18 4.1, 4.2</td>
<td>NOV 20 4.3</td>
</tr>
<tr>
<td>NOV 25 4.4, 4.5</td>
<td>NOV 27 No Class Thanksgiving</td>
</tr>
<tr>
<td>DEC 2 4.6</td>
<td>DEC 4 Exam 3 Review</td>
</tr>
<tr>
<td>DEC 9 EXAM 3 (3.3, 3.4, 3.7, Ch4)</td>
<td>DEC 11 Final Exam Review</td>
</tr>
<tr>
<td>DEC 16 FINAL EXAM 10:00 am - 12:00 pm</td>
<td>DEC 18</td>
</tr>
<tr>
<td>DEC 23</td>
<td>DEC 25 MERRY CHRISTMAS!!</td>
</tr>
</tbody>
</table>