

成績稽核

禁止影印

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
開課系所	六向教學中心	無參考教材	大學四部四年一班	入学口頭部4年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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無參考教材及專業期刊導讀				

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	Introduction					
2	2.1 The Tangent and Velocity Problems; 2.2 The Limit of a Function					
3	2.3 Calculating Limits Using the Limit Laws; 2.5 Continuity;					
4	3.1 Derivatives and Rates of Change					
5	3.2 The Derivative as a Function; 3.3 Differentiation Formulas; 3.4 Derivatives of Trigonometric Functions					
6	3.5 The Chain Rule; 3.6 Implicit Differentiation					
7	3.8 Linear Approximations and Differentials; 4.1 Maximum and Minimum Values; 4.2 The Mean Value Theorem					
8	4.3 Derivatives and the shape of a Graph; 4.4 Limits at Infinity; Horizontal Asymptotes					
9	4.5 Summary of Curve Sketching; 4.7 Optimization Problems					
10	【A】Midterm Examination					
11	【B】Remedial Teaching for Midterm Examination; 4.9 Antiderivatives; 5.1 Areas and Distances					
12	【C=B*A】無此教學計畫表資料					
13	5.4 Indefinite Integrals; 5.5 The Substitution Rule					
14	6.1 Areas Between Curves; 6.2 Volumes					
15	6.3 Volumes by Cylindrical Shells; 6.5 Average Value of a Function					
16	7.1 Inverse Functions; 7.2* The Natural Logarithmic Function					
17	7.3* The Natural Exponential Function; 7.4* Logarithmic and Exponential Functions					
18	7.6 Inverse Trigonometric Functions; 7.8 Indeterminate Forms and L'Hospital's Rule					
19	Final Examination					

課程大綱

2.1 The Tangent and Velocity Problems; 2.2 The Limit of a Function

2.3 Calculating Limits Using the Limit Laws; 2.5 Continuity;

基本能力或先修課程

3.1 Derivatives and Rates of Change
3.2 The Derivative as a Function; 3.3 Differentiation Formulas; 3.4 Derivatives of Trigonometric Functions

3.5 The Chain Rule; 3.6 Implicit Differentiation

3.8 Linear Approximations and Differentials; 4.1 Maximum and Minimum Values; 4.2 The Mean Value Theorem

4.3 Derivatives and the shape of a Graph; 4.4 Limits at Infinity; Horizontal Asymptotes

4.5 Summary of Curve Sketching; 4.7 Optimization Problems

【A】Midterm Examination

【B】Remedial Teaching for Midterm Examination; 4.9 Antiderivatives; 5.1 Areas and Distances

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7.1 Inverse Functions; 7.2* The Natural Logarithmic Function

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Final Examination

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