Tamkang University Academic Year 111, 2nd Semester Course Syllabus

Course Title	CALCULUS	Instructor	CHIANG, CHIEH
Course Class	TLFBB1B DIVISION OF GLOBAL COMMERCE, DEPARTMENT OF INTERNATIONAL BUSINESS (ENGLISH-TAUGHT PROGRAM), 1B	Details	General CourseRequired2nd Semester
Relevance to SDGs	SDG4 Quality education		

Departmental Aim of Education

- I. Acquisition of professional knowledge.
- II. Learning effective self-planning.
- ${\rm I\hspace{-.1em}I\hspace{-.1em}I}$. 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

- 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

- 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) In the second semester, our focus will be on the integration and its applications to the real lift problems, especially in the region of business. We will also learn some techniques that enable us to find the integration of given functions Course Introduction 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. **Teaching Objectives** objective methods Nο Students shall familiar with the definition of integration and also 1 Cognitive learn techniques that enable them to find the integration of a given function. Students are also expected to be able to use integration to solve some problems arising from the business. The correspondences of teaching objectives: core competences, essential virtues, teaching methods, and assessment **Teaching Methods Core Competences Essential Virtues** Assessment No Lecture Testing, Practicum 1 ABCD 12345678 Course Schedule **Course Contents** Week Date Note

5.1 indefinite integration and differential equations

5.3 The definite integral and the fundamental theorem

5.2 Integration by Substitution

of calculus

112/02/13 ~

112/02/19

112/02/26 112/02/27 ~

112/03/05

1

3

4	112/03/06 ~ 112/03/12	5.4 Applying definite integration		
5	112/03/13 ~ 112/03/19	5.5 & 5.6 Additional applications of integration		
6	112/03/20 ~ 112/03/26	6.1 Integration by parts		
7	112/03/27 ~ 112/04/02	6.2 Numerical integration		
8	112/04/03 ~ 112/04/09	Teaching Administration Observation Period		
9	112/04/10 ~ 112/04/16	6.3 Improper integrals & 6.4 Introduction to Continuous Probability		
10	112/04/17 ~ 112/04/23	Midterm Exam Week		
11	112/04/24 ~ 112/04/30	7.1 Functions of several variables		
12	112/05/01 ~ 112/05/07	7.2 Partial derivatives		
13	112/05/08 ~ 112/05/14	7.3 Optimizing functions of two variables		
14	112/05/15 ~ 112/05/21	7.4 The methods of least-squares		
15	112/05/22 ~ 112/05/28	7.5 Constrained optimalization: The method of lagrange multipliers		
16	112/05/29 ~ 112/06/04	7.6 Double integrals		
17	112/06/05 ~ 112/06/11	7.6 Double integrals		
18	112/06/12 ~ 112/06/18	Final Exam Week		
Re	equirement			
Tea	aching Facility	(None)		
Textbooks and Teaching Materials		Calculus For Business, Economics, and the Social and Life Sciences (ISBN: 978-007-131071-0)		
F	References			
Number of Assignment(s)		(Filled in by assignment instructor only)		
Grading Policy		 ↑ Attendance:		
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