# Math 190 - Pre-calculus - Summer 2013 

SYLLABUS

Professor: Eric Lehtonen<br>Phone: 355-6522<br>e-mail: Eric.lehtonen@imperial.edu<br>Office: 2763<br>Office hours: M-TH 2:30-3:30

Calculators: The TI-30 Calculator or equivalent is required for this class.
Text: Pre-calculus, Blitzer, $4^{\text {th }}$ edition.

## Grading:

Exams $\quad 90 \%$ There will be 3 Exams. Each exam may be cumulative. Please note the
Homework $10 \%$ Homework will be assigned daily.

Attendance: Students not attending the first day of class will be automatically dropped. Students missing more than one week worth of classes, dating from when the student first enters the class will be dropped.

Any student with a documented disability who may need educational accommodation should notify the instructor or the Disabled Student Programs and Services (DSP\&S) office as soon as possible.

## MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF "C":

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Demonstrate a solid knowledge of the general concepts of functions..
2. Demonstrate the ability to work with polynomial and rational functions in the complex number system.
3. Demonstrate a working knowledge of exponential and logarithmic functions.
4. Demonstrate knowledge in the formulation of analytic trigonometry.
5. demonstrate the ability to solve application problems invovling trigonometry.
6. Demonstrate a strong foundation in the introduction to trigonometry.
7. Demonstrate skills in analytic geometry.
8. Demonstrate basic knowledge of sequences and series.

## Student Learning Outcomes:

By the end of this course the successful student should be able to:

| Compute the difference quotient of given function $f(x)$. |
| :--- |
| Solve triangles using appropriate trigonometric laws. |
| Solve application problems involving logarithmic or exponential functions |
| Find roots of polynomials of degree 3 or more |
| Apply function operations both algebraically and graphically. |

## Lecture And Test Schedule

## Week 1 Sections

$$
\begin{array}{ll}
\text { June 16 } & 1.1-1.5 \\
\text { June 17 } & 1.6-1.9 \\
\text { June 18 } & 2.1-2.3 \\
\text { June 19 } & 2.4-2.5
\end{array}
$$

## Week 2

```
June 23 2.6-2.7
June 24 2.7-3.1(Skip 2.8)
June 25 3.2-3.3
June 26 Test 1
```

Week 3

| June 30 | Chapter 4 |
| :--- | :---: |
| July 1 | $5.1-5.2$ |
| July 2 | $5.3-5.4$ |
| July 3 | $5.5-6.1$ |

Week 4

```
July 7 6.2-6.3
July 8 6.4-6.5
July 9 7.3
July 10 Test 2
```

Week 5

| July | 14 | $9.1-9.2$ |
| :--- | :--- | :--- |
| July | 15 | $9 . .3-9.4$ |
| July | 16 | 9.4 |
| July | 17 | $10.1-10.2$ |

Week 6

| July | 21 | 10.3-10.4 |
| :--- | :--- | :--- |
| July | 22 | Review |
| July | 23 | Test 3 |

## HOMEWORK ASSIGNMENTS

All homework assignments MUST be turned in on 81/2 X11 blue books. No late homework is accepted. They are due the day of the tests. Neatness matters... a lot. (Up to $50 \%$ ). The homework problems represent the barest minimum of what you should be attempting, and, generally are more difficult than the test problems.

More homework Rules:

1. The problems must be written neatly, in ink.
2. They must be in order.
3. 

## Chapter 1

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 . 1}$ | Review | $\mathbf{1 . 6}$ | $32,72,112$ |
| $\mathbf{1 . 2}$ | $22,32,44,76$ | $\mathbf{1 . 7}$ | $14,36,62$, |
| $\mathbf{1 . 3}$ | $34,42,52,74,76$ | $\mathbf{1 . 8}$ | $4,22,42$ |
| $\mathbf{1 . 4}$ | $24,44,6490$ | $\mathbf{1 . 9}$ | $8,26,32,48,58$ |
| $\mathbf{1 . 5}$ | $6,8,18,32$ |  |  |

## Chapter 2

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{2 . 1}$ | $8,16,24,32,46$ | $\mathbf{2 . 5}$ | $8,16,24,32$ |
| $\mathbf{2 . 2}$ | $12,24,40$ | $\mathbf{2 . 6}$ | $58,62,76$ |
| $\mathbf{2 . 3}$ | $20,30,40,76$ | $\mathbf{2 . 7}$ | $12,36,48$ |
| $\mathbf{2 . 4}$ | $12,24,36,42$ |  |  |

## Chapter 3

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{3 . 1}$ | $16,30,48$ | $\mathbf{3 . 4}$ | $10-90$, by 20's |
| $\mathbf{3 . 2}$ | $8,32,56,74$ | $\mathbf{3 . 5}$ | $\mathbf{4 , 1 6 , 3 2}$ EC |
| $\mathbf{3 . 3}$ | $44,50,56,62,68$ |  |  |
|  |  |  |  |

## Chapter 4

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| Chapter 4 Test, Page 583 |  |  |  |

Chapter 5

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{5 . 1}$ | 6-60, By 6's | $\mathbf{5 . 4}$ | 6,18,26,34 $\mathbf{\text { EC }}$ |
| $\mathbf{5 . 2}$ | 6-60, By 6's | $\mathbf{5 . 5}$ | $10-110$, By 10'S |
| $\mathbf{5 . 3}$ | 6-60, By 6's |  |  |

## Chapter 6,7

| Sec. | \#'s | Sec | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{6 . 1}$ | $12,24,30,32$ | $\mathbf{6 . 4}$ | $14-34$ by 5 ' $\mathrm{s}, 40$ |
| $\mathbf{6 . 2}$ | $12,18,24$ | $\mathbf{6 . 5}$ | $42,46,58,66,72$ |
| $\mathbf{6 . 3}$ | $12-72$ by 12 's | $\mathbf{7 . 3}$ | $16,26,30,42$ |

## Chapter 9

| Sec. | \#'s | Sec. | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{9 . 1}$ | $4,26,42,52$ | $\mathbf{9 . 3}$ | $10,40,48$ |
| $\mathbf{9 . 2}$ | $16,36,46$ | $\mathbf{9 . 4}$ | 28,38 |

## Chapter 10

| Sec. | \#'s | Sec. | \#'s |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 0 . 1}$ | $12,24,32,44$, | $\mathbf{1 0 . 3}$ | $12,26,36,40$ |
| $\mathbf{1 0 . 2}$ | $6,16,26,46$ | $\mathbf{1 0 . 4}$ | $14,18,26$ |

