

Math 135
Precalculus: Elementary Functions
Spring 2013
MW 9:00-10:15 Kupa'a 101
MW 1:30- 2:45 Kupa'a 102

Instructor: Donna Harbin
Email: dharbin@hawaii.edu
Office: Kupa'a 212
Hours: MW 4:30- 5:30,
TTH 10:30-11:30 and by appointment

Course Description:

Investigates the nature of functions and examines polynomial, rational, exponential and logarithmic functions. Studies the solution to equations and inequalities in one and several variables.

Required Materials:

- Blitzer (2010) Precalculus (4th edition). Upper Saddle River, NJ: Pearson, Prentice Hall
 - Access code to My Math Lab (packaged with text, on-line or at bookstore) is required; access code includes e-text
 - Paper copy of text is optional; Package from bookstore includes text and access code; Text is also used for MATH 140.
- Scientific Calculator

Grading : Your average grade will be based on the points you earn. All points will be recorded in MML.

Available Points

Computer (MML)

- Homework (25 HW x 10 pts) = 250
- Quizzes (8 Q x 10 pts) = 80
- Test Preps for FE(3T x 10pts) = 30
- Comprehensive Final Exam = 160

Tests – written or MML in-class,
or written take-home, or combination

- Three tests (3T x 160 pts) = 480

Total : 1000 Points

Final Grade Computation

Points \geq 900	A #
$800 \leq$ Points $<$ 900	B #
$700 \leq$ Points $<$ 800	C
$600 \leq$ Points $<$ 700	D
Points $<$ 600	F

You must also score at least
60% on the Final Exam to earn an
A or B in the course

No Rounding

How do I access the course?

<http://www.coursecompass.com/> Course ID harbin97694

You will need the access code provided with your text and the course ID code provided by me. Computers on campus are loaded with the software, and you may load the software on your home computer. Homework is a tool to help you

recognize your mastery of the material. I encourage you to ask questions (in class, in my office or by e-mail) and to talk to your fellow classmates about the homework problems. Swap phone numbers and don't forget about tutors from TLC (984-3240).

Homework, Quizzes and Test Preps: These are computer based. Answers will be entered using My Math Lab. Get in the habit of keeping a notebook with the details of your work. It will help you ask questions and prepare you for the writing you will need to do on the tests. **Print out the due dates in MML.**

- Homework and quizzes may be completed anywhere you have Internet access.
- The Math Computer Lab and tutors in Kupa'a 203 are only for MATH 18 and 82, not for this class. You can use the TLC or other labs on campus.
- You have unlimited attempts at the homework. There is a 25% late penalty for HW problems submitted after the due date. It is to your advantage to complete homework as soon as possible after class, so you can ask questions about the material during the next class.
- Yes, you can guess and get problems correct in MML. That strategy will not work on the written tests, where you must show your work and explain your reasoning.
- You have 5 attempts at each quiz and must complete by the due date. The time limit for each quiz is 120 minutes. You must submit the quiz when you are finished – you cannot stop and resume later. For you to access the 3rd attempt, you must have at least a 70% average on the associated homework. **Quizzes not completed by the due date will receive a grade of zero. It is your responsibility to keep up with due dates.**
- Notice that the final exam is on-line in the classroom. Pay attention to answer formatting in your homework and quizzes.
- Test Preps cover an entire chapter and should be done when the chapter is completed. You can ask for additional attempts as an additional review for the final exam. You have 5 attempts and 120 minutes. They are not optional.

To keep organized, create an **“Everything you want to know about Precalculus” Notebook**

You should make notes as you work through the problems, so you have examples to study for the test. Label the section and the date. Many problems on tests will be similar to the homework problems.

The following sections may be helpful:

1. Class Notes – know the date, the section we are covering and what was said in class. We may not cover every part of every section and I may have hints to help you. If you are not in class, you could miss the major points on the exam. Just doing the MML homework will not prepare you for the tests.

2. Homework – don't scribble your work on scratch paper (you won't find it when you have a question). Keep it together and labeled by section, problem and date. Homework is a tool to help you recognize your mastery of the material. I encourage you to ask questions (in class, in my office or by e-mail) and to talk to your fellow classmates about the homework problems. Swap phone numbers and don't forget about tutors from TLC (984-3240).
3. Vocabulary – Definitions, Properties, Theorems and Formulas – USE YOUR TEXT to look these up. They might show up as test questions.
4. Procedures – Notes to yourself "What process do I use to find the equation of a line through two points?" This will help you prepare for tests.

