

工業管理學系微積分課程介紹

課程名稱：微積分（工管系大一必修）

課程時間：星期二 10:10-12:00；星期四 08:10-10:00

教室：61104（工管系）

授課教師：陳若淳

辦公室：數學系館 405

Email：rchen@mail.ncku.edu.tw

電話：2757575-65157

預備知識：高中數學。

指定教科書：“*Calculus: An Applied Approach*” (sixth edition) by Ron Larson and Bruce H. Edwards（歐亞書局代理）。

成績計算方式：三次期中考各佔 20%，一次期末考佔 30%，平時成績佔 10%。

考時間與範圍：

第一次期中考	10 月 23 日	§0.1-§2.8 (100%)
第二次期中考	11 月 20 日	§0.1-§2.8 (30%) §3.1-§3.8 (70%)
第三次期中考	12 月 18 日	§3.1-§3.8 (30%) §4.1-§4.6 (70%)
期末考	按照學校規定	§0.1-§4.6 (30%) §5.1-§5.7 (70%)

課程內容：這是一個學年介紹應用微積分的課程。主要是針對管理學院／及經濟系的學生，我們不會特別強調定理的證明，而是注重實際例子的應用。主要內容請詳見指定教材的目錄。上學期我們預定至少教授指定教材第一章到第五章，也就是單變數微積分的部份。

上課方式：在每星期的四堂課當中，其中三堂將以講授課程內容為主，剩下的一堂課將作為習題的演練以或小考。在習題演練那一堂課，出席的狀況將被列為平時成績的參考因素之一。

預定的進度如下：

第一週 (9/14-9/20)	0.1, 0.2, 0.3, 0.4
第二週 (9/21-9/27)	0.5, 1.1, 1.2, 1.3, 1.4
第三週 (9/28-10/4)	1.5, 1.6, 2.1
第四週 (10/5-10/11))	2.2, 2.3, 2.4

第五週 (10/12-10/18)	2.5, 2.6, 2.7
第六週 (10/19-10/25)	2.8, 期中考 (預定 10 月 23 日)
第七週 (10/26-11/1)	3.1, 3.2, 3.3
第八週 (11/2-11/8)	3.4, 3.5
第九週 (11/9-11/15)	3.6, 3.7
第十週 (11/16-11/22)	3.8, 期中考 (預定 11 月 20 日)
第十一週 (11/23-11/29)	4.1, 4.2, 4.3
第十二週 (11/20-12/6)	4.4, 4.5
第十三週 (12/7-12/13)	4.6, 5.1
第十四週 (12/14-12/20)	5.2, 期中考 (預定 12 月 18 日)
第十五週 (12/21-12/27)	5.3, 5.4
第十六週 (12/28-1/3)	5.5, 5.6
第十七週 (1/3-1/10)	5.7

習題建議：

§0.1: 1, 5, 7, 10, 11, 13, 15, 21, 25, 27, 29, 31, 33, 35

§0.2: 1, 3, 5, 11, 13, 19, 23, 27, 31, 33, 37, 39, 41, 43, 45, 48

§0.3: 1, 5, 9, 13, 17, 21, 25, 29, 33, 35, 37, 39, 41, 47, 51, 53, 57, 58

§0.4: 1, 5, 11, 17, 23, 31, 33, 41, 45, 49, 51, 55, 57, 61, 67, 69, 71, 72

§0.5: 1, 5, 11, 19, 23, 27, 35, 43, 47, 49, 50

§1.1: 1, 7, 13, 15, 19, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43

§1.2: 1, 5, 7, 11, 13, 19, 21, 25, 29, 35, 39, 43, 47, 51, 55, 61, 63, 65, 69, 70, 73, 74

§1.3: 1, 5, 9, 15, 17, 21, 25, 33, 35, 41, 47, 53, 57, 61, 79, 81, 82, 83, 85, 88, 89, 91

§1.4: 1, 5, 9, 13, 15, 19, 23, 27, 29, 33, 39, 41, 45, 49, 55, 63, 65, 66, 69, 70, 73, 75

§1.5: 1, 5, 9, 11, 13, 15, 17, 23, 33, 35, 37, 43, 51, 53, 63, 65, 66

§1.6: 1, 3, 5, 7,, 11, 15, 19, 23, 27, 29, 31, 35, 41, 43, 49, 51, 55, 56, 59, 61, 63

