

# **ANFS 467-017/087: Emergency Animal Management**

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## **Introduction**

You are coming home from riding your horse and suddenly you come across an accident. A two horse trailer has flipped over and emergency crews are beginning to respond. As a horse, pet, or similar owner, what steps should you do before hand?

A large hurricane is building strength offshore and is predicted to make landfall in your area. What steps should you do in advance of the predicted storm? What should you do during and after the storm?

Emergency Animal Management covers from individual events, such as a car accident, to mass events such as disease, weather, or human activity that can cause tremendous disruption to companion animals, animal agriculture, and other animals. All animals are at risk during a disaster or emergency. Animal health concerns can become human health concerns. Increasingly a One Health model in which human and animal health is managed cooperatively is used. Veterinarians, veterinary technicians, animal scientists, and others have a role in managing or participating in emergency animal management. This course will address concerns in livestock, companion animal, and specialty animals.

The course will discuss concepts like Technical Large Animal Emergency Rescue (TLAER), the PETs act, and how you should plan for your own animals in the event of an emergency.

This course will discuss Emergency Animal Management challenges from the perspective of a practicing veterinarian, an organization (federal, state, and/or local government, or industry), and animal owner.

Emergency response often utilizes a framework that includes surveillance, quarantine, treatment, disposal, and disinfection. In this course, we will discuss in detail the key concerns, issues, and how to implement the major stages involved in a response.

## **Instructor**

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## **Class Sections:**

ANFS 467-017:	Traditional, in person undergraduate
ANFS 467-027:	Online only undergraduate
ANFS 467-087:	In person honors undergraduate
ANFS 667-017:	Traditional, in person graduate

## **Class Hours**

Tuesday and Thursday 11:00 AM – 12:15 PM, 132 Townsend Hall

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## Office Hours

12:30 PM – 1:45 PM Tuesday, 242 Townsend Hall

*Additional office hours by appointment*

## Course Student Learning Objectives

1. Students will demonstrate knowledge and of the major core concepts of the emergency animal response framework and apply the elements to new situations
2. Students will be able to develop and justify an emergency animal response plan for livestock, companion, and/or specialty animals
3. Students will demonstrate written communication skills important for communicating written scientific ideas and operational management plans
4. Students will demonstrate oral communication skills important for communicating written scientific ideas and operational management plans
5. Students will use critical thinking and reasoning, skeptical inquiry, and scientific approach to analyze emergency animal management scenarios and develop emergency animal management response plans

## Program Student Objectives

This course is designed to be consistent with University of Delaware Animal and Food Science Curriculum Learning Goals and with University of Delaware General Education Goals (<http://www2.udel.edu/gened/>). Additional detail on how the course addresses the General Education and ANFS Learning goals is available under Sakai -> Resources -> Administrative.

## Textbook:

The primary text for the course is *Veterinary Disaster Response*, edited by Wingfield and Palmer. This textbook is oriented towards a practicing veterinarian and a bit like reading a bulleted Power Point slide, but is one of the best resources available. Specific reading assignments are posted on the course schedule. Students are encouraged to read (or at the very least, skim) the reading assignment prior to coming to lecture. Information in the text is 'fair game' for quizzes and examinations and students should read the text connected with each lecture. Lectures will be supplemented with additional reading assignments available through Sakai.

*Veterinary Disaster Response*

*Edited by: Wayne E. Wingfield and Sally E. Palmer*

*Wiley-Blackwell, 2009*

*ISBN: 978-0-8138-1014-0*

## Lectures:

Each lecture addresses one topic in the course. The course is not designed to just simply cover the book and as a result, the lectures add additional content not included in the textbook. In previous classes, over 90% students indicated that lecture attendance was

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required to be successful. Students should attend lecture, be alert, ask questions and be interested in the material.

### **Lecture Slides:**

Lecture slides will be posted on Sakai in a one slide per page and six slides per page Adobe PDF versions. Students are responsible for printing lecture notes.

