

Valdosta State University
BIOL 3860 Emerging Infectious Diseases
Summer 2018

Instructor: Dr. Eric W. Chambers

Lecture hours: 8:00 – 10:35 am MTWRF, BSC Room 1024

Office Hours: 11:00 – 12:00 MW, BSC Room 2214

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Text:

(1) Emerging Infectious Diseases: A Guide to Diseases, Causative Agents, and Surveillance by Lisa A. Beltz, Jossey-Bass ISBN: 0470398035

(2) Primary literature dealing with emerging infectious diseases. These will be available to students through Blazeview.

Course Description: This course will explore the growing problem of emerging infectious diseases. Old foes of humanity such as malaria, influenza, tuberculosis, dengue and yellow fever are re-emerging with a vengeance while a host of new diseases such as AIDS, SARS, Ebola virus, Nipah virus, and others are emerging. The epidemiology of these diseases is highly complex and is linked to changes in animal and vector populations and the environment as well as socio-political and demographic changes worldwide. In this course we will seek to understand the biology of selected disease pathogens and how the aforementioned factors impact disease transmission. Current, as well as proposed, methods of control will be explored. The potential of these pathogens for use as agents of bioterrorism will also be discussed.

Course goals: The purpose of this course is to provide you with a broad introduction to infectious disease agents. Upon completion of this course you will be familiar with major global emerging infectious diseases. You will become familiar with the causative agents of each disease as well as with their associated vectors. The manifestation of disease symptoms will be addressed including the molecular basis of infection. You will be introduced to the symptoms associated with each disease and you will learn how the human immune system responds to infection. You will also become acquainted with the diagnosis, treatment, and prevention of the diseases covered in the course. You will learn the factors associated with transmission of these diseases and the important role of disease surveillance. Finally, you will be familiar with those agents that could be employed as agents of bioterrorism.

This course will serve as an excellent introductory course in infectious diseases for students who will be pursuing future graduate studies in Biology as well as for those who will be pursuing careers in medicine and public health.

Students with disabilities: Students requiring special accommodations because of disability should discuss their needs with me as soon as possible. Those needing accommodations that are not registered with the Special Services Program must contact the Access Office for Students with Disabilities located in Farber Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty).

Procedure for exams:

No books, electronic devices, or notebooks will be allowed during exams and students using such items will be asked to leave and will receive a zero for the exam.

Cell phones must be turned off and they must be out of sight during the exam time

Students will remove hats and hoods during exam.

Students cannot wear headphones during the exam

No talking will be allowed during the exam, but students are permitted to

- 5) What were the results of the study? Summarize all the key findings.
- 6) Do the results justify the author's conclusions? Do you agree with the conclusions that the authors reached?
- 7) What might be some follow-up experiments that the researchers could perform?

Spelling and grammar will count!! **There will be a 10% reduction in grade for each day the assignment is late.**

Summer 2018 TENTATIVE LECTURE SCHEDULE

Topics	Chapters

**VALDOSTA STATE UNIVERSITY GENERAL EDUCATIONAL OUTCOMES
(GEO)**

4. Students will express themselves clearly, logically and precisely in writing and in speaking, and they will demonstrate competence in reading and listening. They will display the ability to write coherently in standard English; to speak well; to read, to understand, and to interpret the content of written materials in various disciplines; and to listen effectively and to understand different modes of communication.

7. Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written and visual materials. They will be skilled in inquiry, logical reasoning, and critical analysis. They will be able to acquire and evaluate relevant information, analyze arguments, synthesize facts and information, and offer logical arguments leading to creative solutions to problems.