## Viral Zoonoses POPH/MIBO 4650/6650

## Fall Semester, Tuesday and Thursday 11-12:15 Course Coordinators: García, Jackwood & Karls

| Lectures and Exams                        | Assigned<br>Reading | Instructor        |
|---|---------------------|-------------------|
| Introduction & Taxonomy                   | Chp 1 & 5           | Karls             |
| Viral Genomes and Structure               | Chp. 5 & 6          | Karls             |
| Immunology                                | Chp 7 & 8           | Karls             |
| Cell Biology & Paper Discussion           | Chp 13 &            | Karls             |
|   | paper               |                   |
| Viral Entry & Replication                 | Chp 2 & 6           | Jackwood          |
| Viral Evolution                           | Lecture             | Jackwood          |
| Diagnosis and Quantification of viruses   | Chp 9, 10,          | García            |
|   | 11, 12              |                   |
| Diagnosis and Quantification of viruses   | Chp 9, 10,          | García            |
|   | 11, 12              |                   |
| 1rst Exam (8 lectures & paper)            |                     | Karls             |
| Molecular Virology                        | Chp 22              | Jackwood          |
| Molecular Virology                        | Chp 22              | García            |
| Parvo, Polyoma, Papillomaviruses          | Chp 17 & 18         | García            |
| Herpesvirus/ Poxvirus/Adenovirus          | Chp 17 & 18         | García            |
| Herpesvirus/ Poxvirus/Adenovirus          | Chp 16 & 17         | García            |
| 2 <sup>nd</sup> Exam (5 lectures & paper) |                     | García            |
| Picornaviruses, Flaviviruses, Togaviruses | Pg 246 - 263        | Mundt             |
| West Nile virus                           | Lecture             | Stalcknecht       |
| Coronaviruses                             | Pg 263 - 266        | Jackwood          |
| Coronaviruses (SARS)                      | Lecture             | Jackwood          |
| Orthomyxoviruses                          | Pg 283 - 288        | Pantin-Jackwood   |
| Avian Influenza                           | Lecture             | Pantin-Jackwood   |
| Reoviruses and Rotaviruses                | Chp 15              | Mundt             |
| Reverse Genetics                          | Lecture             | Mundt             |
| 3 <sup>rd</sup> Exam (8 lectures)         |                     | Jackwood          |
| Paramyxoviruses, Filoviruses, Boraviruses | Pg 288 - 292        | Fu                |
| Rabdhoviruses (Rabies)                    | Lecture             | Fu                |
| Retroviruses                              | Chap 19             | Zavala            |
| Bioinformatics                            | Chap 24             | Jackwood          |
| Antivirals/Vaccines                       | Lecture             | Jackwood          |
| Graduate Students Presentations           |                     | García & Jackwood |
| Final Exam (5 lectures) 12- 3 pm          |                     | Instructors       |

**COURSE OBJECTIVES OR EXPECTED LEARNING OUTCOMES** The objective of this course is to familiarize undergraduate and graduate students with classification, replication, quantification, pathogenesis, epidemiology and molecular tools of virus in general with emphasis in zoonotic viruses.

Graduate students will be required to present the findings of a research paper as a 15 minute oral presentation in the course. You must submit the paper/topic to Dr. García for approval and the powerpoint presentation must be submitted to Dr. Jackwood for review before it can be presented. Graduate students will have additional questions on the work sheets and exams that will require more in depth understanding of the material.

## **GRADING SYSTEM:**

Grade Scale: A 100-93, A- 92-90, B+ 89-87, B 86-83, B- 82-80, C+ 79-77, C 76-73, C- 72-70, D+ 69-67, D 66-63, D- 62-60, F <60. Note: grades ending in >.5 round up to the next whole number, e.g. 92.6 rounds to 93, but 92.5 counts as 92.

**Undergraduates** 3 exams + Final exam = 80%

3 work sheets = 15% Class participation = 5%

Graduates 3 exams + Final = 70%

3 work sheets = 15% 1 presentation= 10% Class participation = 5%

If you miss an exam (unexcused), that is scored as a zero. Make-up exams for excused absences must be arranged with the professor giving the exam (see syllabus) well in advance for University-approved absences or the day of return from an illness (Doctor's excuse is required for **full period of absence**). Exams may have a mix of short answer, discussion, multiple choice, and fill-in tables. You must use a pen to take the exams or you cannot request a re-grade. Re-grading must be requested in writing with an explanation of the reason that re-grading is needed within 7 days after the exam is returned to the class.

**READING ASSIGNMENTS:** Reading assignments from the required text bood, **Basic Virology**, **3rd Edition**, **E. K Wagner**, **M. J. Hewlett**, **D, C. Bloom**, **and D. Camerini**. **Blackwell Publishing**, are listed on the syllabus. The assigned research articles will be posted on the e-Learning Commons site for the course.

There are no designated office hours for the Instructors; you may set up appointments with the Faculty by e-mail (Please do not just drop by our offices!):

Dr. Garcia mcgarcia@uga.edu

Dr. Jackwood mjackwoo@uga.edu

Dr. Karls akarls@uga.edu

Powerpoint slides for each lecture will be posted to the e-Learning Commons (<a href="http://elc.uga.edu/">http://elc.uga.edu/</a>). Note that there is significant material covered in lectures that is NOT in the textbook or the posted ppt. Therefore it is essential that you attend lectures and take notes to fully understand the material for this course. Remember, participation in class is 5% of your grade.

All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. <a href="http://www.uga.edu/ovpi/academic\_honesty/academic\_honesty.htm">http://www.uga.edu/ovpi/academic\_honesty.htm</a>

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.