

Tamkang University Academic Year 113, 2nd Semester Course Syllabus

Course Title	CALCULUS	Instructor	CHEN, HUNG-YIN
Course Class	TLAXB1P DEPARTMENT OF ACCOUNTING, 1P	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ 2nd Semester ◆ 2 Credits
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:40.00) B. Students can demonstrate that they have capability in professional knowledge expression. (ratio:10.00) C. Students can demonstrate that they have capability in using information technology. (ratio:10.00) D. Students can demonstrate that they are critical thinkers.(ratio:40.00) 			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> 1. A global perspective. (ratio:5.00) 2. Information literacy. (ratio:20.00) 3. A vision for the future. (ratio:10.00) 4. Moral integrity. (ratio:15.00) 5. Independent thinking. (ratio:30.00) 6. A cheerful attitude and healthy lifestyle. (ratio:5.00) 			

7. A spirit of teamwork and dedication. (ratio:10.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction

This course delves into various aspects of calculus, including integration, additional topics in integration, and multivariable calculus, providing students with a comprehensive understanding of this foundational mathematical discipline.

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	Understand the fundamental concepts of integration and apply them to real-world problems. Master additional topics in integration. Proficiently handle multivariable functions, computing partial derivatives, total differentials, and multiple integrals. Apply acquired knowledge to solve practical scientific, engineering, and mathematical problems.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCD	12345678	Lecture, Practicum	Testing, Practicum

Course Schedule

Week	Date	Course Contents	Note
1	114/02/17 ~ 114/02/23	5.1 Indefinite Integrals and Differential Equations	
2	114/02/24 ~ 114/03/02	5.2 Integration by Substitution	

3	114/03/03 ~ 114/03/09	5.2 Integration by Substitution	
4	114/03/10 ~ 114/03/16	5.3 The Definite Integral and the Fundamental Theorem of Calculus	
5	114/03/17 ~ 114/03/23	5.3 The Definite Integral and the Fundamental Theorem of Calculus	
6	114/03/24 ~ 114/03/30	5.4 Applying Definite Integration: Distribution of Wealth and Average Value	
7	114/03/31 ~ 114/04/06	Teaching Administration Observation	
8	114/04/07 ~ 114/04/13	5.5 Additional Applications of Integration to Business and Economics	
9	114/04/14 ~ 114/04/20	Midterm Exam/Midterm Assessment Week (teachers can adjust the week as needed)	
10	114/04/21 ~ 114/04/27	6.1 Integration by Parts	
11	114/04/28 ~ 114/05/04	6.1 Integration by Parts	
12	114/05/05 ~ 114/05/11	6.3 Improper Integrals	
13	114/05/12 ~ 114/05/18	6.4 Introduction to Continuous Probability	
14	114/05/19 ~ 114/05/25	7.1 Functions of Several Variables	
15	114/05/26 ~ 114/06/01	7.2 Partial Derivatives	
16	114/06/02 ~ 114/06/08	7.3 Optimizing Functions of Two Variables	
17	114/06/09 ~ 114/06/15	Final Exam/Final Assessment Week (teachers can adjust the week as needed)	
18	114/06/16 ~ 114/06/22	Flexible Teaching Week: Generally, no in-person classes; teachers may arrange teaching activities or final assessments, among other options.	
Key capabilities		self-directed learning Problem solving	
Interdisciplinary			

Distinctive teaching	
Course Content	Logical Thinking
Requirement	<p>1. Attendance will be taken randomly. After the class ends, a supplementary attendance for tardiness (which counts as half of the attendance score) will be allowed, but no supplementary attendance will be accepted afterward. Scoring will be based on the ratio of "attendance/total roll-call count" in the iClass system.</p> <p>2. Students who miss the roll call should submit a leave request within one week and provide the leave form for record correction in the iClass system. Requests made after the deadline will not be accepted.</p> <p>3. If the total hours of absenteeism (without leave) reach one-sixth of the total class hours for the semester, the student will be disqualified from the exam (the semester grade will be calculated as zero).</p> <p>4. To ensure fairness, there is no make-up exam policy. It is mandatory to attend all exams, and any absence will result in a zero score.</p> <p>5. The grading method for senior students (or higher year students) is the same as for other grade levels.</p>
Textbooks and Teaching Materials	<p>Using teaching materials from other writers:Textbooks</p> <p>Name of teaching materials: Calculus for Business, Economics, and the Social and Life Sciences, 11th ed. Hoffmann Bradley, Sobecki Price, 東華/新月出版, ISBN : 9789869614191</p>
References	
Grading Policy	<p>◆ Attendance : 10.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 35.0 %</p> <p>◆ Final Exam : 35.0 %</p> <p>◆ Other <TA course > : 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>