MAT 153 01: Pre-Calculus  
Fall 2014

Instructor: Sharon Lanaghan  
Office: LIB 5728  
Office hours: Monday & Wednesday, 10:00 – 11:00, Tuesday 4:00 – 5:00, or by appointment  
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Required Materials

Text  

Graphing Calculator  
A TI 84+ or higher calculator is required. In class directions will be given for the TI 84+ only.

Prerequisites

Students must have credit in MAT009 or have satisfied the ELM requirement before enrolling in MAT 153.

Objectives

After completing MAT 153 the student should be able to

- obtain the domain and graph of linear, quadratic, exponential, logarithmic, trigonometric, and inverse trigonometric functions
- understand the Vertical and Horizontal Line Tests
- find the composition of two functions algebraically, and the inverse of a function, both algebraically and geometrically
- understand the effects on the graph of a function (e.g. translations and/or reflections) due to standard algebraic changes to the function
- use laws of exponents and logarithms and trigonometric identities
- simplify expressions involving exponential, logarithmic, and trigonometric functions
- solve exponential, logarithmic, and trigonometric equations
- prove trigonometric identities
- solve standard exponential growth and decay problems
- understand the correspondence between the symmetries of the trigonometric circle and the symmetries of the trigonometric functions
- use a graphic calculator to graph and evaluate exponential, logarithmic, and trigonometric functions
- solve triangles using the Laws of Sines and Cosines
- apply trigonometry to surveying, navigation, area, and angular speed problems and harmonic oscillations
- throughout, use standard mathematical notation and terminology and avoid nonsensical expressions and statements.

Expected outcomes

Students should be able to demonstrate through homework, class participation, short tests and scheduled examinations, that they have achieved the objectives of MAT 153.

Grading Policy

Student’s grades will be based on the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exams (3, each 15%)</td>
<td>45%</td>
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<tr>
<td>Quizzes</td>
<td>15%</td>
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<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Attendance/Participation</td>
<td>5%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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</tbody>
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Grading Scale

A: 92% or better
A-: 88-91%
B+: 85-87%
B: 81-84%
B-: 78-80%
C+: 75-77%
C: 71-74%
C-: 68-70%
D: 50-67%
F 50% or below

Attendance Requirements

Attendance is required so that you can participate in class discussions and activities. Five or more absences are grounds for an automatic F. If you are absent, please contact another student or check blackboard to get assignments you have missed.

Policy on Due Dates and Make-Up Work

There will be two types of homework for this course: homework from the book, and Webwork. Homework from the book is generally assigned during each class, and is due at the beginning of the next class meeting. Late work is not accepted. If you are unable to attend class due to an emergency, you have until the beginning of the next class meeting to turn in the work. Webwork is generally assigned weekly, and students will have until the closing date of the Webwork assignment to complete and submit it. Late Webwork will not be accepted for any reason.

Exams may be made up only if the exam is missed due to an emergency. Do your best to contact the instructor prior to the exam, but if this is not possible, notify the instructor as soon as possible and work out a time to retake the exam.

Course Schedule

The following dates are scheduled for exams and the final exam.
Exam 1  Friday, 9/19/14
Exam 2  Friday, 10/24/14
Exam 3  Wednesday, 11/26/14
Final Exam  Wednesday, 12/10/14

Other important dates can be checked on Blackboard throughout the semester.

Academic Integrity

The mathematics department does not tolerate cheating. Students who have questions or concerns about academic integrity should ask their professors or the counselors in the Student Development Office, or refer to the University Catalog for more information. (Look in the index under "academic integrity").

Accommodations for Students with Disabilities

Cal State Dominguez Hills adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with Disabled Student Services (DSS) and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. Please note: no accommodation may be made until you register with the DSS in WH B250. For information call (310) 243-3660 or to use telecommunications Device for the Deaf, call (310) 243-2028.