

成績稽核

教科書(尊重智慧財產權，請用正版教科書，勿非法影印他人著作)				
書名	作者	譯者	出版社	出版年
開闢系所	生物產業科技學系	無參考教科書	臺灣師大出版社	入学口頭部1牛1班
任課教師	吳建一	專兼任別	專任	

參考教材及專業期刊導讀(尊重智慧財產權，請用正版教科書，勿非法影印他人著作)

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課程簡介

上課進度		分配時數(%)				
週次	教學內容	講授	示範	習作	實驗	其他

## 1 7.2 Exponential Functions and Their Derivatives ;7.3

課程大綱

課程大綱 Logarithmic Functions; 7.2 Exponential Functions and Their Derivatives ; 7.3

第二學期的微積分課程，學生將會學習多變數微函數，多重積分，三角代換法，函數的極值，函數的凹性，反曲點，7. 極值的應用，羅必達清則，曲線下的面積，旋轉曲之體積以及偏導數。

## Logarithmic Functions:

2 基本能 力 7.2 Exponential Functions and Their Derivatives :7.3 100

微積分/Logarithmic Functions;

3 7.4\* General Logarithmic and Exponential Functions: 7.8

100

## 7.4 General Logarithmic and Exponential Functions; 7.5 Indeterminate Forms and L'Hopital's Rule

#### 系所基本素養及核心能力之關連

Indeterminate Forms and L'Hopital's Rule  
4.8.1 Integration by Parts; 8.2 Trigonometric Integrals

教學計畫表	4 8.1 Integration by Parts; 8.2 Trigonometric Integrals	5 系所核心能力 權重(%) 檢核能力指標(績效指標)	教學策略	評量方法及配分	核心能力	期末學習
3 Substitution	【A】	7.6 Inverse Trigonometric Functions; 8.3 Trigonometric	標)	權重	學習成績	成績

## 5      Substitution 7.6 Inverse Trigonometric Functions; 8.3 Trigonometric Substitution

【B】 【C-B<sup>\*</sup>Λ

1

Substitution  
6 無此教學  
8.4 Integration of Rational Functions by Partial Fractions ; 8.8  
計畫表資  
8.5 Improper Integrals

6 計算 Improper Integrals ; 8.4 Integration of Rational Functions by Partial Fractions ; 8.8 Improper Integrals

## Improper Integrals

7 8.8 Improper Integrals

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9 15.1 Eu

## 9 15.1 Functions of Several Variables, 15.2 Limits and Continuity

## Continuity

Continuity

10	15.3 Partial Derivatives ; 3.9 Linear Approximations and Differentials	
10	15.3 Partial Derivatives ; 3.9 Linear Approximations and Differentials	
11	15.4 Tangent Planes and Linear Approximations; 15.5 The Chain Rule	
11	15.4 Tangent Planes and Linear Approximations; 15.5 The Chain Rule	
12	15.6 Directional Derivatives and Gradient Vectors ; 15.7 Maximum and Minimum Values	
12	15.6 Directional Derivatives and Gradient Vectors ; 15.7 Maximum and Minimum Values	
13	15.7 Maximum and Minimum Values; 15.8 Lagrange Multipliers ; 16.1 Double Integrals over Rectangles	
13	15.7 Maximum and Minimum Values; 15.8 Lagrange Multipliers ; 16.1 Double Integrals over Rectangles	
14	16.2 Iterated Integrals; 16.9 Change of Variables in Multiple Integrals	
14	16.2 Iterated Integrals; 16.9 Change of Variables in Multiple Integrals	
15	12.1 Sequences ; 12.2 Infinite series(Convergence & Divergence)	
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16	12.6 Absolute Convergence and the Ratio and Root Tests; 12.10 Taylor and Maclaurin Series	100
16	12.6 Absolute Convergence and the Ratio and Root Tests; 12.10 Taylor and Maclaurin Series	100
17	12.10 Taylor and Maclaurin Series	100
17	12.10 Taylor and Maclaurin Series	100
18	期末考週	0
18	期末考週	0

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