Virology Gr.2
Friday 14:30-17:00 @ KMB321
Instructor: Assist.Prof.Dr. Alper Yilmaz
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Office Hours: by appointment
http://yarbis.yildiz.edu.tr/alyilmaz/course/viewCourse/id/6378

Course Goals

In this course, you will:

1. Learn complexity and diversity of viruses.
2. Learn that viruses help understand cellular mechanisms and they excelled at many aspects (e.g. trafficking).
3. Understand that viruses hack the system (i.e. cell) and usually use a workarounds, **even by overriding dogmas**, to tackle with various barriers.

Course Materials

Course textbook(s) are *Virology: Principles and Applications* by John Carter and Venetia Saunders (2007). In addition we might refer to another book, *Fundamentals of Molecular Virology* by Nicholas Acheson (2011).

Lecture notes are handed in copy center across our department. PDF versions of lecture slides can be downloaded from YARBIS page.

Lecture notes contain more pics with sparse text, thus you need to listen the instructor and take notes.

Grading

Your grade will come from the following sources:

- Midterm: 35%
- Final: 35%
- Quiz: 15%
- Assignment: 10%
- Attendance: 5%

There will be 4 quizes and 3 highest scores will be considered. If you attend all lectures or miss only one lecture then you'll get 5 points. For every 1-2 lectures missed you'll lose 1 point.

Final exam will cover topics discussed after Midterm exam.

Number and content of assignments will be provided later. The assignments will be related to "applications of a given virus to bioengineering problems".

Midterm and Final results are announced at "YARBIS Announcements" page, if you think there's mistake or problem with your score please contact the instructor in order to go over your exam results. At the end of the semester, all your exam scores and total score will be published along with letter ranges. If your total score is very close to boundary please contact the instructor and he would try to help in that matter.

Communication

I'm trying to respond emails as quickly as possible. If you don't get a response within 1-2 days please don't hesitate to send a reminder email.

The changes pertaining to exam date, time and assignment due dates should be decided in class after discussing with everybody. Please don't ask for changes individually, otherwise notification of whole class becomes a hassle.

Manners

Since you're considered adult, it's your responsibility and decision to listen to the class or not. You can either pay attention and participate in class OR pay no attention and be busy with your cellphone or homework or lab report of another course. Your poor decision should be affecting only you. If you start and keep talking during class, keep instructor and classmates distracted then it will be regarded as an **insult** and acted accordingly.

Schedule

Below is the tentative schedule for the course. Depending on the speed we go through topics there might be shifts in the schedule. **NOTE :** The midterm date is just a forecast, so **the midterm will take place on the date and time the department announces**.

February 24. Introduction

Introduction to virology and various fields related to virology. Overview of complexity and diversity of viruses, their genomes an proteins. Main differences between enveloped and non-enveloped viruses.

March 3. Methods Used in Virology & Virus Structure

Chapter 2 and *Chapter 3* in our textbook.

Mechanisms

March 10. Attachment, Entry, Translation and Transport

Chapter 5 and *Chapter 6* in our textbook.

March 17. Virus Genome Replication & Assembly and Exit

Chapter 7 and *Chapter 8* in our textbook.

March 24. Classification and Nomenclature of Viruses

Chapter 10 in our textbook.

Individual Virus Families

March 31. Herpesviruses and Other dsDNA Viruses

Chapter 11 in our textbook.

April 7. Parvoviruses and Other ssDNA Viruses

Chapter 12 in our textbook.

(April 14). Midterm

April 21. Reoviruses and Other dsRNA Viruses

Chapter 13 in our textbook.

April 28. Picornaviruses and Other Plus-strand RNA Viruses

Chapter 14 in our textbook.

May 5. Rhabdoviruses and Other Minus-strand RNA Viruses

Chapter 15 in our textbook.

May 12. Retroviruses & HIV

Chapter 16 and *Chapter 17* in our textbook.

May 19. National Holiday

No Classes

May 26. Hepadnaviruses and Other Reverse-transcribing DNA Viruses

Chapter 18 in our textbook

June 2. Evolution and Emerging of Viruses

Chapter 20 and *Chapter 21* in our textbook.

Acknowledgments

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