MICR 201 Microbiology for Health Related Sciences Fall 2011
MW 11:40 am – 1:20 pm, ASCB 132

Instructor:
- Dr. Edith Porter; Office: ASCL 355; Tel: (323) 343-6353
  Email: eporter@calstatela.edu
  Instructional web page: http://instructional1.calstatela.edu/eporter/

Office hours:
- M 9:30 – 11:00 am (graduate advisement with appointment through the department office; walk-ins are welcomed but no guarantee to be seen)
- W: 11:00 – 11:20 am and 1:30 – 2:00 pm (walk-in or make appointment via email directly with me)
- W: 2:00 – 3:30 pm (graduate and academic advisement with appointment through the department office; walk-ins are welcomed but no guarantee to be seen)

Course description:
- Basic function and structure of microorganisms; host-parasite relationships, infectious diseases, immunology and serology, epidemiology, antimicrobial agents, and chemotherapy. Lecture 4 hours.

Prerequisites:
- BIOL 100B or BIOL 200A and BIOL 200B with a grade of C or higher, CHEM 101 or Chem 151 with a grade of C or higher.

Student learning outcome: Upon completion of this course students will
- Be able to describe and differentiate microbial agents most relevant for human health and disease with special emphasis on bacteria and viruses
- Be able to name key parameters promoting microbial proliferation and apply this knowledge to control microbial growth
- Understand microbial interaction with humans and the immune response
- Be familiarized with common microbial diseases including transmission, pathogenesis, symptoms, diagnostics, prevention and therapy
- Be able to identify mechanisms to treat and prevent infectious diseases

Textbook and clickers:
- Turning Technologies; RFC-03, ISBN: 9781934931400

PowerPoints and course related materials:
- Posted in blackboard (https://webct6.calstatela.edu/webct/logon/7438029964001)
- Access via: http://www.calstatela.edu/elps/elpsblackboard.php
- Self- register for MICR201 via MIRC201 - Microbiology for Health Related Sciences - MICR201_ep_SEC01_FA11_CNSS
- Lectures, assignments, announcements, useful links, chats, and more can be accessed through blackboard.

Attendance:
- Regular attendance is required and will be tracked with clickers. Lecture time covers material captured in the PowerPoint slides but also additional verbal instruction, class discussions, and active learning exercises.

Study suggestions:
- Always read the text and the PowerPoints before attending lecture and summarize what you have learned after lecture.
- Take very good notes during lecture- anything what was explained or commented on verbally may appear as question in the quizzes and exams.
- Utilize all student support materials provided by the publisher.
- Form study groups and force yourself to explain the material you have learned.
- Learn to recognize when you need help, and get help in a timely manner (visit office hour, email instructor, tutor center).
- Study, study, study, study, study........
Performance evaluation: 400 points total

50 Quiz I
100 Midterm (comprehensive)
50 Quiz II
200 Final (comprehensive)

All quizzes and exams consist of multiple choice questions. Test questions will include questions drawn from chapter end self study and student contributions. Bring in a scantron (Form No: 882-E) to each exam day, 2 scantrons for the final. You must bring your picture ID to the midterm and final.

Grades: Based on the % points achieved out of the total achievable points (400 Points) the students can earn:

- B+: ≥ 86 % (344 pts)
- C+: ≥ 75 % (300 pts)
- D+: ≥ 66 % (264 pts)
- A: ≥ 93 % (372 pts)
- B: ≥ 83 % (332 pts)
- C: ≥ 72 % (288 pts)
- D: ≥ 63 % (252 pts)
- A-: ≥ 90 % (360 pts)
- B-: ≥ 80 % (320 pts)
- C-: ≥ 69 % (276 pts)
- D-: ≥ 60 % (240 pts)

Extra credit: There will be several extra credit opportunities including in class assessment with multiple choice and clickers throughout the quarter. However, these will be credited only if all quizzes and exams have been taken.

Absences: Repeated absence will result in point reduction.

General policies:

No make-up examinations. Missed events will be set as “0 points” unless satisfactorily justified with supporting documentation (e.g. doctor’s note). Students are responsible to acquire the missed information. The Drop/Incomplete and Academic/Honesty policies explained in the University General Catalogue will be strictly followed. Students are expected to read and abide by the University’s Academic Honesty Policy (http://www.calstatela.edu/academic/senate/handbook/ch5a.htm). Students who violate this policy will be subject to disciplinary action, and may receive a failing grade in the course for a single violation. You are responsible for the prerequisites for this course and are encouraged to discuss any questions regarding the policies and prerequisites with the instructor.

Students with disabilities: Reasonable accommodation will be provided to any student who is registered with the Office of Students with Disabilities and requests needed accommodation.

Students are strongly encouraged to work with the instructors throughout the course.

You can email anytime and expect responses within 24 hours.
### Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
</table>
| 1    | 9-26-11  | Introduction and course requirements  
What is microbiology and why does it matter?  
Fundamental chemistry for Microbiology | 1, 2    |
|      | 9-28-11  | Registration for clickers  
Essentials of metabolism  
Introduction to cell structure and host-pathogen relationships | 3, 4    |
| 2    | 10-03-11 | Requirements of infection  
Transmission of infection, the compromised host, and epidemiology | 5, 6    |
|      | 10-05-11 | Principles of disease  
Emerging and re-emerging infectious diseases | 7, 8    |
| 3    | 10-10-11 | Quiz I (50 pts)  
The clinical significance of bacterial anatomy | 9       |
|      | 10-12-11 | Bacterial growth  
Microbial genetics and infectious diseases | 10, 11  |
| 4    | 10-17-11 | The structure and infection cycle of viruses  
Viral pathogenesis | 12, 13  |
|      | 10-19-11 | Parasitic and fungal infections | 14      |
| 5    | 10-24-11 | Midterm (100 pts)  
You must bring your picture ID to the exam! | No lecture, exam only |
|      | 10-26-11 | Innate Immune response  
Adaptive immune response | 15, 16  |
| 6    | 10-31-11 | Adaptive immune response  
Failures of the immune response | 16, 17  |
|      | 11-02-11 | Control of microbial growth with disinfectants and antiseptics  
Antibiotics | 18, 19  |
| 7    | 11-07-11 | Antibiotic resistance  
Quiz II (50 pts) | 20       |
|      | 11-09-11 | Infections of the respiratory system | 21       |
| 8    | 11-14-11 | Infections of the digestive system | 22       |
|      | 11-16-11 | Infections of the genitourinary system | 23       |
| 9    | 11-21-11 | Infections of the central nervous system | 24       |
|      | 11-23-11 | Infections of the blood | 25       |
| 10   | 11-28-11 | Infections of the skin and eyes | 26       |
|      | 11-30-11 | Biotechnology  
Bioterrorism | 27, 28   |

**Final Examination (200 points): Monday, December 5th, 2011; 10:45 – 1:15 pm**  
**You must bring your picture ID to the exam!**