The lecture will be recorded using Adobe Connect and made available for the traditional and online sections.

### **Guest Instructors:**

Several guest instructors will be either presenting via distance education or in person. Some of the guests instructors are, well, simply awesome. Students are expected to treat the guest instructors better than they would treat University of Delaware instructors. Material from the guest instructors may be included in assignments, quizzes and examinations.

### **Web site**

We will be using the Sakai course management system. Sakai is your portal for the course and it's as much of a place for students to post, comment, and exchange ideas as it a place for the instructor to upload content.

As the portal for the course, Sakai will be used to download and submit assignments, provide access to the lecture notes, supplemental readings, and other notes, as well as house the master class schedule. If you find links to other content relevant for the course, it's a place for you to post it so that the rest of the class can benefit.

All assignments that can be submitted through Sakai should be submitted through Sakai. Sakai requires several steps to complete the submission process. Make sure you have finished submitting the assignment before logging out. The Sakai grading system will be used to record grades.

All homework, projects, and completed information will be distributed through Sakai. For the major writing assignments, I would suggest turning in the assignments in paper form because it's much easier and faster to grade.

The website for the course is available through Sakai: [sakai.udel.edu](http://sakai.udel.edu)

### **Quizzes:**

There is normally a weekly quiz. The weekly quizzes cover from one week to the next and allow you to study smaller sections of material. Students in previous years indicated that this helped them to learn the material better than simply having ginormous exams. Quizzes are to be taken individually. There are enough quizzes that missing one or having a bad day for one quiz isn't the end of the world. Collectively, though, they are important and you would want to do well on them.

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For the online section, the quiz is to be taken online as well and includes an honor statement.

### **Exams:**

There will be two one hour and fifteen minute exams and a cumulative final. The cumulative final will be given during the final examination period. Students should plan to take the exams during the listed period. Make up examinations are at the discretion of the instructor and must be scheduled prior to the exam in question. Students with appropriate needs may take their examinations through the Office of Disability Support Services (DSS).

For the online section, the exams should be taken either by setting up a time to take the exam or through the continuing education office.

### **Student Conduct and Academic Honesty:**

Students are expected to take their education seriously. Unacceptable student behavior as outlined in the code of conduct (<http://www.udel.edu/stuguide/15-16/code.html>) will not be tolerated. Academic dishonesty will not be tolerated.

### **Coursework and Grading**

This class is structured to provide a variety of experiences and opportunity for the students. In general, there will be bi-weekly homework, a weekly quiz, two examinations and a cumulative final exam. The number of assignments gives the student a number of opportunities to learn and the instructor opportunities to give feedback on student learning. Weekly quizzes are designed to encourage regular review of the material and provide regular feedback to the student. The grading strategy in the course rewards consistent performance more than occasional acts of brilliance.

Grades for the course are determined based on how well students complete the assigned work and the progress they have made towards the course objectives. There is no set number of A grades or similarly. In 2013 and 2014, a lot of students had A or A- grades. There is no guarantee that that will happen again. Ideally, everyone in the class will finish with an A.

Your assignments are a reflection of you. The work should look professional, be easy for the reader to understand and contain the appropriate material.

Homework problems are designed to make students think about the concepts introduced in class. You may be required to find outside readings to complete the assignments. If you use outside readings, include the information (pdf copy if available, website if not) so that your response can be evaluated.

For 2015, this course will count as a second writing requirement for students in Animal and Food Science, Pre-veterinary Medicine and Animal Biosciences, and Food Science majors. Note, this satisfies the University and program requirements for a second writing course. This may or may not satisfy some veterinary schools since some schools

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mandate that they second writing course have an English department coding. Students from majors other than the ones listed should contact their academic advisor.

Four of the homework assignments (Foreign Animal Diseases, Avian Influenza, Depopulation, and Disposal) will require additional writing. The goal is to give you a chance to develop the plan, justify and defend your choice in writing. For one of the assignments (Avian Influenza), you will have the option to resubmit the assignment.

