## Yeditepe University Faculty of Arts and Sciences, Department of Mathematics MATH 160 Introductory Calculus 2016-2017 Fall

<b>Instructor</b> Dr. Yakup ARI	Sections 1-2	Course web www.math-stat.net	e-mail math.stat.net@gmail.com	Office hours Wednesday 11-12
Textbook :	Calculus for Biology and Medicine, 3 <sup>rd</sup> Edition, C. Neuhauser, Pearson.			
Attendance:	Students are expected to attend all class meetings and are responsible for all class material covered in class. A minimum 80% of attendance is required for this course. Any changes in this syllabus will be announced during class meetings.			
Exams:	There will be one midterm exam and a final exam. Dates of exams will be announced.			

Midterm Exam 40% + Final Exam 60%

## **Course Plan:**

**Course Grading:** 

No	Subject
1	Real Numbers, Absolute Value, Functions Ch.1-1,2,3
2	Limit and Continuity Ch.3-1,2
3	Limits at Infinity, Sandwich Thm., Intermediate Value Theorem Ch.3-3,4,5
4	Differentiation, Product rule, Chain rule, Higher order derivatives Ch.4-1,2,3,4
5	Derivatives of Trigonometric Functions, Exponential and Logarithmic Functions, Inverse Function
	Theorem, Logarithmic Differentiation Ch.4-5,6,7,8
6	Local and Absolute Extreme Values, Increasing and Decreasing Functions,
	Concavity, Inflection Points, Asymptotes, Graphing Ch.5-1,2,3
7	Optimization, L'Hospital Rule Ch.5-4,5
8	Anti-derivatives, Definite Integral, Fundamental Theorem of Calculus Ch.5-8; Ch.6-1,2,3
9	Substitution, By –parts, partial fraction Ch.7-1,2,3
10	Trigonometric Substitution, Improper Integrals, Ch.7-4,5,6
11	Differential Equations Ch.8-1,2,3
12	Linear Algebra and Analytic Geometry Ch.9-1,2,3,4
13	Systems of Differential Equations Ch11-1,2,3,4
14	Probability and Statistics

This schedule is tentative and subject to change.