Microbiology 330: Host-Microbe Interactions SYLLABUS for Spring 2015 MWF 11 am Room 1420 Microbial Sciences Building

Welcome to Microbiology 330, Host-Microbe Interactions. The focus of this course is on the biology of microbial interactions. The content covered includes both beneficial interactions and pathogenic interactions between microbes and their hosts. The majority of the course covers the interactions between microbes and humans.

Instructors

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Textbook

There is no textbook for this course. Course material will be provided as PDF files of readings and PowerPoint presentations. These materials are the property of the University of Wisconsin and are for your personal use only. You are not allowed to repost/upload them in any form to any web site. Doing so will be considered academic misconduct.

Learn@UW

The course Learn@UW site will be used to post files of lecture presentations, readings, and other materials and to post grades.

In-class activities and Exams

In-class activities

There are several class sessions where there will be in-class activities. These are clearly marked in the syllabus. Materials produced by students will be handed in at the end of class and graded. Sometimes these activities are dependent on readings that will be posted on Learn@UW. This will be clearly noted for each activity.

Exams

There will be three exams, each worth 80 points. Exams will only cover material in that section of the course. There is no comprehensive final. The first two exams will be held during class periods and will be a mixed format, including short answer, fill in the blank, multiple choice, True/False, etc. The third exam will take place during the official Final Exam Period, but will only cover material from section III. The final exam period is Thursday, May 14, 2015 from 5:05 to 7:05 pm, location to be determined.

Writing assignments

For each unit, there will be one take-home writing assignment. These will be due at the time of each exam.

Semester project

Students will produce a portion of a "pathogen factsheet" for five microbial pathogens. These will be due at intervals during the semester; these dates are clearly marked in the syllabus. More information on this is found in a separate document.

Grading

The course is divided into three even sections. There are 400 possible points in the course, with the breakdown of points as follows

| Exam I | 80 points |
|----------------------------------|-------------|
| Writing activity for Section I | 10 points |
| Exam I | 80 points |
| Writing activity for Section II | 10 points |
| Exam I | 80 points |
| Writing activity for Section III | 10 points |
| In-class activities | 60 points (|
| Pathogen worksheet | 70 points |
| | |

Grading for the course will follow the APPROXIMATE scale of

>92% = A

>82% = B

>72% = C

>60% = D

<60% = F

The lecture topic schedule for the course is below:

Microbiology 330 Spring 2015 Lecture schedule

| Week | Date | Lecture | Title | Activity/Assignment due |
|------|----------------------|---------|--|-------------------------|
| 1 | W Jan 21 | 1 | Introduction | <i>"</i> |
| _ | F Jan 23 | 2 | Introduction | |
| 2 | M Jan 26 | 3 | Examples of microbial Interactions | |
| | W Jan 28 | 4 | Examples of microbial Interactions | |
| | F Jan 30 | 5 | Examples of microbial Interactions | |
| 3 | M Feb 2 | 6 | Examples of microbial Interactions | |
| | W Feb 4 | 7 | Human microbe interactions: introduction | |
| | F Feb 6 | 8 | Human microbe interactions: introduction | In-class activity |
| 4 | M Feb 9 | 9 | Human microbe interactions: introduction | III class delivity |
| | W Feb 11 | 10 | Host response | |
| | F Feb 13 | 11 | Host response | |
| 5 | M Feb 16 | 12 | Human microbe interactions: pathogens | |
| | W Feb 18 | 13 | Human microbe interactions: pathogens | |
| | F Feb 20 | 14 | Human microbe interactions: pathogens | |
| 6 | M Feb 23 | 14 | Exam 1 lectures 1 – 14 | EXAM |
| | W Feb 25 | 15 | Skin microbiota | EXAM |
| | F Feb 27 | 16 | Skin pathogens | |
| 7 | M Mar 2 | 17 | Skin pathogens | |
| | W Mar 4 | 18 | Oral microbiota | |
| | F Mar 6 | 19 | Oral pathogens | |
| 0 | M Mar 9 | 20 | Oral pathogens Oral pathogens | Pathogen profile 1 due |
| 8 | W Mar 11 | 21 | | Pathogen prome 1 due |
| | F Mar 13 | 22 | Nasopharynx and respiratory microbiota | |
| | | | Respiratory tract pathogens | Dathagan profile 2 due |
| 9 | M Mar 16 W Mar 18 | 23 | Respiratory tract pathogens | Pathogen profile 2 due |
| | | - | Respiratory tract pathogens | |
| 10 | F Mar 20 | 25 | Respiratory tract pathogens | |
| 10 | M Mar 23 | 26 | Respiratory tract pathogens | EVARA |
| | W Mar 25 | | Exam 2 lectures 15 – 26 | EXAM |
| 11 | F Mar 27 | | No class | |
| 11 | M Mar 30 | | Spring break | |
| | W Apr 1 | | Spring break | |
| 10 | F Apr 3 | | Spring break | |
| 13 | M Apr 5 | 27 | Urogenital microbiota | |
| | W Apr 8 | 28 | Urogenital pathogens | |
| | F Apr 10 | 29 | Gastrointestinal microbiota | |
| | M Apr 13 | 30 | Gastrointestinal microbiota | Pathogen profile 3 due |
| | W Apr 15 | 31 | Gastrointestinal microbiota | |
| | F Apr 17 | 32 | Gastrointestinal microbiota | In-class activity |
| 14 | M Apr 20 | 33 | Gastrointestinal pathogens | 1 |
| | W Apr 22 | 34 | Gastrointestinal pathogens | In-class activity |
| | Fri Apr 24 | 35 | Gastrointestinal pathogens | |
| 15 | M Apr 27 | 36 | Circulatory pathogens | Pathogen profile 4 due |
| | W Apr 29 | 37 | Circulatory pathogens | |
| | Fri May 1 | 38 | Circulatory pathogens | |
| 16 | Mon May 4 | 39 | Circulatory pathogens | Pathogen profile 5 due |
| | Wed May 6 | 40 | Nervous system pathogens | |
| | Fri May 8 | 41 | Nervous system pathogens | |

May 14: Exam 3 lectures 27 – 41