Virology MCB 4503

Course Syllabus

Instructor: Dr. Maria Cristina Terreros   *e-mail:* terrerom@fiu.edu

Office: OE 219

Office hours: *Monday 1:00-3:00pm and Wednesday 1:00pm - 3:00pm.*
Students should contact Dr Terreros by e-mail (terrerom@fiu.edu) to make an
appointment.

Credit hours: *3* hours

Course objectives: MCB 4503 is a course designed to facilitate an understanding of
the molecular details governing viral replication, and the virus cell interactions that
underlie specific disease processes. The course will encompass a discussion of viruses
that infect organisms of all domains of life, but will primarily focus on the viruses that
infect human beings and other metazoan animals. The course will specifically
emphasize the molecular genetics underlying the replication cycles of the seven major
classes of viruses. Additionally, the role of the virus: host interaction as it relates to
immune modulation and pathogenesis will be explored.

Text Book: Virology: principles and applications by J. B. Carter and V. A. Saunders,
2007. John Wiley and Sons, Ltd.

Course Requirements: This course comprises vast amounts of material. As such,
success requires significant extracurricular reading and regular class attendance.
Students are responsible for all assigned readings and all material presented in class.

Any and all communications from the instructor to students will be done utilizing the FIU
e-mail system. (If you utilize a different e-mail service, it is your responsibility to link
your e-mail account to the FIU system).

Course schedule:

 Week 1   Introduction, course overview and syllabus.

Week 2   Viruses and their importance. Methods used in virology. Virus structure

              Homework assignment

Week 3   Virus transmission. Attachment and entry of viruses into cells. Transcription,

translation and transport. Virus genome replication.

Week 4   Assembly and exit of virions from cells. Outcomes of infection for the host.

Classification and nomenclature of the virus.

Week 5   Exam 1, . HWA

Week 6   Herpesviruses. Parvoviruses.

Week 7   Reoviruses, Picornaviruses, Rhabdoviruses

Week 8   Exam 2, HWA

Week 9   Retroviruses, human immunodeficiency viruses. Hepadnaviruses, Origin and evolution of viruses. Emerging viruses. Virus and cancer.

Week 10   Exam 3. HWA

Week 11   Presentations

Week 12   Presentations

Week 13   Presentations

Week 14   Presentations

Useful websites for up-to-date viral disease information are the U.S. Centers for Disease Control and Prevention (including its journal *Emerging Infectious Diseases*) and the World Health Organization. There are many journals publishing new virology research; the ones we will use the most in the course are *Science* , *Nature*, *Journal of Virology* , *Journal of General Virology* , *Virology* , and *Journal of Infectious Diseases*.

<h2 style="text-align:center;color:purple;">JOURNAL ARTICLE PRESENTATIONS
Signing up for dates and articles</h2>

I will need to know the requested date of your presentation and the citation (title, first author, month) of the article. These presentations will be from early October through middle November.

Choose any virus article you wish in a 2010 issue of any of the journals listed on the course syllabus. When you choose this article, I will need to know the full reference (such as "Smith *et al*., "Effect of drug X on replication of virus Y", *Journal name*, date, pages). **There will be three 15 minute presentations per day. You may reserve your date before you have chosen your article, if you wish.**

Perfomance Measures:

Students will be evaluated on the following:

- Exam 1   20%
- Exam 2   20%
- Exam 3   20%
- Homework Assignments   20%
- Presentations   20%

Three multiple choice exams will be given. Each exam will cover all the lectures which have been assigned prior to each exam.

There is NO make up for exams, except for documented medical emergencies. NO MAKE-UPS ARE GIVEN FOR MISSED PRESENTATIONS.

Asssignments
 Students will be asked to submit several homework assignments during the course semester. Essay assignments will be no more than 3 pages in length (double spaced, 1 inch margins, times new roman).

Perfect attendance to the lectures: Five (5) extra points will be added to the final grade. In order to get the extra points you have to sign in every lecture with your panther ID at hand.

 Perfect attendance allows just one absence. You can use this absence for any interview, medical emergency, jury service, etc., because the 5 extra points is a **reward**, if you have more than one absence you lose the 5 extra points. It means that, you can have 5 extra points or nothing.

You will be evaluated using the following scale:

1.0	A= 92.6-100%	2.0	C= 72.6-76.5%
3.67	A-= 89.6-92.5%	1.67	C-= 69.6-72.5%
3.33	B+= 86.6-89.5%	1.33	D+= 66.6-69.5%
3.00	B= 82.6-86.5%	1.00	D= 62.6-66.5%
2.67	B-= 79.6-82.5%	0.67	D-= 59.6-62.5%
2.33	C+= 76.6-79.5%	0.00	F= 59.5% or below

ACADEMIC MISCONDUCT
All students in this class are expected to abide by the university's Code of Academic Integrity, which states:

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of Florida International University.

As a student of this university:

I will be honest in my academic endeavors.

I will not represent someone else's work as my own.

I will not cheat, nor will I aid in another's cheating.

All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

NOTE: This syllabus is subject to change. Please check the on-line syllabus often for modifications. Also, changes or modifications will be announced during the lectures.