

Description	Percentage	Comments
3- one hour exams	39%	13% each
Final Exam	13%	Comprehensive final exam
Review	13%	Written review of a virus family
Weekly quizzes	10%	Quizzes will be taken on Tuesday's of each week and in general cover material from the previous one to two weeks
Laboratory	25%	See Laboratory section for grading information

Review. Thirteen percent of your final grade will be from a semester research project. Each student will be provided with the name of a virus family to research. The student will conduct a literature search and prepare a written report on the virus family. This report will provide information on the viruses' morphology, molecular biology, pathology, epidemiology, and host range. It should also include a discussion on the means of viral replication. The report should be double-spaced and include appropriate visual aids and a bibliography. The length of the paper should be approximately 10-15 pages (double-spaced, 12pt font, and 1" margins). A list of literature cited should be included at the end of the text. References must be cited in the text. The simplest citation system is the one used by ASM journals such as the Journal of Virology – a complete description of this system can be found at <http://www.journals.asm.org>. At least ten references should be used for the paper. Textbooks, encyclopedias, and websites are not considered to be primary literature references and should not be included as references.

Research Paper Format:

Introduction

Classification and Morphology

Molecular Biology and Replication Strategy

Host(s) and Epidemiology

Human Diseases Associated with the Virus Family

Diagnosis and Pathology

Treatment and Prevention

Research Paper Evaluation:

Title and Bibliography completed and turned in on time	5%
Content	40%
Proper use of English	10%
Spelling	10%
References: Number and depth of search	20%
References: Citation in text and reference list	15%
Total Score	100%
Late Penalty	-10%
Grade	Sum

TENTATIVE LABORATORY SCHEDULE		
WEEK	DATE	TOPIC
1	Jan 10	Introduction and Discussion of Course Requirements
2	Jan 17	MLK Day – No Classes
3	Jan 24	Review of Virus families; Literature search
4	Jan 31	Molecular Biology Tools – PCR
5	Feb 7	Molecular Biology Tools – Southern, Northern, and Western Blots
6	Feb 14	Title and Bibliography due
7	Feb 21	Molecular Biology Tools – Sequence databases
8	Feb 28	Midterm Virology Lab Exam
9	Mar 7	Spring Break – No Classes
10	Mar 14	Concentrations, dilutions, and viral titer (First draft due for critique)
	Mar 21	Standard curves (Critiques due)
11	Mar 38	Virology Presentations
12	Apr 4	Virology Presentations
13	Apr 11	Virology Presentations
14	Apr 18	Virology Presentations (Final Paper due)
15	Apr 25	Virology Presentations

Virology presentations: Each student will be assigned a paper to present to the class. A copy of each paper will be made available to all students. Each presentation should describe the hypothesis set forth by the paper along with the experimental design, important findings, and conclusions. The student should prepare overhead transparencies for class discussion. Transparencies can be made in the Department of Biology and Geology Office (see Mrs. Carol Cutsinger for assistance).

Your lab grade will be calculated based on your virology paper presentation (30%) and on two virology lab quizzes (70%, 35% each). The first quiz will be given at midterm and will cover the first half of the semester. The second quiz will be given at the time of the final exam and will cover the material discussed over the second half of the semester.

TENTATIVE LECTURE SCHEDULE

WEEK	DATE	TOPIC	CHAPTER
1	Jan 11	An Introduction to Virology	1
	Jan 13	An Introduction to Virology	1
2	Jan 18	Quiz; An Outline of Virus Replication and Viral Pathogenesis	2
	Jan 20	An Outline of Virus Replication and Viral Pathogenesis	2
3	Jan 25	Quiz; Viral Diseases within Populations and Individual Animals	3
	Jan 27	Viral Diseases within Populations and Individual Animals	3
4	Feb 1	Quiz; Patterns of Some Viral Diseases of Humans	4
	Feb 3	Patterns of Some Viral Diseases of Humans	4
5	Feb 8	Exam I	
	Feb 10	Patterns of Some Viral Diseases of Humans	4
6	Feb 15	Quiz; Virus Structure and Classification	5
	Feb 17	Virus Structure and Classification	5
7	Feb 22	Quiz; The Beginning and End of the Virus Replication Cycle	6
	Feb 24	The Beginning and the End of the Virus Replication Cycle	6
8	Mar 1	Quiz; The Beginning and the End of the Virus Replication Cycle	6
	Mar 3	The Beginning and the End of the Virus Replication Cycle	---
9	Mar 8	SPRING BREAK – No Classes	
	Mar 10		
10	Mar 15	Exam II	
	Mar 17	Host Immune Response to Viruses: The Nature of the Vertebrate Immune Response	7
11	Mar 22	Quiz; Host Immune Response to Viruses: The Nature of the Vertebrate Immune Response	7
	Mar 24	Viruses Use Cellular Processes to Express their Genetic Information	13
12	Mar 29	Quiz; Viruses Use Cellular Processes to Express their Genetic Information	13
	Mar 31	Replication of Positive-Sense RNA Viruses	15
13	Apr 5	Quiz; Replication of Positive-Senses RNA Viruses	15
	Apr 7	Replication Strategies of RNA Viruses Requiring RNA-Directed mRNA Transcription in the First Step in Viral Gene Expression	16
14	Apr 12	Exam III	
	Apr 14	Replication Strategies of RNA Viruses Requiring RNA-Directed mRNA Transcription in the First Step in Viral Gene Expression	16
15	Apr 19	Quiz; Replication of Cytoplasmic DNA Viruses	19
	Apr 21	Replication of Cytoplasmic DNA Viruses	19
Final	May 3	Final Exam at 8:00AM in H&SS 116	