§2.1: 3, 5, 11, 13, 14, 17, 23, 26, 29, 33, 35, 37, 41, 43, 45, 51, 55, 66, 67, 68, 69

§2.2: 1, 3, 7, 9, 11, 17, 21, 27, 31, 33, 37, 41, 45, 47, 51, 53, 55, 57, 58, 59, 61, 65, 66

§2.3: 1, 3, 7, 11, 12, 15, 17, 19, 23, 27, 31, 33, 35, 37, 39, 43, 45, 49

§2.4: 1, 5, 9, 11, 15, 21, 23, 27, 33, 37, 39, 45, 51, 55, 57, 59, 63, 64, 65

§2.5: 1, 7, 9, 11, 13, 17, 23, 33, 39, 43, 51, 57, 59, 63, 67, 69, 71, 73, 74

§2.6: 1, 7, 13, 15, 19, 21, 25, 27, 31, 33, 37, 39, 41, 43, 45, 49, 51, 53, 55, 57

§2.7: 1, 3, 9, 13, 15, 19, 23, 25, 27, 29, 31, 37, 43, 44

§2.8: 1, 5, 7, 9, 11, 13, 17, 19, 21, 24

§3.1: 1, 3, 7, 9, 15, 27, 29, 33, 36, 37, 39, 40

§3.2: 1, 3, 5, 9, 13, 19, 23, 27, 33, 37, 39, 41, 43, 46, 47, 48

§3.3: 1, 3, 6, 9, 13, 23, 27, 31, 37, 45, 47, 49, 53, 55, 57, 61, 64, 65

§3.4: 1, 5, 7, 11, 14, 15, 17, 19, 21, 23, 27, 31, 35

§3.5: 1, 5, 9, 13, 15, 17, 19, 23, 25, 33, 35, 37, 39, 41, 42

§3.6: 1, 3, 7, 9, 15, 21, 27, 33, 35, 39, 43, 53, 57, 59, 61, 63, 64

§3.7: 1, 5, 13, 17, 21, 27, 31, 37, 43, 45, 46, 49, 51, 53, 55

§3.8: 1, 3, 7, 11, 13, 17, 19, 23, 25, 29, 31, 33, 37, 39, 40

§4.1: 1, 3, 5, 7, 11, 15, 19, 21, 25, 29, 33, 35, 37, 39

§4.2: 1, 3, 5, 11, 13, 16, 17, 19, 23, 27, 31, 35, 39, 41, 45, 47, 49, 51, 52, 53

§4.3: 1, 3, 7, 11, 15, 19, 21, 25, 27, 31, 33, 37, 39, 41, 43, 44, 47

§4.4: 1, 3, 7, 11, 13, 19, 23, 27, 31, 37, 39, 41, 43, 49, 51, 59, 63, 69, 71, 73, 75, 79,
80, 81, 87, 89

§4.5: 1, 3, 7, 11, 19, 23, 27, 31, 37, 47, 51, 55, 59, 61, 63, 67, 71, 77, 80, 82

§4.6: 1, 3, 7, 11, 15, 17, 19, 21, 23, 25, 31, 33, 37, 39, 41, 44, 46, 48

§5.1: 1, 3, 7, 11, 13, 17, 21, 27, 29, 33, 39, 45, 49, 51, 53, 55, 57, 59, 61, 63, 67, 71,
75, 77

§5.2: 1, 3, 5, 11, 14, 17, 23, 27, 33, 39, 45, 49, 51, 53, 55, 57, 59

§5.3: 1, 3, 5, 11, 13, 19, 23, 27, 31, 39, 35, 51, 53, 55, 57, 59, 60

§5.4: 1, 3, 5, 7, 11, 15, 21, 29, 33, 37, 41, 43, 47, 51, 55, 61, 65, 69, 71, 77, 81, 85, 87,
89, 93

§5.5: 1, 3, 9, 15, 21, 25, 29, 31, 35, 39, 43, 49, 52, 53, 55, 57, 59

§5.6: 1, 3, 5, 9, 11, 13, 19, 21, 25, 27, 31, 32, 33

§5.7: 1, 3, 9, 13, 17, 21, 25, 29, 31, 33, 34, 35