MAS 101   Calculus I   Spring 2014

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.

Sec	Time & Place	Instructor
A	MW 9:00 / E11-412	Prof. Koo, Ja Kyung (구자경, `koojakyung@kaist.ac.kr`, Ext 2722, E6-3409)
B	MW 9:00 / E11-301	Dr. Banerjee, Anandam (`anandam1729@kaist.ac.kr`, Ext 2763, E6-3416)
C	MW 9:00 / E11-309	Prof. Shin, Su Jin (신수진, `sjs@kaist.ac.kr`, Ext 2713, E6-3406)
D	MW 9:00 / E11-303	Prof. Matsumura, Tomoo (`tomoomatsumura@kaist.ac.kr`, Ext 2736, E2-3210)
E	MW 13:00 / E11-303	Dr. Banerjee, Anandam (`anandam1729@kaist.ac.kr`, Ext 2763, E6-3416)
F	MW 13:00 / E11-301	Prof. Oum, Sang-il (엄상일, `sangil@kaist.edu`, Ext 2728, E6-3403)
G	MW 13:00 / E11-401	Prof. Morabito, Filippo (`morabito@kaist.ac.kr`, Ext 7301, E6-4410)
H	MW 13:00 / E11-403	Prof. Schweizer, Andreas (`schweizer@kaist.ac.kr`, Ext 2793, E2-2209)

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

Head Teaching Assistant. Sim, Gyuseok (심규석, `sim0622@kaist.ac.kr`, Ext 2788, E6-3425)

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
Mar. 5	3.8, 7.1	Apr. 28, 30	10.7
Mar. 10, 12	3.9, 7.2	May 7	10.8
Mar. 17, 19	7.3–7.4	May 12, 14	10.9-10.10
Mar. 24, 26	8.1–8.6	May 19, 21	*1.1–1.3*
Mar. 31, Apr. 2	8.7, 10.1	May 26, 28	*1.4–1.6*
Apr. 7, 9	10.2–10.5	June 2	*1.7*
Apr. 14, 16	10.6, Review	June 9, 11	*1.7, 2.1*, Review
Apr. 22	Midterm Exam	June 17	Final Exam

No classes on Mar. 3 (Martriculation ceremony), May 5 (Children's day), June 4 (Election).

Exams. There are two exams, midterm (April 22) and final (June 17). Detail about the exams will be announced at the course web site.

Homework. Exercise problems selected as homework will be posted at the course web site together with their solutions. You do not have to hand in your homework and instead you practice with them to prepare for quizzes and exams. Every week, a video solving some of the homework problems will be posted at the course website.

Recitation. The recitation consists of three kinds of activities; Quiz, 1-to-1 Help Desk, and Problem Session.

- **Quiz** (March 14, 28, April 11, May 2, 16, 30.) There will be about 45 minute quiz every other week. Each student must attend. There are two time slots, 10am and 1pm on Friday. From March 5 till 6PM of March 10, **students must choose one of time slots** on a first-come-first-served basis by using the course website.

- **Help Desk** (March 21, April 4, 18, May 9, 23, June 13.) On the week following quiz, students can participate the help desk program. In this program, a student reserves 20 minutes in one of 9 time slots (10am-11am, 12am-2pm Friday) to meet a TA 1-to-1 to get a help on quiz problems of the previous week or any other problems. *As an incentive, a student will be given a chance to recover up to 80% of lost points in one of the quiz problems of the previous week.* To participate help desks, students need to make a reservation at the course website by Thursday noon.

- **Problem Session** (March 21, April 4, 18, May 9, 23, June 13.) On the week following quiz, a general 1-hour problem session will be held based on demand. In the problem session, the TA may explain various problem solving strategies, solutions of homework problems, solutions of previous exam problems, or any other topics helpful for students. Students who wish to participate should make a reservation. It is not required to attend and there is no extra incentive. It is planned to have two time slots (10am-11am, 1pm-2pm on Friday).

Attendance and Attitude. In each class, your attendance and attitude will be checked. You must follow the instruction given by the TA in order to confirm your attendance at the course website. 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.

A bad manner during lecture such as leaving the class early, or using mobile phone or laptop may cost an attendance penalty, equivalent to one lateness to one absence.

Course Grade. Midterm Exam (40%), Final Exam (40%), Quizzes (20%). The course grade can be lowered by one step due to your *attendance penalty as* explained above. Concerning grades for repeaters, please refer to the university regulation.

There will be neither makeup exams nor makeup quizzes. 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. Five best quiz scores out of six quizzes will be counted. If you do not take the final exam without reason or miss more than 1/3 of classes, you automatically fail the course.

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