

## Tamkang University Academic Year 112, 2nd Semester Course Syllabus

Course Title	CALCULUS	Instructor	CHIANG, CHIEH
Course Class	TLFBB1A DIVISION OF GLOBAL COMMERCE, DEPARTMENT OF INTERNATIONAL BUSINESS (ENGLISH-TAUGHT PROGRAM), 1A	Details	<ul style="list-style-type: none"> <li>◆ General Course</li> <li>◆ Required</li> <li>◆ 2nd Semester</li> </ul>
Relevance to SDGs	SDG4 Quality education		
Departmental Aim of Education			
<ul style="list-style-type: none"> <li>I. Acquisition of professional knowledge.</li> <li>II. Learning effective self-planning.</li> <li>III. Theoretical application of practical matters.</li> <li>IV. Interpersonal communication and teamwork.</li> <li>V. Analysis of problems and recommendations.</li> <li>VI. Awareness of Ethics as a global citizen.</li> </ul>			
Subject Departmental core competences			
<ul style="list-style-type: none"> <li>A. Students can demonstrate that they have program basic knowledge of business and management.(ratio:40.00)</li> <li>B. Students can demonstrate that they have capability in professional knowledge expression. (ratio:10.00)</li> <li>C. Students can demonstrate that they have capability in using information technology. (ratio:10.00)</li> <li>D. Students can demonstrate that they are critical thinkers.(ratio:40.00)</li> </ul>			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> <li>1. A global perspective. (ratio:5.00)</li> <li>2. Information literacy. (ratio:20.00)</li> <li>3. A vision for the future. (ratio:10.00)</li> <li>4. Moral integrity. (ratio:15.00)</li> <li>5. Independent thinking. (ratio:30.00)</li> <li>6. A cheerful attitude and healthy lifestyle. (ratio:5.00)</li> </ul>			

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

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

**Course Introduction**

In the second semester, we will focus on the integration and its applications to the real life problems, especially in the region of business. We will also learn some techniques that enable us to find the integration of given functions.

**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 shall familiar with the definition of integration and also 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.	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	Testing

**Course Schedule**

Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	5.1 Antiderivatives and Indefinite integrals.	
2	113/02/26 ~ 113/03/03	5.2 Integration by Substitution and General Power Rule. 5.3 Exponential and Logarithmic Integrals.	
3	113/03/04 ~ 113/03/10	5.4 Area and Fundamental Theorem of Calculus.	

4	113/03/11 ~ 113/03/17	5.5 The Area of a Region Bounded by Two Graphs.	
5	113/03/18 ~ 113/03/24	5.6 The Definite Integral as the Limit of a Sum.	
6	113/03/25 ~ 113/03/31	6.1 Integration by Parts and Present Value. 6.2 Integration Table.	
7	113/04/01 ~ 113/04/07	6.3 Numerical Integration.	
8	113/04/08 ~ 113/04/14	6.4 Improper Integrals.	
9	113/04/15 ~ 113/04/21	Midterm Exam Week	
10	113/04/22 ~ 113/04/28	7.1 The 3-dim. coordinate system; 7.2 Surfaces in Space	
11	113/04/29 ~ 113/05/05	7.3 Functions of Several Variables	
12	113/05/06 ~ 113/05/12	7.4 Partial Derivatives	
13	113/05/13 ~ 113/05/19	7.5 Extrema of Functions of Two Variables	
14	113/05/20 ~ 113/05/26	7.6 Lagrange Multiplier	
15	113/05/27 ~ 113/06/02	7.8 Double Integrals and Area in the Plane	
16	113/06/03 ~ 113/06/09	7.9 Applications of Double Integrals	
17	113/06/10 ~ 113/06/16	Final Exam Week (Date:113/6/11-113/6/17)	
18	113/06/17 ~ 113/06/23	Flex week, learning activities should be arranged.	
Key capabilities			
Interdisciplinary			
Distinctive teaching			
Course Content		Intellectual Property (learning intellectual property)	

Requirement	
Textbooks and Teaching Materials	Using teaching materials from other writers:Textbooks
References	
Grading Policy	<p>◆ Attendance :            %    ◆ Mark of Usual : 20.0 %    ◆ Midterm Exam : 40.0 %</p> <p>◆ Final Exam :    40.0 %</p> <p>◆ Other &lt;   &gt; :            %</p>
Note	<p>This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> .</p> <p><b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</b></p>