Instructors:
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Other Good Resources:


FLU, the Story of the Great Influenza Pandemic of 1918 and the Search for the Virus that Caused It, Kolata, G., 1999. An interesting account of the devastation caused by pandemic flu.


Course Description: The emphasis of this course will be on understanding the molecular mechanisms of human viral pathogens. It will begin with a general introduction to the field of virology and then focus on the biology of specific viruses that are associated with human disease. Lectures will be based on the current literature and the text.

Grading:

- Midterm exam (10/19/17) covers lectures 1-6 and is worth 100 points.
- Final exam (12/21/17): covers primarily lectures 6-12 but includes some material from the first part of the course (150 points).
- Online problem sets (100 points). The quizzes will be based on the assigned primary papers. There will be a total of 10 quizzes they are worth 10 points each.
Lecture Schedule:

Lecture 1:  Introduction, History and Methods  
Composition, Structure and Classification – Dr. Shank  
Chapters 1 and 2

Lecture 2:  Replication, Attachment and Entry  
Genome Replication and Expression – Dr. Jamieson  
Chapter 3 and 4

Lecture 3:  Pathogenesis and Immunity – Dr. Jamieson  
9/21  
Chapters 5 and 6

Lecture 4:  Antiviral Chemotherapy and Vaccines – Dr. Jamieson  
9/28  
Chapters 30 and 31

Lecture 5:  Picornaviridae, Caliciviridae and Coronaviridae – Dr. Shank  
10/5  
Chapter 7, 9, 10 and 13

Lecture 6:  Flaviviridae, Togaviridae - Dr. Jamieson  
10/12  
Chapter 11, 12

Lecture 7:  Rhabdoviridae and Paramyxoviridae - Dr. Shank  
10/19  
Midterm Exam (lectures 1-6)  
Chapter 17 and 19

Lecture 8:  Orthomyxoviridae Arenaviridae and Filoviridae - Dr. Jamieson  
10/26  
Chapter 14, 15 and 18

Lecture 9:  Papillomaviridae and Polyomaviridae - Dr. Shank  
11/2  
Chapter 21 and 22

Lecture 10:  Paroviridae, Adenoviridae and Herpesviridae - Dr. Meredith Crane  
11/9  
Chapter 23, 25 and 26

Lecture 11:  Retroviridae - Dr. Shank  
11/16  
Chapter 27

11/23: No Lecture (Thanksgiving)

Lecture 12  Poxviridae and viral vectors: - Dr. Shank  
11/30  
Chapter 24

Lecture 13  Hepadnaviridae and Hepatitis viruses - Dr. Shank  
12/7  
Chapter 28  
12/8-12  
Reading Period

12/21: Final Examination