MATH 11A- CALCULUS WITH APPLICATIONS
SUMMER SESSION I- 2019
TuWF 01:00PM-03:30PM
N. Sci Annex 102

Instructor: Cisil Karaguzel   Office hours: Wed-Th 11:30 AM-12:30PM(at the classroom)
Email: ckaraguz@ucsc.edu

Textbook:  Biocalculus-Calculus for Life Sciences by J.Stewart and T.Day. You will need homework code since we will be using WebAssign.

Grading Policy: There will be one midterm and one final exam. Moreover, we will have four worksheets and one final review worksheet which we will be working all together in the class and then turn your own solutions in. We will also have weekly WebAssign homework. The percentage of each assignment is as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Midterm</td>
<td>30%</td>
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<tr>
<td>Worksheets</td>
<td>20%</td>
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<tr>
<td>WebAssign</td>
<td>10%</td>
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<tr>
<td>Final</td>
<td>40%</td>
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</tbody>
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Academic integrity: Academic integrity is taken seriously, and violations will be dealt with swiftly according to UCSC policy, described at https://ue.ucsc.edu/academic-misconduct.html. Violations on homeworks will be penalized by a score of zero on the relevant homework. Repeated violations, or violations on the midterm or final may lead to more serious disciplinary consequences through the UCSC procedures.

DRC: UC Santa Cruz is committed to creating an academic environment that supports its diverse student body. If you are a student with a disability who requires accommodations to achieve equal access in this course, please submit your Accommodation Authorization Letter from the Disability Resource Center (DRC) to me privately during my office hours or by appointment, preferably within the first two weeks of the quarter. At this time, I would also like us to discuss ways we can ensure your full participation in the course. I encourage all students who may benefit from learning more about DRC services to contact DRC by phone at 831-459-2089 or by email at drc@ucsc.edu.

Tentative Lecture Schedule:
25 June: 1.1 Four Ways to Represent a Function
         1.2 A Catalog of Essential Functions
         1.3 New Functions from Old Functions
         1.4 Exponential Functions

26 June: 1.5 Logarithms; Semilog and Log-Log Plots
         1.6 Sequences and Difference Equations
         2.1 Limits of Sequences

28 June: 2.2 Limits of Functions at Infinity
         2.3 Limits of Functions at Finite Numbers
            * Worksheet 1

2 July: 2.4 Limits: Algebraic Methods
         2.5 Continuity

3 July: 3.1 Derivatives and Rates of Change
         3.2 The Derivative as a Function

5 July: 3.3 Basic Differentiation Formulas
         3.4 The Product and Quotient Rules
         3.5 The Chain Rule
            * Worksheet 2

9 July: 3.5 (cont.) The Chain Rule
         3.6 Exponential Growth and Decay
         3.7 Derivatives of the Logarithmic and Inverse Tangent Functions

10 July: 3.8 Linear Approximations and Taylor Polynomials
         * Midterm Review

12 July: ** Midterm
         * Worksheet 3

16 July: 4.1 Maximum and Minimum Values
4.2 How Derivatives Affect the Shape of a Graph

17 July: 4.3 L’Hospital’s Rule: Comparing Rates of Growth
        4.4 Optimization Problems

19 July: 4.5 Recursions: Equilibria and Stability
        * Worksheet 4

23 July: 4.6 Antiderivatives
        * Final Review Worksheet

24 July:  * (cont.) Final Review Worksheet

26 July:  * (cont.) Final Review Worksheet
        * Final Exam