

Syllabus

Course: **Microbiology 微生物學 (613 49950) 3 credits**

人數限制：65 人

Instructor: Dr. Chan-Pin Lin 植微系 林長平老師

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Brief Contents	Total hr (wk no); date	Chapter	Chapter	Chapter
		T	B	W
1. Introduction: an overview of microbiology	3 (1.1-1.3); 9/19	1	1	1
2. Microscope and microscopy	2 (2.1-2.2); 9/26	3	4	2
3. Cell structure and function of microorganisms Sec. I The prokaryotic cell Sec. II The eukaryotic cell	4 (2.3-3.3); 9/26, 10/1 2.5 (4.1-4.3); 10/3	4	3,11	3-4
4. Microbial growth	3.5 (4.3-5.3); 10/3, 15	6	6	6-7
5. Controlling of microbial growth in the environment	reference	7	9	8
1st Exam (8:30-10:15 AM, Oct. 17, 2011)	1.0 (6.1); 10/17			
6. Microbial metabolism	5.8 (6.2-8.1); 10/17, 24, 31	5	5	9-11
7. Microbial taxonomy	2.2 (8.1-8.3); 10/31	10	4	17
8. The prokaryotes: domains Bacteria and Archaea	4.5 (9.1-10.2); 11/7, 14	11	11	18-22
9. The eukaryotic microbes: the fungi and the protists (supplement: helminths)	4.5 (10.2-11.3); 11/14, 21	12	12	23, 24
2nd Exam (8:30 -10:15 AM, Nov. 28, 2011)	1 (12.1); 11/28			
10. Viruses, viroids, and prions	4 (12.2-13.2); 11/28, 12/5	13	13	5, 25
11. Microbial genetics I: genes and genomes	5 (13.3-15.1); 12/5, 12, 19	8	7	12-13

12. Microbial genetics II: mutation, transfer and recombination of genetic material	2 (15.2-15.3); 12/19	8	7	14
13. Biotechnology and recombinant DNA technology	2 (16.1-16.2); 12/26	9	8	15-16
14. Infection, infectious disease, and epidemiology	reference	14-15	14	31, 36-39
15. Immunology and serology Sec. I Nonspecific defense of the host Sec. II Specific defense of the host	4 (16.3-17.3); 12/26, 1/2	16-17	15, 16	32-33
16. Diagnostic immunology	reference	18	17	35
17. Antimicrobial drugs	reference	20	10	34
Final Exam (9:10 -12:10 AM, January 9, 2012)	18th week; 1/9	公布成績：1 PM, 1/13; Rm. 218 補考：10 AM, 1/18; Rm. 218		

上課時間：每週一第 2-4 堂。9/19/2011 第一次上課，1/2/2012 課程結束。原 1/9/2012 最後一次上課，因已屆除夕恐影響後續成績考評相關作業，故先於 10/1/2011(六)上課。補充上課：10/15/2011(六)補充上課，鼓勵出席。地點：一號館 115 教室。

1st Exam 日期：訂於 10/17/2011 舉行。考試範圍: chapters 1-4

2nd Exam 日期：訂於 11/28/2011 舉行。考試範圍: chapters 6-9

期末考：訂於 1/9/2012 舉行。考試範圍: chapters 10-13, and 15

第 5, 14, 16, 17 章提供 PowerPoint 講義，請自行研讀。

Office hour: 1200-1400 every Friday or appointed via e-mail; 地點：一號館 218 室

Textbooks (either one):

1. Tortora, G. J., Funke, B. R., and Case, C. L. 2010. *Microbiology-An introduction*, 10th ed. The Benjamin Cummings, CA.
2. Willey, J. M., Sherwood, L. M., and Woolverton, C. J. 2011. *Prescott's Microbiology*, 8th ed. The McGraw-Hill Companies, New York

References:

1. Bauman, R. W. 2008. *Microbiology*, 2nd ed. The Benjamin Cummings, CA.
2. Black, J. G. 2008. *Microbiology- Principles and Explorations*, 7th ed. John Wiley & Sons, Inc.
3. Talaro, K. P., and Talaro, A. 2008. *Foundation in Microbiology: Basic Principles*, 6th ed., McGraw-Hill Higher Education, New York.

Grading: 100% = 31.3% 1st Exam + 32.4 % 2nd Exam + 36.3% Final Exam

總分: (81 分 1st Exam + 84 分 2nd Exam + 94 分 Final Exam) / 2.2; (40 or 66 題選擇、填充+3 題問答)