

# Faculty First Grant Report - 2015

Modernizing Two Stale Online Courses  
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## Project Overview and Course Overview

CEM 507 (Epidemiology of Vector-Borne, Bacterial, and Viral Zoonotic Diseases) and CEM 508 (Epidemiology of Parasitic, Foodborne, and Bacterial Zoonotic Diseases) are electives for students majoring in veterinary medicine (DVM), public health (MPH), Comparative and Experimental Medicine (MS or PhD), and other graduate programs. Successfully completing at least one of these courses is also a requirement for students pursuing the graduate certificate in food safety. In addition, the courses are available for training professionals at the Tennessee Department of Health enrolled in the Applied Epidemiology Certificate Program.

I inherited these online courses and the format has been rather cumbersome and not user-friendly. My goal with this grant was to make the courses (starting with 507) more user-friendly and add interactive components such as web discussions.

## Semesters the course has been and/or will be taught

CEM 507 is offered during the summer semester of odd number years; CEM 508 is offered during the semester of even number years.

## Number of students affected

Typically 7-15 students enroll in either CEM 507 or 508 each year. The courses alternate being offered during the full summer semester.

## Project outcomes and products

Through the grant, all modules were updated and video lectures were included as part of the course material. These videos were loaded onto a private YouTube channel so they could be used for other courses as well. Previously, there were no videos so all material was read by the students. We also added a web discussion on a topic related to one of the modules. This was required but encouraged students to interact with each other online.

Links to a few lecture videos on YouTube:

[Hantavirus](https://www.youtube.com/watch?v=qjvP72YbI4Y)

<https://www.youtube.com/watch?v=qjvP72YbI4Y>

[Rabies](https://www.youtube.com/watch?v=JmfJT45W8cl)

<https://www.youtube.com/watch?v=JmfJT45W8cl>

[RVF Chik Dengue](https://www.youtube.com/watch?v=rUfODFcyfug)  
(<https://www.youtube.com/watch?v=rUfODFcyfug>)

Course materials from two different modules have also been submitted with this report. These are typical examples of material provided to students.

### **Student Evaluation**

I have already used the material developed for CEM 507 when the course was offered summer 2015. The other course, CEM 508, will not be offered until next year and is going to be coordinated by a new faculty member. Hopefully, he can also benefit from collaborating with OIT to improve course material delivery.

In general, all students did very well in the class and had an easy time following the schedule throughout the semester. For the student evaluation, the course received a 4.0/5 for "Distance Learning Course as a whole", and a 3.8/5 for "effectiveness of distance learning format". These numbers are not as high as for my in-person taught courses but are still decent. I would be curious to know what the evaluations look like for other online courses at the university.

Students often state that my online courses require more work than they expected, but with an online format they must take the initiative in some learning objectives. I don't think this will change with future online courses.

### **Project benefits for the department and UT**

By re-working the content delivery for this course, students were given more than a single modality to learn information. This aids students that might learn better through listening as opposed to reading. Multiple modalities of content delivery can improve the overall learning of students making it more appealing. Because of the improved delivery, the course may also be appealing to students at other universities or for professionals seeking continuing education.

### **Conclusion**

This project did meet my goals although I would still like to make some additional changes for future offerings. It would be good to increase the interactive nature of the course to keep students engaged, but I prefer the offering to be asynchronous because of summer schedules. So, it might be difficult to get everyone online at the same time.

I learned a number of ways to improve online course delivery while working with Theresa Swann and I will use these skills in the development of a new online course I will be offering spring 2016. I am also planning on using these skills to deliver material for in-person classes that I teach to reduce the amount of time students must sit in the lecture hall. If I can record lectures in advance, students can watch them and then we can discuss the material. Hopefully a flipped classroom can work in the DVM curriculum.