

	Date		Topics
1	Th	1/19	Overview, Impact of infectious diseases, Emerging infectious diseases, Koch's postulates
2	Tu	1/24	Host response: Innate immunity, PAMPs
3	Th	1/26	Host response: Acquired immunity (T-cells)
4	Tu	1/31	Host response: Acquired immunity (B-cells)
5	Th	2/2	Bacterial strategies for evading host defenses; endotoxin, super-antigens
6	Tu	2/7	Extracellular pathogens – exotoxins, A-B toxins
7	Th	2/9	– Staphylococcus, Streptococcus
8	Tu	2/14	Facultative intracellular pathogens – Mycobacterium
9	Th	2/16	– Salmonella, Shigella; TTSS
10	Tu	2/21	Obligate intracellular pathogens – Chlamydia, Rickettsia
11	Th	2/23	Accidental pathogens – Pseudomonas
12	Tu	2/28	Transmission and epidemiology diseases – Cholera
13	Th	3/2	<b>Exam 1</b>
14	Tu	3/7	Sexually transmitted diseases – Gonorrhea, Syphilis
15	Th	3/9	Zoonoses – Borrelia burgdorferi
			Spring break
16	Tu	3/21	Chronic pathogens – Helicobacter pylori
17	Th	3/23	Antibiotics and antibiotic resistance
18	Tu	3/28	Assays for virulence, Molecular Koch's postulates, Identification of virulence genes
19	Th	3/30	Viruses vs microbial pathogens: Biology of viruses
20	Tu	4/4	Viruses transmitted via air: Influenza, Rhinovirus, SARS
21	Th	4/6	Viral diseases of childhood: Measles, Mumps
22	Tu	4/11	Viruses transmitted via food or water: Rotavirus, Polio, Hepatitis A
23	Th	4/13	Viruses transmitted via sex, needles, or blood: Hepatitis B, Hepatitis C, and HIV
24	Tu	4/18	Latent viruses: HSV
25	Th	4/20	Oncogenic viruses: Human Papilloma virus
26	Tu	4/25	Parasitic infections
27	Th	4/27	Fungal pathogens
28	Tu	5/2	<b>Exam 2</b>
29	Th	5/4	Antiviral and anti-parasitic drugs
30	Tu	5/9	Vaccines
	Th	5/18	<b>Final Exam 1:00-2:30 PM</b>

**Lecture**      **Topic / Readings**

1. Virulence mechanisms  
<http://textbookofbacteriology.net/NHPR.html>
2. Innate immunity  
<http://textbookofbacteriology.net/constitutedefense.html>
3. Acquired immunity  
<http://textbookofbacteriology.net/immune.html>
4. Evasion of immune response  
<http://textbookofbacteriology.net/colonization.html>  
<http://textbookofbacteriology.net/pathogenesis.html>  
<http://textbookofbacteriology.net/antiphago.html>  
<http://textbookofbacteriology.net/antiimmuno.html>
5. Endotoxin  
<http://textbookofbacteriology.net/endotoxin.html>
6. Exotoxins  
<http://textbookofbacteriology.net/proteintoxins.html>  
  
Examples  
<http://textbookofbacteriology.net/diphtheria.html>  
<http://textbookofbacteriology.net/pertussis.html>  
<http://textbookofbacteriology.net/clostridia.html>  
<http://textbookofbacteriology.net/Anthrax.html>
7. Staphylococcus  
<http://textbookofbacteriology.net/staph.html>  
  
Streptococcus  
<http://textbookofbacteriology.net/streptococcus.html>  
  
Streptococcus pneumoniae and Pneumococcal Pneumonia  
<http://textbookofbacteriology.net/S.pneumoniae.html>
8. Facultative intracellular pathogens: Mycobacteria  
<http://textbookofbacteriology.net/tuberculosis.html>
9. Facultative intracellular pathogens: Salmonella and Shigella  
<http://textbookofbacteriology.net/salmonella.html>  
<http://textbookofbacteriology.net/Shigella.html>
10. Obligate intracellular parasites: Chlamydia and Rickettsia  
<http://www.bact.wisc.edu/bact330/chlamydia.html>  
<http://textbookofbacteriology.net/Rickettsia.html>

11. Accidental pathogens: Pseudomonas  
<http://textbookofbacteriology.net/pseudomonas.html>
12. Transmission and epidemiology  
<http://textbookofbacteriology.net/cholera.html>
13. Sexually transmitted diseases: Gonorrhoeae and Syphilis  
<http://textbookofbacteriology.net/neisseria.html>  
<http://www.bact.wisc.edu/bact330/syphilis.html>
14. Zoonoses: Borrelia  
<http://textbookofbacteriology.net/Lyme.html>
16. Chronic pathogens: H. pylori  
<http://www.bact.wisc.edu/bact330/helico1.html>  
<http://www.bact.wisc.edu/bact330/helico2.html>  
Blaser, M. 2005. An endangered species in the stomach. Sci. Am. 292(2)
17. Antibiotics and antibiotic resistance  
<http://textbookofbacteriology.net/antimicrobial.html>  
<http://textbookofbacteriology.net/resantimicrobial.html>
18. Identification of virulence mechanisms  
Supplement posted on Bb
19. Sompoyrak pp. 3-6
20. Sompoyrak pp. 19-28
21. Sompoyrak pp. 28-34
22. Sompoyrak pp. 35-50
23. Sompoyrak pp. 51-58; 66-72
24. Sompoyrak pp. 72-77
25. Sompoyrak pp. 77-84
26. Parasitic infections
27. Fungal infections  
<http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=mmed.chapter.3886>  
<http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=mmed.chapter.3966>
29. Sompoyrak pp. 95-103
30. Sompoyrak pp. 103-108