

## **ANFS 432 – DISEASE PATHOGENESIS IN ANIMALS SPRING SEMESTER**

### ***Course Description:***

An introduction to host (immunological/physiological/genetic) and environmental (microbes/toxins/nutrition/temperature/others) factors which contribute to disease pathogenesis in animals. Encompasses microbial infections, allergic responses, autoimmunity, malignancy, organ-specific syndromes, the stress response, and aging. (3 CREDITS)

### ***Prerequisites:***

BISC 208 or ANFS 332, or permission of the instructor.

Basic concepts in anatomy, structure, and function will be useful for this course. The instructor will assume that the students are familiar with these concepts.

### ***Textbook:***

There is no assigned textbook for this course. Most of the course material originates from current papers/review articles in various scientific journals, as well as internet resources and other media sources. This information will be made available through Sakai.

### ***Professor and Office Hours:***

Dr. Marlene G. Emará

Department of Animal & Food Sciences

037 Townsend Hall

Newark, DE 19716

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**Office hours :** MTWRF – by appointment. The professor maintains an "open-door" policy. Drop-in visits are also welcomed.

### ***Course Objectives and Learning Goals:***

ANFS 432 “Disease Pathogenesis in Animals” is open to junior- and senior-level undergraduates who are interested in learning and discussing events that contribute to the disease process. The specific objectives, with associated learning outcomes include:

1. To engage students in the topic of “Disease Pathogenesis”, with an emphasis on current, select disease problems in animals.

ANFS Learning Goals - "Students will demonstrate knowledge of the major core concepts in the animal and food sciences, specifically in Disease Pathogenesis".

UD Gen. Ed. Goals - "Develop the intellectual curiosity, confidence, and engagement that will lead to lifelong learning".

2. To encourage independent thought and learning through participation in classroom discussions, related to “Disease Pathogenesis”.

ANFS Learning Goal - “Students will use critical thinking and reasoning, skeptical inquiry and scientific approach to solve current problems in animal disease pathogenesis”.

UD Gen. Ed. Goals - "Develop the ability to integrate academic knowledge with experiences that extend the boundaries of the classroom".

3. To enhance the student's oral and written communication skills.

ANFS Learning Goal – Students will demonstrate oral and written communication skills important for communicating scientific ideas.

UD Gen. Ed. Goal - "Attain effective skills in (a) oral and (b) written communication, (c) quantitative reasoning, and (d) the use of information technology".

NOTE: The University of Delaware's General Education goals can be found at <http://www2.udel.edu/gened/>. The Department of Animal & Food Sciences' mission and learning goals can be found at <http://canr.udel.edu/program-assessment/>.

### ***Course Policies:***

1. The format of the course is LECTURE and DISCUSSIONS. There will be two lectures each week (Tu/Th 2:00 – 3:15 PM). Six lecture meeting times are reserved for discussion sessions (see course outline).
2. The class will meet in 002 Townsend Hall. PREREQ: BISC208 or ANFS332.
3. This course is managed through UD-Sakai ( <http://www.udel.edu/sakai/portal>). The course syllabus, lecture outline, PowerPoint presentations, discussion resources, and additional information/web links will be provided through this management system.
4. The lectures are separated into three sections (see course outline); coincidentally, there are three exams for the course; each exam will only cover the course materials in a specific section. Therefore, the last exam is NOT comprehensive.
5. Disruptive classroom behavior should be avoided. Please make sure that your cell phone is turned off. Laptops are allowed for viewing PowerPoint slides and taking notes. If you are late for class, enter quietly. If you are late for class, enter quietly. Limit conversations with your neighbor! Be considerate of your colleagues in the classroom.

### ***Disability Statement:***

Any student who thinks s/he has a need for accommodations based upon the impact of a disability should contact the professor as soon as possible. You should also contact the Office of Disabilities Support Services (325 Academy Street - Alison Hall, Suite 161; phone: 302-831-4643; [http:// www.udel.edu/DSS/](http://www.udel.edu/DSS/)) to coordinate appropriate accommodations.

### ***Academic Dishonesty:***

Academic dishonesty will not be tolerated. All students must be honest and forthright in their academic studies. To steal the works or ideas of another, to cheat on an assignment, or to allow or assist another to commit these acts corrupts the educational process. Students are expected to do their own work and neither give nor receive unauthorized assistance. Any violation of this standard must be reported to the Office of Student Conduct:

<http://www.udel.edu/stuguide/14-15/index.html>

***Discussion Sessions:***

There are 6 discussion sessions scheduled through the semester and the topics are listed in the course outline. The discussions are designed to enhance communication skills, as well as to encourage critical and independent thought from students. The professor will lead the discussions; however, all students will be expected to participate. Each student will be required to complete one oral and one written presentation.

Oral presentation – each student will prepare and present a PowerPoint slide presentation on a disease that is relevant to one of the discussion topics. The presentation may describe a particular disease, a current research article on a disease, a case study of a new or rare disease (perhaps with pictures), a current disease in the News, etc. The length for the oral presentation should be about 15 minutes; it should provide sufficient information to be understandable by the audience; and it will count for 15% of the final course grade. See the "Discussion Evaluation Criteria" in RESOURCES for additional grading expectations.

Written paper – each student is required to submit an in-depth written paper (overview/review) of a disease of their choice. The length of the written paper should be at least five pages (double-spaced) and it should include at least 5 references. It will count for 15% of the final course grade. The due date for the written paper is the last day of the semester. See the "Discussion Evaluation Criteria" in RESOURCES for additional grading expectations.

Participation (10% of final grade) – Each student will be required to evaluate the oral presentations of other students and provide feedback to the presenters. An evaluation form will be provided by the professor.

***Grading:***

<b><u>COURSE ITEM</u></b>	<b><u>% OF GRADE</u></b>
Exam 1	20
Exam 2	20
Exam 3	20
Oral Presentation	15
Written Paper	15
Participation	10
<b>TOTAL</b>	<b>100</b>

Grades will not be curved. A grading standard will be used for the final letter grade:

<b><u>PERCENTAGE</u></b>	<b><u>GRADE</u></b>
91 and higher	A
87-90	A-
83-86	B+
79-82	B
75-78	B-
71-74	C+
67-70	C
63-66	C-
59-62	D+
55-58	D
51-54	D-
50 and lower	F