

## HE220 Introduction to Health Data Analysis

Linn-Benton Community College

Winter 2020

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**Office Location/ Hours:** AC 109, Tues- Thurs 10:00 to 11:00 am (and by appointment)

### Course Description:

This is an introductory course to health data analysis and biostatistics that covers both descriptive and inferential statistics designed to provide a preparatory background for taking a subsequent course in epidemiology and biostatistics in a four-year degree program. This course will introduce probability and sampling distributions as the foundation for statistical inference; hypothesis testing, confidence intervals, chi-square distribution, and linear regression and correlation.

### Course Outcomes:

Upon successfully completing this course with a C or better, students will have completed the following measurable outcomes:

1. Examine the importance of biostatistics in public health and medical research.
2. Differentiate between observational and experimental studies and recognize the strengths and weaknesses of each type of study.
3. Recognize the basic limitations of statistical procedures and know when and how to use them appropriately.
4. Interpret statistical results, tables, and figures from public health and medical literature.
5. Distinguish and defend the use of appropriate statistical methods in current published public health research.

### Course Materials:

You will need the following textbook and materials to complete this class:

- Online access to text and presentations (Moodle)
- Computer access to Excel or another spreadsheet program
- A calculator with square root and exponential notations for this class. **No cell phone calculators allowed.**
- 3X5 Notecards

### Course Comments:

1. Out of respect for your classmates, and myself, no cell phones should be out in class. You may use your laptop for notes but if you are sending an email, chatting, etc., you will lose attendance points for that day.
2. I do accept late assignments – it is 10% off for each day late. After three days, you will get a zero grade, but I will still correct it so you have a study tool.
3. **I do not accept any assignments in the form of an email attachment.** You must submit all electronic work via homework submission slots on Moodle.

4. Students are expected to be honest and ethical in their academic work. Academic dishonesty is defined as an intentional act of deception in one of the following areas:
  - Cheating – use or attempted use of unauthorized materials, information or study aids
  - Fabrication – falsification or invention of any information
  - Assisting – helping another commit an act of academic dishonesty
  - Tampering – altering or interfering with evaluation instruments and documents
  - Plagiarism – representing the words or ideas of another person as one’s own
5. You should meet with your instructor during the first week of class if
  - You have a documented disability and need accommodations,
  - Your instructor needs to know medical information about you, or
  - You need special arrangements in the event of an emergency.
6. Students who may need accommodations due to documented disabilities, who have medical information that the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with the Center for Accessibility Resources (CFAR), please visit the [CFAR Website](#) for steps on how to apply for services or call 541-917-4789.
7. LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. (for further information <http://po.linnbenton.edu/BPsandARs/> ) Board Policy P1015
8. **Basic Needs:** Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Single Stop Office for support ([SinglestopatLBCC@linnbenton.edu](mailto:SinglestopatLBCC@linnbenton.edu) , 541-917- 4877, or visit us on the web [www.linnbenton.edu](http://www.linnbenton.edu) under student services for current students). Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

**Attendance:** It is very important that you not only attend but also participate in each class. If you miss a step during this class, it makes it difficult to complete the sequence of the data analysis. If your attendance falls below 70% you will not have the tools to successfully pass the class.

**Homework:** Homework is due every Tuesday at the start of class (11:30 am). All assignments are on Moodle from the first day of class, no work will be added. You do not have to submit your work on Moodle unless it is a specified Excel file. If you miss the class when homework is due, you still need to submit your work on time. There are suggestions on how to submit handwritten work in Moodle at the top of your course page.

**Group Synthesis:** Throughout the term, you will be asked to work in a group in class to increase the synthesis of the material and the learning outcomes. There will be no make-ups for missed group work.

**Exams:** Your only exam in this class is a take-home exam.

**Please Note:**

- Tutors are available! You can sign up for tutoring online, in Willamette Hall, WH-226 or call (541) 917-4684. Make sure you specify it is for HE220.