

INSTRUCTIONAL SYLLABUS

COURSE

BSC 257H-01, Statistics for Health Professionals, Spring 2020

INSTRUCTOR

Kris Vasquez, Ph.D., Kris.Vasquez@alverno.edu

REQUIRED TEXTS AND MATERIALS

The text for the class is *Intuitive Biostatistics: A Nonmathematical Guide to Statistical Thinking 4th Edition*, by Harvey Motulsky.

COURSE DESCRIPTION

This course introduces the student to statistical thinking for the health sciences. The student practices choosing and interpreting common inferential statistical tests, deciphering scholarly journal presentations of study results, conveying the results of analyses clearly to others, and recognizing common fallacies in the use of statistics.

COURSE OUTCOMES

By the end of this course, you will be able to:

1. explain the theoretical basis for the use of statistics in hypothesis testing;
2. identify levels of measurement and choose appropriate tests for those types of data;
3. interpret analyses that describe the characteristics of a sample, and explain what can and cannot be inferred from such analyses;
4. interpret inferential statistics, including t-tests, ANOVA, correlation, regression, and odds ratios;
5. apply the results of an inferential analysis in order to answer a research question;
6. communicate the results of a study clearly to others, who may or may not be familiar with health research.

COURSE EXPECTATIONS

Contacting Your Instructor

The best way to reach me is via email. We can also chat via Zoom, but to set up a time

to do so, you want to start with email. My email address is kris.vasquez@alverno.edu. I will respond within 2 business days during the duration of the class. Exceptions to this time frame will be announced in advance.

Assignment Submissions

You will complete quizzes and submit assignments via Moodle.

Feedback

You should expect feedback on submitted assignments within 2 business days of the due date. Feedback on quizzes is instantaneous. Feedback is delivered via Moodle. It is your responsibility to check for feedback.

Attendance

This class does not contain any synchronous activities for which attendance is required. You may pace yourself through the class. Please be aware that keeping to the schedule as much as possible is a major key to successful completion of the class.

Additional College Policies

You will be expected to adhere to policies specified in the student handbook as well as the following. Please review them to be sure you understand what is expected of you.

- [Copyright Policy](#)
- [Technology Use Policy](#)
- [Student Handbook](#) – Policies regarding email, academic honesty, and professional behavior
- [Netiquette Suggestions](#)

College Resources

The following resources may be useful to you in this class.

- [Technical support](#)
- [Academic support](#)
- [Disability Services](#)

COURSE ACTIVITIES

Assignments/Assessments

Quizzes are delivered via Moodle. There are 8 quizzes worth a total of 24% of your grade, so each individual quiz is a very small part of your overall performance. The quizzes are open-resource (you may use your text, notes, the course videos during the quiz) and have no time limit. These low-stakes quizzes are designed to help you and me

identify areas of the week's content where you may not yet have a clear understanding. If you don't perform well on the quizzes, don't worry too much about it, but do contact me to try to clarify any areas of confusion. You should not need to spend more than about 15 minutes on a quiz—if you are struggling with it for longer than that, stop and review the reading and videos, check the Q&A forum, or contact me.

There are 6 written assignments worth a total of 76% of your grade, where the final capstone assignment counts for slightly more than the preceding assignments. The written assignments ask you to interpret and apply the material that we have learned during the week. These assignments may not be long in terms of the amount of text on the page, but should represent significant thought, careful application, and specific connections to course material. Assignments are found on Moodle and are submitted via Moodle. If you have significant difficulty with a written assignment, I may request revision. Revised assignments can recoup up to half of the point deficit on the original assignment. For example, if you got 70% on the assignment, you missed 30%, so can gain back 15% in revision.

Quizzes not completed by the deadline are scored as 0. Written assignments not submitted by the deadline lose 10% per day late. Late assignments cannot be revised. If revisions are required for on-time assignments, a separate revision deadline will attach to any requested revisions, so late penalties do not start from the original deadline.

A total course score of 80% is required to pass the course.

Calendar

The course is divided into 8 modules with the idea that if you complete one module per week, you will finish the course within the allowed 8 weeks.

If you fall behind in the class, you may work to catch up as long as the class is still in session. I do not recommend planning on this strategy. Note that late penalties will apply for the written assignments, so if you fall far enough behind, it may not be possible to get to a passing mark even if the class is still in session. Once the class ends, any missing quizzes or assignments will be scored as 0 and your final progress will be determined accordingly.

The 8 modules contain the following components: a preview of the readings, a list of the assigned readings, a few self-check questions on the readings, videos, quizzes (except module 8), and written assignment instructions (except modules 1 and 4). You can find the modules on Moodle.