2023 Spring Semester Class Plan

Date of first registration	2023-01-08 19:38:57		date of first modification	2023-02-20 15:30:38
subject name	differential calculus		School No. - Class No. STA1002-02	
Credits/Lecture Hours/ Experiment, Practice, Practical Hours	3/Tuesday 1, Thursday 2,3		Department opened	Applied Statistics Major
Class time	Tue 1, Thu 2,3		lecture room	Top B110
test date	midterm exam		final exam	
Class language			Evaluation type	absolute evaluation

Professor in charge	name	Youngja Park	contact	phone call	
	belong	Department of Applied Statistics		mail	ojpark@yonsei.ac.kr
	Lab			interview information	

Assistant information	name		contact	phone call	

Course outline A brief introduction to the course	Statistics is closely related to mathematics. Although statistics is a practical science, it is based on mathematics, so mathematics is an essential course for those who study statistics. As mathematics necessary for the field of applied statistics, it helps to understand the concepts of differentiation and integration of single-variable and multi-variable functions, and limit concepts of sequences and series.

class goal	1.	korean	Understand the differentiation of single-variable functions and solve problems using the differential method.	20%
		english		
	2.	korean	Understand the integration of single-variable functions and solve problems using the integration method.	20%
		english		
	3.	korean	Understand the series expansion of a function and use it to solve problems.	20%
		english		
	4.	korean	Understand and apply differential integration of multivariate functions to solve problems.	40%
		english		
	5.	korean		
		english		

Core competency/major competency	* Set in 25% units so that the total value is 100%, and one main core competency/major competency must be 50% or more.			
	logical thinking ability	50% problem solving	30% convergent thinking	20%
Subcompetence/Unit of Learning 1				
Subcompetence/Unit of Learning 2				
Sub-Competencies/Units of Learning 3				
Key core competency (culture) / major competency (major)	Linkage between subjects and major core competencies (culture) and major competencies (major)			
Sustainable Development Goals				

Recommended average amount of learning per week	average amount of reading		Average amount of writing (based on A4)	

Teaching method (%) to be 100 without sum	lecture	Training	presentation	debate	team project
	100%	0%	0%	0%	0%

Class method 2	PBL subjects	Capstone Design CBL, Social Innovation Course Flipped Classroom Field Practice, Internship	

Grade evaluation method (%) Free entry of other information so that the total value is 100	midterm exam final exam		Quiz	personal assignment	team assignment	attendance	etc
	30%	40%	20%	0%	0%	10%	0%

Assignment/report, project guidance	Assignment name/project name and writing method	Submission Deadline	Submission type and submission method

Athlete's recommended course	high school	Online lecture site LearnUs	

Classification of textbooks	textbook name	author	publisher	Year of publication	ISBN
main material	Essential calculus : early transcendentals	Stewart, James	Brooks/Cole, Cengage Learning	2013	9781133492573
References	Differential and integral calculus. 1, Calculus of single-variable functions	Stewart, James Education Company		2014	9791125100027
Reference	differential calculus. 2, multivariate functions and vector analysis	Stewart, James Friends Club		2014	9791125100027

Key learner notes	Applied Statistics and Commerce Department students are the main learning subjects. students interested in mathematics. College of science (including medical school and dental school) and engineering students should refrain from taking courses if possible. (Highest grade A0, recommended to take Calculus and Vector Analysis 1,2 or Engineering Mathematics 1,2) Each study of trigonometric and exponential logarithmic functions before class begins. Midterm: 8th week, Thursday, April 20th, 7:00-8:50pm scheduled, Chapters 1-6, face-to-face paper test Final exam: Week 16, Thursday, June 15th, 7:00-8:50pm, 8 Chapter 11, Chapter 12 Face-to-face paper-and-delivered test Please take classes so that the midterm and final exam schedules do not overlap with other classes or tests. According to the department's bylaws, A+ within the top 20%, A0 within the top 30%, A- within the top 40%, B+ within the top 60%, B0 within the top 70%, B- within the top 80% +final 80 = 200 points 2 points per hour of absence, 1 point per tardy session Online Quiz No. 12 (excluding Weeks 1, 8, 9, and 16): For details, learnus notice after the start of the semester Grades are combined for 02 and 03 classes. The test is written in Korean. (Important terms are written in English) Upgrading/downgrading grades without justifiable grounds is not allowed F Subjects: 1. Lack of attendance (more than 1/3 of absences), 2. Cheating (attendance, test) detected, 3. Failure to complete the final term without a valid reason, 4. Lack of grades, less than 60 points out of a total of 200 points, 5. Under C- for graduate students (a C- or higher is evaluated the same as undergraduate students)
Attachments	

