經濟系微積分課程介紹

課程名稱:微積分(經濟系大一必修)

課程時間:星期二 08:10-10:00;星期四 08:10-10:00

教室: 27204 (雲平大樓)

授課教師:潘戍衍

辦公室:數學系館 404

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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爲主,剩下的一堂課將作爲習題的演練以或小考。在習題演練那一堂課,出席的狀況將被列爲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