

Overview. Calculus in KAIST is divided into three semesters. In MAS100 College Calculus, differentiation of functions of a single variable is covered (Chap. 1-6, and Chap. 9 in Thomas's Calculus). MAS101 picks up from inverse trigonometric functions, hyperbolic functions, and their inverses and rigorously proves Fundamental Theorem of Calculus and covers topics such as integral technique, improper integrals, convergence of infinite series, power series, and Taylor's series. Furthermore, some of topics that used to be taught before 2012 in MAS102 such as vector spaces, matrices, and coordinate systems, will be covered from Vector Calculus.

Calculus 1 in the Fall Semester is open only to freshmen who entered KAIST in Fall 2016 and passed the qualification exam on August 27; this is to make sure that we have an adequate (number of, quality of) audience; our regular opening for Calculus 1 is in the spring semester. No exceptions.

Time & Place MW 9:00AM–10:15AM, E11-309

Instructor. Prof. Sang-il Oum (엄상일, sangil@kaist.edu, Ext 2728, E6-3403)

TAs and recitations

Name	Recitation Class	E-mail	Office	Ext.
Kim, Junbeom (김준범)	A (E6-2411)	kjb2474@kaist.ac.kr	E2-3215	T.2775
Chang, Sung Woo (장성우)	B (E6-2412)	hwac99@kaist.ac.kr	E6-3425	
Cho, Yeonok (조연옥)	C (E6-2413)	imyo@kaist.ac.kr	T.B.A.	

Textbooks.

- *Thomas' Calculus: Early transcendentals*, 12th ed., W.D. Weir, J. Hass, G.B. Thomas, Pearson (week 1–11)
- *Vector Calculus*, KAIST Edition, Susan Jane Colley, Pearson Custom Publishing (week 12–15)

Course Site. <http://klms.kaist.ac.kr/>

Weekly Schedule. We will cover the textbook as follows. (Section numbers of “Vector Calculus” are written in italic.)

Week	Sections	Week	Sections
Sep. 5, 7	3.8, 7.1	Oct. 31, Nov. 2	10.7
Sep. 12	3.9, 7.2	Nov. 7, 9	10.8
Sep. 19, 21	7.3–7.4	Nov. 14, 16	10.9–10.10, 11.3
Sep. 26, 28	8.1–8.6	Nov. 21	11.4–6
Oct. 5	8.7, 10.1	Nov. 28, 30	11.7, <i>1.1–1.3</i>
Oct. 10, 12	10.2–10.5	Dec. 5, 7	<i>1.4–1.6</i>
Oct. 17, 19	10.6, Review	Dec. 12, 14	<i>1.7, Review</i>
Oct. 20–26	Midterm Exam	Dec. 15–21	Final Exam

No classes on Sep. 14 (Chuseok holiday), Oct 3 (Gaecheonjeol – National Foundation Day), Nov. 23 (University Interview Date).

Exams. There are two exams, midterm and final. Detail about the exams will be announced at the course web site.

Homework. Homework problems will be posted at the course web sites. You will have about a week to do the homework and you have to hand in your homework at the recitation class.

Recitation. 1 hour each week. (10AM-11AM or 1PM-2PM of each Friday.)

Attendance and Attitude. In each class, your attendance and attitude will be checked. If you miss more than two weeks' worth of classes after the add-drop period, your course grade will automatically be lowered by one step. No excuse for absence will be accepted under any circumstance since tolerance limit is generous. Being late for class three times is equivalent to one absence.

Course Grade. Midterm Exam (40%), Final Exam (40%), Homework (20%). The course grade can be lowered due to your *attendance penalty* as explained above.

There will be no makeup exams. If you have to miss one of the exams due to an imperative reason supported by documentation, it can be substituted by the standardized score of the other exam.

You may **get an extra point or a penalty on the homework point (20% out of 100%) based on your attendance and attitude to the recitation class.**

Finally you are reminded that this course maintains zero tolerance policy against any academic dishonesty. All academic dishonesty will be reported.

(August 25, 2016)