weekly plan

parking	period	Class contents and learning activities	note
1 week	2023-03-02 2023-03-08	Function definition and limit	(3.2.) Start of class (3.6. - 3.8.) Confirmation and change of course registration
2 weeks	2023-03-09 2023-03-15	differential	
3 weeks	2023-03-16 2023-03-22	Inverse Functions and Differential Methods of Inverse Functions	
4 weeks	2023-03-23 2023-03-29	Use of Differentiation	
5 weeks	2023-03-30 2023-04-05	integral	
6 weeks	2023-04-06 2023-04-12	integral technique	(4.7.) Semester 1/3 line
7 weeks	2023-04-13 2023-04-19	rating	
8 weeks	2023-04-20 2023-04-26	Midterm exam (Scheduled for Thursday, April 20th from 7:00-8:50 pm, Chapters 1-6)	(4.20. - 4.26.) Interim exam
9 weeks	2023-04-27 2023-05-03	Power series and series expansion	(4.27. - 5.1.) Course withdrawal (5.2. - 5.4.) Application for S/U evaluation
10 weeks	2023-05-04 2023-05-10	Differentiation of a Multivariate Function	(5.2. - 5.4.) Application for S/U evaluation (5.5.) Children's Day 05.05 Children's Day
11 weeks	2023-05-11 2023-05-17	Differentiation of a Multivariate Function	(5.15.) Semester 2/3 line

12 weeks	2023-05-18 2023-05-24	Differentiation of a Multivariate Function	
13 weeks	2023-05-25 2023-05-31	Integral of a Multivariate Function	(5.27.) Buddha's Birthday 05.27 Buddha's Birthday
14 weeks	2023-06-01 2023-06-07	Integral of a Multivariate Function	(6.6.) Memorial Day 06.06 Memorial Day
15 weeks	2023-06-08 2023-06-14	Self-study and final exams (reinforcing the suspension of classes on Memorial Day)	(6.8. - 6.14.) Self-study
16 weeks	2023-06-15 2023-06-21	Self-study and final exams (scheduled for Thursday, June 15, 7:00-8:50 pm, Chapter 8, Chapter 11, Chapter 12)	(6.15. - 6.21.) Final exam

Compulsory

Attendance • Students who miss more than 1/3 of the actual class hours will receive an F or NP regardless of the test result. • Courses that do not have midterm

and final exams are taught during the applicable period. Support for students with disabilities • You can request teaching and learning support for attendance,

lectures, assignments, and tests through an interview with the professor in charge before the semester starts. class participation, and

Examples of possible support by type of disability are as follows: (However, the actual application content

may vary at the discretion of the professor in consideration of the essential characteristics of the class.)

[Lessons]

- Blind handicap: Teaching materials production (digital, braille, enlarged textbooks, etc.), ghostwriting support students allowed - Physical

disability: teaching materials production (digital textbooks), ghostwriting and class assistants students allowed to audit, assigned seats - Hearing impaired :

Auditing of students with ghostwriting support/personnel supporting text interpretation (stenographers, sign language interpreters), and recording of lectures allowed -

Intellectual disability/autistic disorder: Allow students with ghostwriting support and audition of class mentors in consideration of the characteristics and degree of their

disabilities [Assignments and exams] - Visual Disability/Physical Disability/Hearing Impairment: Reasonable extension of assignment submission deadline, adjustment of

assignment and submission method, extension of test time, adjustment of test questions and response method, provision of separate location, linkage with students for writing support - Intellectual disability/autism disorder: reasonable

level Extension of assignment submission deadline, adjustment of assignment and submission method Safety Precautions • Science and engineering majors and life science majors, etc. Candidates for lab environment safety education

must complete the online education before the start of the semester and submit the certificate of completion in the first class.

and those who do not submit are not allowed to participate in the

class. • Before physical education classes, warm-up exercises must be performed, and students with cardiovascular diseases or chronic respiratory diseases can exercise after consulting with a doctor in advance.

Wealth must be checked.