



VME 6771 Veterinary Epidemiologic Research  
3 credits; Class 27756  
Fall 2021

Revision: May 11, 2021

**Course description**

Design, analysis and interpretation of experimental and observational studies in populations.

**Student learning outcomes**

- The student will examine different research methods used in experimental and observational studies.
- The student will analyze and critique published experimental and observational studies.
- The student will apply common statistical techniques required in various types of experimental or observational studies.
- The student will prepare and submit two research protocols (ie, clinical trial and cross-sectional study) for evaluation and feedback.
- The student will deliver two twelve-minute oral presentations describing her/his research protocol to peer-students and the course instructor.

**Pre-requisites**

- Must be a graduate student at the University of Florida.
- Must be registered in the course (3 credits).
- Laptop with wireless internet capability.

**Course format**

The class will meet Tuesdays and Thursdays in **Deriso Hall Paul Nicoletti's conference room** (see schedule below). In general, the course will consist of (1) lectures on the principles of epidemiologic study designs (clinical trials, cross-sectional studies, case-control studies, and cohort studies); (2) discussion of published experimental and observational studies; (3) instruction in basic analysis of epidemiologic data; (4) design of experimental and observational studies by the student; and (5) twelve-minute oral presentation by each student. For the discussions of published experimental and observational studies, please read the assigned papers before class. Guidelines to assist you in the preparation of the study designs will be provided. The project assignments should be typed double-spaced and be no longer than six pages (plus references).

Tentative Course Schedule – Fall 2021

Day	Date	Time*	Topic	Presenter	IU	
Th	8/26	12.50-1.40 & 1.55-2.45	Introduction to the course	JH	1-2	
T	31		Cancer detectives of Lin Xian	JH	3-4	
Th	9/2		Sampling & sample size	JH	5-6	
T	7		Comp Lab 1: sample size calculations	JH	7-8	
Th	9		Evaluation of diagnostic tests	JH	9-10	
T	14		Comp Lab 2: evaluation of diagnostic tests	JH	11-12	
Th	16		My research question of interest is?***	All	13-14	
T	21		Disease frequency & measures of association Confounding & interaction	TD	15-16	
Th	23		Clinical trials	JH	17-18	
T	28		Journal Club: clinical trials***	Students	19-20	
Th	9/30		12.50-1.40	Review & study assignment (1)	JH	21
T	10/5		12.50-1.40 & 1.55-2.45	Statistical methods used in experimental and observational studies	TD	22-23
Th	7	Cross-sectional studies		JH	24-25	
T	12	Journal Club: cross-sectional studies***		Students	26-27	
Th	14	Case-control studies		JH	28-29	
T	19	Journal Club: case-control studies***		Students	30-31	
Th	21	Review & study assignment (2)		JH	32-33	
T	26	<b>Student oral presentations</b> <b>Clinical trial assignment is due today</b>		All	34-35	
Th	28	Comp Lab 3: basic instruction in data analysis		JH	36-37	
T	11/2	Cohort studies		JH	38-39	
Th	4	Journal Club: cohort studies***		Students	40-41	
T	9	Scientific Writing Unpublished research is not research		JH	42-43	
Th	11	Veterans Day				
T	16	No class today Time to prepare project assignment No. 2				
Th	18	<b>Student oral presentations</b> <b>Cross-sectional study assignment</b> <b>is due today</b>		All	44-45	

\*Periods 6 & 7 (12.50pm-1.40pm & 1.55pm-2.45pm)

\*\*This session is an opportunity for graduate students to present and discuss their research and to receive feedback from the instructor and peer-students. Students must prepare a 12-15 minute pptx presentation including the objective statement(s), proposed research approach, and study results—if available.

\*\*\*A research report will be selected for discussion. One student will be designated to lead the review of the report and group discussion.

## Office hours

Please e-mail to schedule an appointment.

## Recommended reading

- Dohoo I, Martin W, Stryhn H. Veterinary Epidemiologic Research. AVC Inc. Charlottetown. Prince Edward Island. Canada (2003).
- Gordis, L. Epidemiology. WB Saunders Company (2000).

## Grading

Students will formulate two research protocols that require methods used in clinical trials and cross-sectional studies. Each study design assignment will constitute 35% of the final grade. Completion of three computer lab exercises will be  $10 \times 3 = 30\%$ . Extra-credit points may be considered in the final course grade for students who show willingness to participate in class discussions. Course grade is non-competitive; course grades will be assigned based on the mastery of the material. I encourage you to talk with me to clarify any points of grading of study designs that you do not fully understand.

## Evaluation

93-100% = A	90-92% = A-	87-89% = B+	83-86% = B
80-82% = B-	77-79% = C+	73-76% = C	70-72% = C-
67-69% = D+	63-66% = D	60-62% = D-	< 60% = E

## Instructors

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