

Survey of Clinical & Translational Research

Summer Semester 2017

Dr. Erin Haynes

Course Overview & Requirements:

This self-paced course covers a wide variety of topics in clinical research, from interpreting regression and survival analysis to developing a successful relationship with a mentor. This course consists of 23 e-learning modules (Flash movies and HTML files) and 11 timed quizzes in Blackboard. The e-learning modules include audio, video, and interactive quiz questions (questions within the modules are not graded).

To receive full credit for this course, you must complete all 23 modules and 11 quizzes by July 31, 2017.

***Note:** This course is entirely self-directed—it is your responsibility to complete the modules and quizzes by the due date.

Contacts:

If you have a question about Blackboard or issues with the modules, please refer to the help documentation located in the Online Student Guide first (found in the Course Documents folder of this course's Blackboard site).

Additionally, Blackboard Support is available every day of the week at 513-556-1602 or blackboard@uc.edu.

For general questions, contact the CTR Training Program Coordinator, emma.jones@uc.edu

Technological Requirements:

Computer with speakers or headphones, Mozilla Firefox Internet Browser, Adobe Flash Player, Adobe Reader, Microsoft Word

Grading:

This course is graded on a pass/fail basis. To receive a "Pass" for this course, you must complete all 11 modules and all 9 Blackboard quizzes by 7/31/2017. If you do not, you may receive an "Incomplete" or "Fail" for the course.

E-learning Modules:

The modules are available in the **Modules** area in Blackboard and can be accessed by clicking the appropriate link. Each module will open in a new window, so make sure that you have pop-ups enabled in your Internet browser. You can complete the modules at your own pace and in any order, as long as you complete all of them by 7/31/2016. The loading time will vary depending upon your computer and the speed of your Internet connection.

Quizzes:

Eleven of the modules are accompanied by a brief quiz (1-5 questions). These are available in the **Quizzes** area in Blackboard. It is recommended that you complete the quiz immediately or soon after you view the corresponding module. **The quizzes are timed (15 minutes per quiz), and once you start the quiz, you must complete it. You are allowed two attempts at each quiz.** Each quiz question is worth 10 points.

***Note:** Use **Mozilla Firefox** for both the modules and the Blackboard quizzes.

Module Topics (all times are approximate):

1. Humanism (45 minutes)

After completing this module, you will be able to:

- Define humanism and identify the three patient domains that need to be considered by the physician
- List the Core Principles and Core Values related to the exhibition of humanism in medicine
- Identify specific behaviors that demonstrate sensitivity to patients' diverse needs

2. Ethics in Clinical Care (45 minutes)

Principles of medical practice:

- Ethical aspects of physician/patient relations
- Physician/patient family relationships
- Physician/society relationships
- Personal/professional impacts of grief

3. Research Ethics (1 hour)

This module covers:

- Conflicts of interest
- Misconduct
- Principles of Research with Human Subjects
- Principles of Consent and Assent
- Vulnerable Populations

4. Statistical Tests (1 hour)

After completing this module, you will be able to:

- Understand the difference between descriptive and inferential statistics
- Understand the difference between parametric and non-parametric statistical tests
- Understand the use of the t-test, paired and non-paired, ANOVA, and chi-square test
- Calculate and interpret relative risk and odds ratio
- Understand the uses and limitations of a correlation coefficient
- Identify when to apply and how to interpret regression and survival analysis

5. Causation (45 minutes)

After completing this module, you will be able to:

- Identify the difference between association and causation
- Identify factors that strengthen causal inference in observational studies

6. Specialized Research Designs (45 minutes)

After completing this module, you will be able to:

- Describe the characteristics of Phase I, II, III, and IV clinical trials
- State the difference between clinical vs. statistical significance
- Assess the validity of clinical trials
- Identify empirical reviews of research
- Apply research to clinical practice

7. Fundamentals of Measurement (45 minutes)

After completing this module, you will be able to:

- Identify and describe types of variables
- Identify and describe the four principal characteristics of distributions
- Understand how the type of variable and its distribution affects the choice of a statistical test
- Understand measures of central tendency
- Understand measures of variability

8. Seeking a Mentor (45 minutes)

After completing this module, you will be able to:

- Describe expectations from the mentoring relationship based on characteristics of successful relationships
- Determine the first step in approaching a prospective mentor
- Identify potential challenges and ways to avoid them

9. Preparing to be a Mentor (45 minutes)

After completing this module, you will be able to:

- Define mentoring and determine when mentoring is the best developmental option
- Utilize the mentoring model and tools to help engage in a mutually satisfying mentoring relationship
- Identify and address challenges that could surface in a mentoring relationship
- Determine measures to assess the effectiveness of the mentoring relationship

10. Review of Literature (30 minutes)

After completing this module, using the medical literature, you will be able to:

- Identify a clear, structured, searchable clinical question
- Identify the study design most likely to yield valid information
 - Diagnostic test
 - Benefits and/or harms of an intervention
 - Prognosis of a condition