

**Special Topics in Biology: Virology**

Instructor: Dr. Jonas Winchell - [zdx2@cdc.gov](mailto:zdx2@cdc.gov); (404) 639-4921

Fall 2008; T/Th 4:35-5:55pm

Required Text: Fundamentals of Molecular Virology, 2007, Nicholas Acheson

Additional readings as assigned

**Wk1 08/18/08**

Introduction: Course objectives, Syllabus, Student responsibilities, Terminology & Brief History **Ch1**  
Classification systems, General Characteristics **Ch3**

**Wk2 08/25/08**

Virus Structure **Ch2 - Take home problem set I (no class 08/28/08)**

Attachment & Entry to host cells **Ch4**

**Wk3 09/01/08**

Genome Replication, mRNA production, assembly, maturation, exit

**09/02/08 – Take home problem set I due**

**Wk4 09/08/08**

General Pathogenesis Overview

Laboratory techniques for isolating, propagating, quantifying, detecting and studying viruses

**Wk5 09/15/08**

Catch up – Term Paper topic assigned

**09/18/08 EXAM I**

**Wk6 9/22/08**

Picornaviridae (polio) **Ch16**

REOviridae (rotavirus) **Ch24**

**Wk7 09/29/08**

HIV **Ch25 & Ch26**

**Take home problem set II**

**Wk8 10/06/08**

Term paper work week

**Wk9 10/13/08**

Fall break 10/14/08

Papillomaviruses (HPV) **Ch11**

**10/16/08 – Take home problem set II due**

**Wk10 10/20/08**

Influenza **Ch23**

**Wk11 10/27/08**

10/28/08 Filoviruses **Ch21**

**10/30/08 EXAM II**

**Wk12 11/03/08**

Hepatitis Infections - **Ch 28 & Parts of Chps16/17/29**

**Wk13 11/10/08**

Poxviridae **Ch15**

Viroids / Virusoids **Ch29**

**Wk 14 11/17/08**

Interferons **Ch31**

11/20/08 – GTTGP

**WK15 11/24/08**

**11/24/08 – Term Paper due**

Interferons II

Thanksgiving Break 11/27/08

**Wk16 12/01/08**

**Presentations**

**Final - December 11<sup>th</sup> 8-10:30a.m.**

Grading:           Exam I = 100pts  
                        Exam II = 100pts  
                        Final = 100pts  
                        Take home problem set I = 10pts  
                        Take home problem set II = 10pts  
                        Paper = 100pts  
                        Presentation = 30pts  
                        Participation = 50pts  
                        Total = 500pts

Although class attendance is not mandatory (except for the last week), it is strongly recommended that you attend every class because many lectures are built upon previous ones. In addition, class participation is worth 50pts and you'll need to be in attendance in order to participate. Each exam will not be cumulative; however students are responsible for material presented previously as it applies to the current topics. As always, please ask questions whenever you don't understand something, or need clarification. I am available before classes by arrangement and immediately after most classes. Further, since I am only on campus for the days the class meets, make-up exams are extremely difficult to schedule and are discouraged for a variety of reasons. If absolutely necessary, an ORAL make-up exam may substitute at my discretion, contingent upon many factors, but mostly due to time. **Extra credit projects are not an option to raise a poor grade, therefore please prepare for each exam accordingly.** What you will get out of this class will be directly correlated to what you put into the class. I truly hope you enjoy the class.

Regarding References/Recommendations

Throughout the years teaching here at GaTech I have written numerous recs for students. Although I see this as a responsibility as a professor, and I am flattered by the request, my time in the last couple years has become extremely limited. Because of this, I cannot always grant the request, but on the rare occasion that I am able, you are charged with supplying me with: any required forms, envelopes, postage, websites, a biography, a transcript, and at least **3** weeks notice. Further, please be realistic with your goals. For instance, it is in no one's best interest for you to apply to a med school with a sub par GPA and poor MCAT scores. Lastly, FYI, I take writing recs very seriously and you can count on me to accurately relay my assessment of the student to the institute that they are applying to, for better or worse.

A word on problem sets, the term paper and the presentations:

\*Problem sets are due on the due date, no exceptions, and must be legible...only a hard copy is required.

\*The term paper will have its own set of guidance and instructions. It should be submitted BOTH as a hardcopy and electronically.

\*The presentations will be approx. 10 minutes. You must succinctly summarize your topic to the class such that the "big picture" is relayed and each student understands the "take home points". Ideally, you should be able to entirely present this orally; however, if you need to use handouts or ppt to show something pertinent then this is acceptable, but be mindful that 10 minutes can move fast and you need to get all your points across in that time or it will impact your grade. All presentation material is subject to be included on the final. Attendance to all presentations is mandatory, participation points will be subtracted for those who do not attend.