Course Title	CALCULUS	Instructor	CHIANG, CHIEH
Course Class	TLFBB1A DIVISION OF GLOBAL COMMERCE, DEPARTMENT OF INTERNATIONAL BUSINESS (ENGLISH-TAUGHT PROGRAM), 1A	Details	◆ General Course ◆ Required ◆ 1st Semester ◆ 2 Credits
Relevance to SDGs	SDG4 Quality education		

Departmental Aim of Education

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

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)

Course Introduction	This course introduces Calculus together with its applications. Topics include limits, differentiation and exponential/logarithmic Functions. Relevant applications to the areas of business, economics, and the social sciences will also be discussed.

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 of limit and continuity, as well as being familiar with computing the derivatives of elementary functions such as polynomials and exponential/logarithmic functions. Also, they are expected to use these techniques to solve practical problem occuring in the relevant areas.	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

Course Schedule

Week	Date	Course Contents	Note
1	114/09/15 ~ 114/09/21	Limit and Continuity	
2	114/09/22 ~ 114/09/28	Rates of Change, Slopes, and Derivatives	

3	114/09/29～114/10/05	Some Differentiation Formula	
4	114/10/06～114/10/12	The Product and Quotient Rule	
5	114/10/13～114/10/19	Higher-Order Derivatives	
6	114/10/20～114/10/26	The Chain Rule and the Generalized Power Rule. Nondifferentiable Function	
7	114/10/27～114/11/02	Graphing Using the First Derivative	
8	114/11/03～114/11/09	Graphing Using the First and Second Derivatives	
9	114/11/10～114/11/16	Midterm Exam Week	
10	114/11/17～114/11/23	Optimization	
11	114/11/24～114/11/30	Implicit Differentiation and Related Rated	
12	114/12/01～114/12/07	Differentials,Approximations, Marginal Ana	
13	114/12/08～114/12/14	Exponential Functions, Logarithmic Functions	
14	114/12/15～114/12/21	Differentiation of Logarithmic and Exponential Functions	
15	114/12/22～114/12/28	Two Applications to Economics	
16	114/12/29～115/01/04	Final Week of Diverse Assessments	
17	115/01/05～115/01/11	Final Week of Diverse Assessments/Flexible Teaching Week for Teachers	
18	115/01/12～115/01/18	Flexible Teaching Week for Teachers	
Key capabilities	Information Technology Problem solving		
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)		
Distinctive teaching			

Course Content	Logical Thinking
Requirement	The course will spend 100 mintues and we will have another 50 minutes for a practical class.
Textbooks and Teaching Materials	Self-made teaching materials:Textbooks Name of teaching materials: Brief Applied Calculus (Asia Edition) – 7th edition (ISBN: 9789815077353) Using teaching materials from other writers:Textbooks Name of teaching materials: Brief Applied Calculus (Asia Edition) – 7th edition (ISBN: 9789815077353)
References	
Grading Policy	◆ Attendance： ％ ◆ Mark of Usual： ％ ◆ Midterm Exam： 40.0 ％ ◆ Final Exam： 40.0 ％ ◆ Other〈practical class〉：20.0 ％
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at https://web2.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. ※"Adhere to the concept of intellectual property rights" and "Do not illegally photocopy, download, or distribute." Using original textbooks is advised. It is a crime to improperly photocopy others' publications.