MATH 135 topics will show up again in Calculus and you will be prepared with a ready reference. Bring it to class to ask questions about homework.

In-Class-Tests – See Calendar for Dates:

- Tests are closed book. You will be able to use a calculator and one page of notes that include definitions and formulas, but not worked out examples.
- There is only one attempt for each test. Keep up and be prepared.
- Make-up tests are only given in exceptional circumstances, so plan to be in class on test days. If you miss one of Tests 1-3, and contact me before the exam and provide a doctor's note, I will use the points you earn on the comprehensive final as a replacement score. If you miss more than 1 test, you will receive a zero for the other missing tests.
- Some exams may also have a take-home component. When they do, the take-home problems will be distributed in class.
- **You should expect to provide clear, well written and legible, detailed and mathematically correct explanations to receive full credit for a problem.**

On-line (MML) Comprehensive Final Exam in the classroom

Monday, May 6 1:30 - 3:30 (MW 1:30 class)

Wednesday, May 8 9:00-11:00 (MW 9:00 class)

- The on-line final exam will be given in the classroom. It will be closed book and closed notebook. You will be able to use one page of notes that include definitions, formulas and procedures but no worked out examples. You will need your calculator. Be careful with formatting of answers!
- You will have 120 minutes.
- You must also turn in your written work to support the answers submitted in My Math Lab. Your MML grade may be reduced if you do not have the supporting documentation. Some problems may require you to show work in MML.

Other Course Information:

Course Standards and Ethical Behavior: Each student must satisfy the prerequisites for this course or get approval to take this course from the instructor. Look over Chapter P. If most of this is not review, you should see if you have been placed in the correct course. Each student must maintain high standards of honesty and ethical behavior. All assignments, tests and exams you submit must be your own work. Cheating will result in a zero on the assignment. A second incidence of cheating will result in an F in the course.

Unacceptable Behavior: Behavior that disrupts the positive educational experience for the class as a whole (this includes cell phones) will not be tolerated. You are encouraged to read the MCC General Catalogue concerning Academic Dishonesty and Student Conduct.

Show Work: Show your work to each problem on all assignments, unless the problem only requires a one word or one number answer. You will not receive full credit without this “documentation”. If in doubt, ask me.

Accommodations for Students with Disabilities: Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you believe you have a disability requiring accommodations, please notify Lisa Deneen - Disabilities Coordinator at 984-3227 or Telecommunication Device for the Deaf (TDD) 984-3325 or the Text Telephone (TT) replay service at 643-8833. The Disabilities Coordinator will verify your disability and provide the course instructor with recommendations for appropriate accommodations.

Academic Probation Policy (APP): All University of Hawai'i Maui College students must maintain a cumulative GPA of 2.0 or higher. Failure to do so could result in the following: Warning, Probation, Suspension, and Dismissal. For more information go to to http://maui.hawaii.edu/?s=student&p=ac_policy or contact your academic counselor.

ASSESSMENT: A sample of your work may be anonymously used to assess student achievement of the college-wide academic student learning outcomes and the program learning outcomes for your graduating degree program.

Material Covered in Math 135

Chapter P – Fundamental Concepts of Algebra is review and will not be covered. Refer to it as necessary.
Chapter 1 – Graphs, Functions and Models
Chapter 2 – Polynomials and Rational Functions

Chapter 3 – Exponential and Logarithmic Functions

Chapter 7 - 7.4 and 7.5 – Systems of non-linear equations and inequalities

Specific Course Competencies

On successful completion of this course, students will be able to

- a. Draw a complete and adequate picture of the relationship or function. Use algebraic, numerical, and graphical techniques to locate specific points or regions (Solve equations and inequalities). Describe the characteristics of the relation (domain, range, asymptotes, symmetries, extreme points) for a function given a data set, graph or equation.
- b. Do part a above focusing on the polynomial, rational, exponential and logarithmic functions
- c. Find the inverse of a function and the composite of two functions.
- d. Use the special exponential and logarithmic algebraic properties and identities to rewrite expressions and solve equations.
- e. Work with systems of equations and matrix representation to solve problems.
- f. Use algebraic and graphical techniques to solve equations and inequalities of the polynomial, rational, exponential and logarithmic functions.
- g. Use the knowledge and techniques of this course in solving applied problems.
- h. Use computer/calculator technology as an aid in working mathematical problems.

As you might guess, these are the topics tested on the Comprehensive Final Exam.

This syllabus is subject to change. Changes will be discussed in class.