

Tamkang University Academic Year 109, 2nd Semester Course Syllabus

Course Title	CALCULUS	Instructor	HSIAO-FAN LIU
Course Class	TLWXB1A BACHELOR'S PROGRAM IN GLOBAL FINANCIAL MANAGEMENT (ENGLISH-TAUGHT PROGRAM), 1A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ 2nd Semester
Relevance to SDGs	SDG4 Quality education		
Departmental Aim of Education			
<ul style="list-style-type: none"> I. Acquisition of professional knowledge. II. Learning effective self-planning. III. Theoretical application of practical matters. IV. Interpersonal communication and teamwork. V. Analysis of problems and recommendations. VI. Awareness of Ethics as a global citizen. 			
Subject Departmental core competences			
<ul style="list-style-type: none"> A. Students can demonstrate that they have program basic knowledge of business and management.(ratio:50.00) D. Students can demonstrate that they are critical thinkers.(ratio:50.00) 			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> 2. Information literacy. (ratio:20.00) 5. Independent thinking. (ratio:80.00) 			

Course Introduction	This course introduces Calculus with applications in business, economics, and the social and life sciences. We will focus on integrations, applications of integrations and functions of several variables.
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The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of the course's veracity, conception, procedures, outcomes, etc.

II. Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal, morals, attitude, conviction, values, etc.

III. Psychomotor: Emphasis upon the study of the course's physical activity and technical manipulation.

No.	Teaching Objectives	objective methods
1	Students are expected to understand the concepts and theory of integrations, and functions of several variables, and to solve practical problems with these techniques.	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	AD	25	Lecture, Discussion	Testing, Discussion(including classroom and online), Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	110/02/22 ~ 110/02/28	Announcement of Grading Policy; Review on Derivatives, exponential and logarithmic functions	
2	110/03/01 ~ 110/03/07	5.1 Indefinite Integration and Differential Equations	
3	110/03/08 ~ 110/03/14	5.2 Integration by Substitution	

4	110/03/15 ~ 110/03/21	5.3 The Definite Integral and the Fundamental Theorem of Calculus	
5	110/03/22 ~ 110/03/28	5.4 Applying Definite Integration: Distribution of Wealth and Average Value	
6	110/03/29 ~ 110/04/04	6.1 Integration by Parts; Integral Tables	
7	110/04/05 ~ 110/04/11	6.2 Numerical Integration	
8	110/04/12 ~ 110/04/18	6.3 Improper Integrals	
9	110/04/19 ~ 110/04/25	6.4 Introduction to Continuous Probability; Review	
10	110/04/26 ~ 110/05/02	Midterm Exam Week	
11	110/05/03 ~ 110/05/09	7.1 Functions of Several Variables	
12	110/05/10 ~ 110/05/16	7.2 Partial Derivatives	
13	110/05/17 ~ 110/05/23	7.3 Optimizing Functions of Two Variables	
14	110/05/24 ~ 110/05/30	7.4 The Method of Least-Squares	
15	110/05/31 ~ 110/06/06	7.5 Constrained Optimization: The Method of Lagrange Multipliers	
16	110/06/07 ~ 110/06/13	7.6 Double Integrals (I)	
17	110/06/14 ~ 110/06/20	7.6 Double Integrals (II); Review	
18	110/06/21 ~ 110/06/27	Final Exam Week	
Requirement	<p>1. The grading policy will be announced in the first class, so should you not miss the first day. Otherwise, you may ask other students for the related information.</p> <p>2. No make-up quizzes and exams.</p> <p>3. No cheating. You will receive 0 if you get caught.</p>		
Teaching Facility	(None)		
Textbooks and Teaching Materials	Calculus for Business, Economics, and the Social and Life Sciences, Brief edition by Hoffmann, Bradley, Sobecki, Price, 11th edition		
References			

Number of Assignment(s)	(Filled in by assignment instructor only)
Grading Policy	<p>◆ Attendance : % ◆ Mark of Usual : 10.0 % ◆ Midterm Exam : 30.0 %</p> <p>◆ Final Exam : 40.0 %</p> <p>◆ Other (Quizzes) : 20.0 %</p>
Note	<p>This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php.</p> <p>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</p>