There is one comprehensive project in which each student will be responsible for developing an emergency response plan for the specified situation. For 2013 and 2014, students developed an emergency response plan for the University of Delaware Newark Farm. This assignment is expected to include significant writing, justification and support for your decision.

**Table 1.** Undergraduate grade composition (Section 017 and 027)

Item	Quantity	Total Value	Percent
Exams (2 hourly, 1 final)	3	350	47%
Project	1	150	20%
Homework	7	165	22%
Quizzes	8	80	11%
Total		745	

This course also includes an Honors section (087). Students in the Honors section have slight differences on several of the assignments and have an additional honors project.

**Table 2.** Honors grade composition (ANFS 467-087)

Item	Quantity	Total Value	Percent
Exams (2 hourly, 1 final)	3	350	40%
Project	1	150	18%
Homework	7	165	20%
Quizzes	8	80	9%
Honors Project		100	12%
Total		845	

**Table 3.** Graduate grade composition (ANFS 667-017)

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Item	Quantity	Total Value	Percent
Exams (2 hourly, 1 final)	3	350	40%
Project	1	150	18%
Homework	7	165	20%
Quizzes	8	80	9%
Graduate Project		100	12%
Total		845	

The instructor reserves the right to alter the number or value of assignments when the assignments are released. Assignments will be posted through Sakai.

There will be several extra credit assignments available. Extra credit is optional.

The overall grade is based on the student's total number of points divided by the maximum number of points available. The grading scale is shown in Table 3. The table represents the minimum grade required to achieve a given grade.

**Table 3.** Grading scale

A	100% - 92%	B-	81% - 79%	D+	68% - 67%
A-	91% - 89%	C+	78% - 77%	D	66% - 62%
B+	88% - 87%	C	76% - 72%	D-	61% - 59%
B	86% - 82%	C-	71% - 69%	F	< 58%

### Authorized Use of Materials

The University of Delaware owns a non-exclusive right to faculty materials that will be given to you during the course. These materials include ideas and comments provided by the instructor during class; test questions; handouts and course materials; and other materials representing the copyright-protected intellectual property of course instructors. You are prohibited from entering into relationships with web sites such as Course Hero, Notehall, or similar sites under which you agree, in exchange for the payment of a fee or salary, to post these materials online. Violations of this prohibition will be referred to the Student Conduct Office for investigation and disciplinary action under UD's Code of Conduct (<http://www.udel.edu/stuguide/15-16/code.html>).

### Service Animals or Service Animals in Training

Service animals and service animals in training are welcome in class. We like dogs. Dogs are good people. There are no restrictions on documented service animals. For service animals in training, there are a few specific class sessions where we may ask that the service dogs in training not attend lecture because of the planned activities.

### Overview of Topics

An overview of the topics and schedule are presented below. An updated schedule with assignment due dates is available on the class Sakai page. The web schedule will serve

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as the master schedule; when in doubt, refer to the schedule. Reading assignments listed are chapters in Wingfield and Palmer.

Week	Topics
Week 1	Introduction; Weather
Week 2	Fire; FAD
Week 3	Avian Influenza; Foot and Mouth Disease
Week 4	ICS and Personal Protective Equipment
Week 5	Surveillance and Situational Awareness; Biosecurity as a Prevention Tool
Week 6	Biosecurity as a Response Tool; Quarantine, Movement restrictions, Vaccination and Treatment
Week 7	Guest lecture: VMAT's and One Health; Exam 1
Week 8	Chemical methods of depopulation; Physical methods of depopulation
Week 9	Foam Depopulation; Carcass Disposal
Week 10	Cleaning and Disinfection; Planning and Preparation
Week 11	Guest Lecture: Emergency Animal Medicine; Exam 2
Week 12	Guest Lecture: Bioterrorism/ag defense; Evacuation and Evacuation Preparedness
Week 13	No Class – Thanksgiving
Week 14	Technical Large Animal Rescue; Working Animals
Week 15	Case Study; Wrap up