

yllabus for BIOL 4350, Medical Microbiology. Spring 2006.

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ffice: FN 3.104; office hours: M, W and F 10:00-10:45 or by appointment

lass meets on M and F at 12:30 in MP 2.208

ost: Bacterial Pathogenesis, a molecular approach, second edition, by Abigail A. Salyers and Dixie D. Whitt (ISBN: 55581-171-X)

| Date     | Topic   | Material   |
|----------|---|--|
| January  |   |  |
| 1        | History of medical microbiology. Bacterial growth                 | Notes  |
| 3        | Microbial evolution and bacterial diseases                        | Chapter 1.<br>Paper: ASM 2000, Vol 66, Number 9, 523-530       |
| <b>6</b> | <b>No class, MLK, Jr. day</b>                                     |  |
| 10       | Methods to study diseases   | Chapter 2  |
| 13       | Diagnosing diseases: old and newer approaches                     | Chapter 3  |
| 17       | First response by body to disease states                          | Chapter 4 and 5<br>Paper: ASM 2004, Vol 70, Number 7, 317-322  |
| 20       | Secondary response  | Chapter 6  |
| February |   |  |
| 3        | Paper discussion and review                                       |  |
| 5        | <b>EXAM I</b>   |  |
| 10       | Disease prevention  | Chapter 7  |
| 13       | How bacteria evade the first and second lines of defense          | Chapter 8  |
| 17       | Antimicrobial compounds or "Third line of defense"                | Chapter 10. ASM 2000, Vol 66, Number 7, 411-417                |
| 20       | The bacteria fight back   | Chapter 11. Paper: ASM, 2001, Vol 67, Number 1, 27-33          |
| 24       | Review and paper discussion                                       |  |
| 27       | <b>EXAM II</b>  |  |
| March    |   |  |
| 3        | Specific pathogens: Air borne bacterial pathogens                 | Chapter 13, 15, 16   |
| 5        | Spring break  |  |
| 10       | Spring break  |  |
| 13       | Air borne bacterial pathogens                                     | Chapter 17, 18, 19. Paper: ASM 2005, Vol 71, Number 5, 230-234 |
| 17       | Airborne bacterial pathogens                                      | Chapter 20 and 21  |
| 20       | Specific pathogens: Bacterial diseases acquired through ingestion | Chapter 23, 24, 25   |
| 24       | Bacterial diseases acquired through ingestion                     | Chapter 26, 27, 28 and ASM 2000, Vol 66, Number 10, 617-619    |

|       |   |  |
|-------|---|--|
| 17    | Viral replication                                 | Notes  |
| 11    | Viral diseases acquired through ingestion         | Notes  |
| April |   |  |
| 1     | Review and paper discussion                       |  |
| 7     | EXAM III  |  |
| 10    | Diseases acquired through skin and mucosa         | Chapter 29, 30, 31<br>Paper: ASM 2002, Vol 68, Number 2, 70-76 |
| 14    | Diseases acquired through arthropod vectors       | Chapter 12   |
| 17    | Eukaryotic parasitic infections through ingestion | Notes. Paper: ASM, 2000, Vol 66, Number 7, 395-402             |
| 11    | Eukaryotic parasitic infections through ingestion | Notes.   |
| 14    | Review and paper discussion                       |  |
| 18    | FINAL EXAM  | 11:00 AM   |

Medical Microbiology, BIOL 4350, will cover the disease and health relationship between microorganisms and humans. The goals of the course is to have students understand the process of by which microorganism can cause disease, the portals of entry and the consequences, host response to such conditions, the chemical means by which diseases can be treated, methods used for identification of pathogenic organisms, the current views on pathogens, used on relevant papers. Most of the pathogens studied will be bacterial but viral and eukaryotic sources will also be included. Prerequisite: BIOL 3301 or BIOL 3420. (3-0)

There are four exams in this course; each is approximately 24% of the final grade. The remaining points are a combination of class presence and participation, as well as, involvement in paper discussion. You are strongly encouraged to take all exams at the scheduled time. Unless there is a documented medical emergency, no make up exams will be possible. Your final grade is a combination of the points made in each exam and your participation in the class as well as paper discussion.

You can view your exams during discussion of the key; they will not be returned to you. **Any change in grades or any discussion regarding the exams will be done during office hours or by appointment only.**

At anytime during the semester there are any issues or concerns regarding the course please bring them to my attention as soon as possible, all such discussion will be kept strictly confidential.