

BIOLOGY 391P - ANIMAL VIROLOGY SPRING 2014

Unique No.: 51615 **TTH 11:00am-12:30pm** **Room:** JGB 2.218

Readings: *Fundamentals of Molecular Virology* by Nicholas Acheson 2nd edition;
Available through University Co-op or amazon.com or Chegg.com

Instructor: Dr. Jaquelin Dudley

Office Hours: Mondays, 5:00-6:00 pm; Thursdays, 8:30-9:30am or by appointment only
in NMS 2.122; Phone 471-8415

Web site: <http://www.sbs.utexas.edu/jdudley/bio330>; User name: biosci\bio330

Password will be provided in class.

Electronic mail: mmtv@austin.utexas.edu

Overview: This course focuses on the molecular biology, replication, and pathogenesis of mammalian viruses. The goal is for you to think critically about viruses and their strategies for survival and how we can use this information to prevent disease.

Lecture	Date	Topic	Text Chapter	Quiz
1	Jan. 14	Introduction; Virus Structure	Ch. 1	--
2	Jan. 16	Virus Structure and Classification	Ch. 2 and 3	--
3	Jan. 21	" "	" "	--
4	Jan. 23	Tissue Culture and Cell Biology	" "	1
5	Jan. 28	Infectious Cycle	Ch. 1 and 4	--
6	Jan. 30	" "	" "	--
7	Feb. 4	Picornaviridae	Ch. 11	--
8	Feb. 6	" "	" "	2
9	Feb. 11	" "	" "	--
10	Feb. 13	" "	" "	--
---	Feb. 18	EXAM 1	---	Exam
11	Feb. 20	Togaviridae	Ch. 13	--
12	Feb. 25	" "	" "	--
13	Feb. 27	Flaviviridae	Ch. 12	--
14	Mar. 4	Animal Virus Genetics		3
15	Mar. 6	Rhabdoviridae	Ch. 15	--
---	Mar.10-14	SPRING BREAK	---	--
16	Mar. 18	Rhabdoviridae	Ch. 15	--
17	Mar. 20	" "	" "	4
18	Mar. 25	Defective Interfering Particles		--
19	Mar. 27	Cellular Defenses/Interferon	Ch. 33	--
---	Apr. 1	EXAM 2	---	Exam
20	Apr. 3	Orthomyxoviridae	Ch. 18	--
21	Apr. 8	" "	" "	--
22	Apr. 10	Retroviridae	Ch. 28	--
23	Apr. 15	" "	" "	5
24	Apr. 17	Oncogenesis by Retroviruses	Ch. 28	--
25	Apr. 22	HIV; AIDS	Ch. 29	--
26	Apr. 24	" "	" "	--
27	Apr. 29	Polyomaviridae	Ch. 21	6
28	May 1	" "	" "	--
Mon.	May 12	COMPREHENSIVE FINAL EXAM	2-5pm	Exam

QUESTIONS:

Questions during class periods and during office hours are encouraged. If you cannot attend regularly scheduled office hours, please CALL or SEND E-MAIL FIRST to make an appointment. Please make use of electronic mail for questions (mmtv@austin.utexas.edu). It is an excellent way to think through problems that you may have encountered with the lecture material and, often, you may receive the answer faster than through an appointment. There also is a **Discussion Board** on the web site that can be used to post questions and allow discussion among members of the class.

EXAMS AND GRADING:

Two exams will be given during the regularly scheduled class period in JGB 2.218 and a **comprehensive** final exam will be given on Monday, May 12. Each of the regularly scheduled exams will count as 25% of your grade. Answers to exam questions will be graded more stringently than those for BIO330. Another 25% of your grade will be determined by a minireview (see below).

Make-up exams are given only under RARE circumstances and MUST BE accompanied by written documentation of the absence and after approval from the instructor. Each regularly scheduled exam will be in a short answer/essay format and will cover lectures and assigned reading material from the part of the course immediately preceding each exam. Exams will be given according to the syllabus schedule unless there is an official University holiday. Approximate letter grades will be given for each exam. These grades should only be considered as general indicators of your progress and not as formal partial grades.

Exams usually are graded within one week and will be returned during class periods (except the final exam). Cheating WILL NOT be tolerated under any circumstances, and all exams are copied before they are returned. Therefore, there is a written record of all responses during the exam period. Re-grading of exams will be considered only by returning the exam with a WRITTEN explanation via e-mail. Exams will be considered for re-grading only until another regularly scheduled exam is given; this means that you have about a month and a half to have re-grades performed.

MINIREVIEW

You will be expected to write a minireview according to the format of *Journal of Virology* (25% of your grade). For recent examples, see: (<http://jvi.asm.org/content/by/section/Minireviews>). The subject of the minireview must be approved by the instructor in writing by mid-February, and you should submit three primary references and an abstract (before Spring Break). Be aware that you may not plagiarize other scientific articles, reviews, or minireviews. Your article must contain current references and should not exceed 15 **double-spaced** pages (ca. 5,000 words) (not including references). Your review should focus on the primary literature, and other reviews/minireviews should not be the focus of citations. The format should be Arial 11 point with 1 inch margins; pages should be numbered starting with the title page. The article will be due on the last day of class (Thursday, **May 1**). Late submissions will not be accepted except under unusual circumstances. Your grade will be based on your ability to accurately summarize the current literature and to identify unifying themes and/or directions of future research.

ACADEMIC INTEGRITY:

Cheating WILL NOT be tolerated under any circumstances, and all exams are copied before they are returned. Therefore, there is a written record of all responses during the exam and quiz periods. Please review the policies of the University on academic integrity and the honor code.

http://deanofstudents.utexas.edu/sjs/acint_student.php

CELL PHONES:

Cell phones are not permitted for use in the classroom unless you have a doctor's excuse. Cell phone use is extremely disruptive to the instructor and other students. If you have a cell phone, it must be off and stored out of sight.

RELIGIOUS HOLIDAYS:

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, exam or other assignment to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

STUDENTS WITH DISABILITIES:

Please notify me during the first two weeks of class of any modification/adaptation that you may require to accommodate a need related to your disability. You will be requested to provide documentation to the Office of the Dean of Students so that the most appropriate accommodations can be determined. Specialized services are available on campus through Service for Students with Disabilities.

<http://ddce.utexas.edu/disability/>

READING MATERIAL:

The assigned reading material has been cited from the textbook "Fundamentals of Molecular Virology" by Nicholas H. Acheson (2nd ed.) (available from the University Co-op or amazon.com or Chegg.com). This book is on reserve in the Science library, but also can be rented through Amazon or Chegg. The textbook also is available electronically: www.coursesmart.com/

Other recommended textbooks are *Genes XI* by Benjamin Lewin, *Fundamental Virology* (4th ed.) by David Knipe and Peter M. Howley, *Principles of Virology* by S. J. Flint et al. (3rd ed.), *Virology: Principles and Applications* by John Carter (2007), and *Virology: Molecular Biology and Pathogenesis* by Leonard Norkin (2010). Some of these recommended textbooks are on reserve in the Science library.