Fairhaven College
Of Interdisciplinary Studies
Course Evaluations and Assessments

Evaluations for: Jennifer Marlene Fenswick
Quarter/Year: Winter 2016
Instructor: Hilary Megan Schwandt
Course number and title: FAIR 232P User-Friendly Statistics

Course Description
Statistics are all around us every day--in the media, research, political decisions, and public debate. Statistics are used, and sometimes abused, in nearly every debate. At times we may be deceived by an improper use of statistics or by our own uncritical acceptance, and find ourselves believing or acting on a false claim. At other times, we may be so saturated with statistics or so cynical about their reliability that we just dismiss them.

The objective of this class is to help develop a stronger critical understanding of statistics and statistical arguments, their strengths and weaknesses, uses and abuses, to diminish the chance of being deceived by them and to increase confidence in dealing with them. Through examples, exercises, case studies, and projects linked to real-world realms of interest such as social, environmental, and health issues, we will gain familiarity with terms, concepts, and techniques ranging from hypothesis testing to graphing.

In this class we will link with the 206A: Population, Health, and the Environment course taught in the same quarter. Statistics students will be paired with 206A students to work on a group research project. The statistics students will serve as mentors to the 206A students in regards to the statistical aspects of the group research project.

Student Self-evaluation
My Goals: My initial perception of statistics was that the myriad complexities associated with the discipline could not be more alien (or intimidating) to me. However, from the outset I resolved to develop a basic set of critical thinking skills around statistics in order to understand how they are gathered, manipulated, interpreted, evaluated, and communicated.

What I did: The main project was to produce a collaborative scientific research paper/presentation with a student from 206A class. We developed a research question (Is there a correlation between a student’s exposure to arts education received during their K-12 years, and their pursuit of art course(s) at Western Washington University?). We created an alternative hypothesis and a null hypothesis. We crafted two study questions that were included in a class survey that was made available February 16 – 19, 2016 on Qualtirics. Using Microsoft Excel we cleaned the data, netting 228 responses. After studying and testing the data, we created a 2,500-word scientific paper that included an abstract, introduction, methods, discussion, main findings, conclusion, implications, and citations sections, and corresponding charts and tables. We also produced and presented a PowerPoint presentation describing our project and findings. The result: we rejected our null hypothesis.
What I learned: I learned a lot about a broad range of statistics-related topics including: grouping, summarizing, and displaying data; mean, median, mode, range; standard deviation, rounding, skew, and outliers; central limit theorem; continuous and categorical variables; hypothesis testing; Ho, Ha; P-value; methods; degrees of freedom; alpha value; population standard deviation; t tests; z tests; one and two sample mean tests; critical value; chi square test; calculated value, observed vale, expected value; how and what variables to chart; dichotomizing variables, and what a 95% confidence interval is. I also learned how to identify and explain a study’s strengths, limitations, and results.
Attendance and participation: My attendance was 100%, as was my participation. I fully engaged in all in-class discussions, project reviews, and brainstorming sessions. I provided feedback when appropriate, and did not hesitate to seek clarity in class (vs. one-to-one) so the entire class could benefit from the answers.
Challenges: Honestly, the first 2/3’s of the course was challenging for me, especially remembering all the formulas and their applications. However, I approached each challenge a step at a time; took copious notes; sought help from the professor outside of class when necessary; sought occasional clarification from fellow students, and worked hard.

How well I did: I am actually a little proud of how I did in this course. While no one is ever going to mistake me for statistics expert, I do feel I have gained the knowledge and confidence to contribute value to a future statistics project. I have gained an understanding of statistical concepts, and the importance of identifying which study variables are used and how.
What’s next: The successful completion of a statistics course was the only thing standing between me and graduate school! Now that I’ve conquered the dread factor I had associated with statistics, it feels like the sky is the limit!

Faculty Evaluation of Student
Jennifer, thank you for your thorough and honest self-evaluation of your experiences and efforts in the statistics class this term. I smiled when reading your evaluation, especially the crescendo at the end, similarly to how you made me smile all term long with your good humor.
You had nearly perfect attendance this term and you completed all of the individual assignments for this course – the vast majority of them after the due date.
As you noted, your research group chose to study the relationship between art experience in K-12 education and number of art classes taken at university. In the first draft of the full paper I noted some issues with the methods and results sections, and a plethora of literature cited in the discussion section, which I suggested might best be parceled out more evenly between the introduction and the discussion sections. In the final draft of the paper you all responded beautifully to most of my comments; however, there was still an abundance of literature in the discussion, but all other comments were addressed and the result is a really fabulous final paper.
The final presentation you all gave to the class was really wonderful – of especial note were the use of artistic images in the presentation to convey meaning and to stay within the theme of your research project. The class really enjoyed your thought provoking presentation and a great discussion ensued the presentation.
It was an absolute pleasure to have you as a member of our statistics learning community this term. Thank you for consistent presence, collaborating so well with your teammate on your group project, and giving this class your best despite your initial feelings about the subject. I wish you all the best in your future endeavors in graduate school – and I would love to hear updates about all of the success you have, especially in tackling statistics, in graduate school and beyond.