CALCULUS I - MATH1101-01
SPRING 2018

Instructor:	Seungil Kim
Office:	Space21 514
Phone:	(02) 961-0451
Email Address:	sikim@khu.ac.kr
Time/Classroom:	Tue 10:30 AM - 11:45 AM / Space21 B103,
	Thu 9:00 AM - 10:50 AM / Space21 B114
Lab: Session 1:	Tue 9:00 AM - 10:15 AM / Space21 B103/B104
Webpage:	http://sikim.khu.ac.kr/2018Spring/calculusI/calc18spring.html
Office Hours:	Wed, 10:00 - 11:30 AM or by appointment

Textbook: *Essential Calculus: Early Transcendentals*, 2nd Ed., by James Stewart

Course Description: Calculus I is the introductory course of two sequential courses in calculus. This course focuses on derivatives and integrals of one variable functions and their applications. The first part of this course consists of derivative rules of basic functions and use them for optimization problems. In the second part, we shall study many important integral techniuqes such as substitution rules and integration by parts, improper integrals, and infinite sequence and series, including Taylor series.

Outcomes: The expected outcomes of this course are that
- Students can differentiate polynomials, exponentials, logarithms, products, quotients, and trigonometric and composite functions and integrate simple functions or composite functions using the substitution rule.
- Students can solve optimization problems including setting up the equations, solving them and analyzing the results.
- Students can determine the shape of a graph (increasing, decreasing, and concavity) from first and second derivatives and sketch graph.
- Students will be able to integrate functions using substitution, integration by parts, trigonometric substitutions, and partial fractions.
- Students will be able to find arclengths, areas and volumes using integration,
- Students will be able to compute Taylor polynomials and Taylor Series and find intervals of convergence.

Grading:

Average of 4 Exams	80%
Quiz Average	10%
Attendance	10%

Tentative Exam Schedule:

Exam I	Tue.	Mar. 27	9:00 AM - 11:00 AM
Exam II	Tue.	Apr. 24	9:00 AM - 11:00 AM
Exam III	Tue.	May. 15	9:00 AM - 11:00 AM
Final	Tue.	Jun. 26	9:00 PM - 11:00 AM

Emails: You must check your KHU email frequently for class announcements.

<u>No make-up exam</u> will be given without a reasonable excused absence and permission from the instructor.