MATH 135 – PRECALCULUS: ELEMENTARY FUNCTIONS (3 Credits)

INSTRUCTOR: Jody-Lynn Storm
OFFICE: Mana'opono 105
OFFICE HOURS: Monday - Thursday 11:30 am – 12:30 pm
                       Friday 10:00 am – 11:00 am
                       And by appointment
TELEPHONE: (808) 236 – 9277
EMAIL: jstorm@hawaii.edu
WEBSITE: http://www.jodystorm.com
EFFECTIVE DATE: Spring 2013

CRN	Days	Time	Classroom
62064	MW	10:00 am – 11:15 am	Mana'opono 114
62173	TR	10:00 am – 11:15 am	Mana'opono 115

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.

WCC: FS

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:
- Textbook: Precalculus, Mathematics for Calculus, 6th ed., by Stewart, Redlin & Watson
- Calculator: TI-83, TI-83+, TI-84, or TI-84+

LEARNING RESOURCES:

- Supplemental Instruction (SI): TBA

- Math Lab: La'akea (Library Learning Commons) Room 226
  http://windward.hawaii.edu/About_WCC/Math_Lab/index.php

- Testing Center: La'akea (Library Learning Commons) Room 228
  Phone number 235-7498
  http://windward.hawaii.edu/Testing_Center/index.php

- Smarthinking Online Tutors: http://windward.hawaii.edu/smarthinking/

- 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

COURSE TASKS & GRADING

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

3 exams @100 pts	300 pts	(50% of possible pts)
Course Activities	170 pts	(28% of possible pts)
Final Exam	130 pts	(22% of possible pts)
Total	600 pts	

Course Activities may include, but are not limited to:
- ❖ Homework problems   ❖ In-class activities
- ❖ Pop-quizzes   ❖ SI sessions

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

Letter Grade	Definition
A	90% - 100% of the cumulative points possible
B	80% - 89% of the cumulative points possible
C	70% - 79% of the cumulative points possible
D	60% - 69% of the cumulative points possible
F	Less than 60% of the cumulative points possible
N	See below
CR	70% - 100% of the cumulative points possible
NC	Less than 70% of the cumulative points possible
W	Official Withdrawal
I	See below

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 <u>student officially withdraws</u> from the course by the posted deadline.

Note: *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.*

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 <u>student request</u> and must be approved by the instructor.

ADDITIONAL INFORMATION

<u>ABSENCES</u>

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.

<u>MAKE-UP POLICY</u>

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. **There are no make-up opportunities for missed homework, graded in-class activities or other graded course activities.**

<u>CALCULATORS</u>

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.

<u>EXAMS</u>

There are **no retests** for chapter exams or quizzes. The final exam is cumulative.

<u>HOMEWORK</u>

Assigned homework problems are worth 5 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 2.5-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**.

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 beepers and cell phones, texting, making offensive remarks, **prolonged chattering**, smokeless cigarettes, etc.

All quizzes and exams must be done by your own individual effort. You may not consult with any classmates while taking quizzes or 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.

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.

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

	Monday		Wednesday
	Storm - Spring 2013 - Tentative Schedule Math 135 MW 10:00 am – 11:15 am		
JAN 7	Orientation 1.1	JAN 9	1.2, 1.3
JAN 14	1.4, 1.5	JAN 16	1.5, 1.6
JAN 21	**No Class** Martin Luther King Day	JAN 23	1.6, 1.7
JAN 28	1.7, 1.8	JAN 30	1.8, 1.10
FEB 4	1.10, 1.11	FEB 6	Exam Review
FEB 11	**EXAM 1 (Ch 1)**	FEB 13	2.1, 2.2
FEB 18	**No Class** President's Day	FEB 20	2.3, 2.4
FEB 25	2.4, 2.5	FEB 27	2.6
MAR 4	2.7	MAR 6	3.1
MAR 11	3.2	MAR 13	Exam Review
MAR 18	**EXAM 2 (Ch 2, 3.1, 3.2)**	MAR 20	3.3, 3.4
MAR 25	**Spring Recess**	MAR 27	**Spring Recess**
APR 1	3.4, 3.7	APR 3	3.7, 4.1
APR 8	4.2	APR 10	4.3
APR 15	4.4	APR 17	4.5, 4.6
APR 22	Exam Review	APR 24	**EXAM 3 (3.3, 3.4, 3.7, Ch 4)**
APR 29	Final Exam Review	MAY 1	Final Exam Review
MAY 6	**FINAL EXAM** **10:00 am - 12:00 pm**	MAY 8	

Important Dates	
JAN 11	Last day to register/add/drop and to receive 100% refund of tuition
JAN 28	Last day for 50% refund of tuition and to withdraw without a "W" grade.
MAR 21	Last day to withdraw with a "W" or choose CR/NC grade option Last day to make up "I" grade from previous semester

	Storm - Spring 2013 - Tentative Schedule		
	Math 135 TR 10:00 am – 11:15 am		
	Tuesday		**Thursday**
JAN 8	Orientation 1.1	JAN 10	1.2, 1.3
JAN 15	1.3, 1,4	JEN 17	1.4, 1.5
JAN 22	1.5, 1.6	JAN 24	1.6, 1.7
JAN 29	1.8	JAN 31	1.10, 1.11
FEB 5	Exam Review	FEB 7	**EXAM 1 (CH1)**
FEB 12	2.1, 2.2	FEB 14	2.2, 2.3
FEB 19	2.3, 2.4	FEB 21	2.4, 2.5
FEB 26	2.5, 2.6	FEB 28	2.7, 3.1
MAR 5	3.2	MAR 7	Exam Review
MAR 12	**EXAM 2 (CH 2, 3.1, 3.2)**	MAR 14	3.3, 3.4
MAR 19	3.4, 3.7	MAR 21	3.7, 4.1
MAR 26	**Spring Recess**	MAR 28	**Spring Recess**
APR 2	4.1, 4.2	APR 4	4.2, 4.3
APR 9	4.3, 4.4	APR 11	4.4, 4.5
APR 16	4.5, 4.6	APR 18	Exam Review
APR 23	**EXAM 3 (3.3, 3.4, 3.7, Ch 4)**	APR 25	Final Exam Review
APR 30	Final Exam Review	MAY 2	**No Class** Non-instructional Day
MAY 7	**FINAL EXAM** **10:00 am - 12:00 pm**	MAY 9	
MAY 14		MAY 16	

Important Dates	
JAN 11	Last day to register/add/drop and to receive 100% refund of tuition
JAN 28	Last day for 50% refund of tuition and to withdraw without a "W" grade.
MAR 21	Last day to withdraw with a "W" or choose CR/NC grade option Last day to make up "I" grade from previous semester