Katherine Lacy

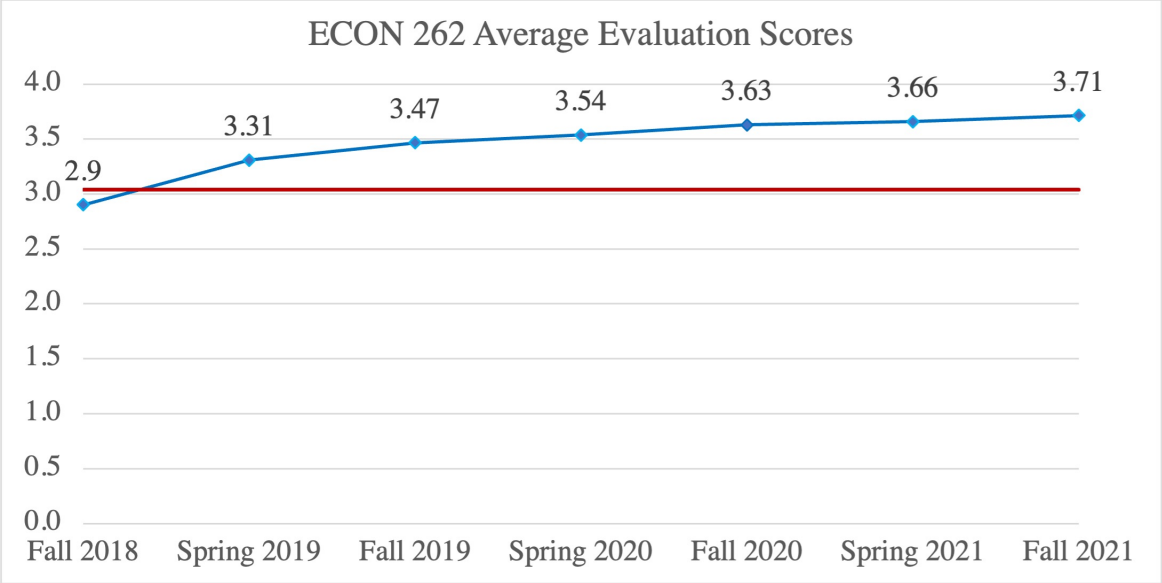
University of Nevada, Reno
Department of Economics
Mail Stop 0030
Reno, NV 89557
775-682-9370
katherinelacy@unr.edu
www.katherinelacy.com

Summary of Teaching Activities and Evaluations

During my time at the University of Nevada, Reno, I have prepared seven different courses, 4 of which were during my first year. Below is a description of my course design, an explanation of my improvements to each course, and a summary of my teaching evaluations. Full teaching evaluations are available upon request.

Courses

ECON 262 – Principles of Statistics II. This course is required for all College of Business students and is classified as a lower-division core course. I have continued to make improvements to this course since I started and now have the ability to offer it fully in-person, hybrid, or fully online. My teaching evaluations have also continued to increase since 2018, as seen in the graph below.



Note: Red, solid, horizontal line represents the department average for all 200-level courses.

I have made substantial improvements to this course over the past eight semesters. Some of the more notable improvements I have made to this course include:

1. Team-Based Learning
   Starting in Spring 2019, I slowly began implementing Team-Based Learning. In this course design, students are placed into teams at the start of the semester and are expected to work together in class. To ensure students are held accountable, teammates evaluate each other and provide comments on how to improve as a teammate multiple times throughout the semester. While not typically emphasized in a statistics course, this design helps students improve their communication skills with initially unfamiliar individuals.

2. Discussion Sections
   As the enrollment in my ECON 262 courses increased, it became impossible to hold classes in a computer lab, and it became challenging to provide individual students assistance during class time. In Fall 2020, I experimented with optional Friday review sessions. These sessions seemed to go very well, and I requested that ECON 262 courses be eligible for Discussion Sections. In Spring 2021, my course had enrollment required discussion sections. These section enrollments were capped to allow each section to fit in a College of Business computer lab, which allowed us to provide students with an opportunity to follow along on Excel without needing to bring a personal computer to every class. The smaller sections also provided students with a to ask for assistance with the practice problems.

3. Lecture Videos and Excel Tutorials
   When the university moved all courses online in March 2020, I decided to record my lectures for the course instead of holding zoom lectures (zoom class was devoted to working through practice problems). The recorded lectures seemed to work well, so I decided to formally record all of my lectures for the Fall 2020 semester. This involved restructuring all of my lecture notes, creating speaking scripts, and many hours of editing. All lectures are broken into 10-minute (or less) videos to hold the student's attention. Along with the lecture videos are Excel tutorials, where students can follow along with me as I conduct the relevant statistical tests.

4. Hybrid Course Design
   Now that I have professionally recorded lecture videos and excel tutorials, I have implemented a hybrid course design while still using Team-Based Learning. Lecture days (1 out of 3 course days a week) are optional attendance where students can come to live, in-class lectures, or watch the lecture videos and excel tutorials. But, students have access to these videos all semester and can re-watch them at any time.

Below is a timeline of changes made to my ECON 262 course:

- Fall 2018 - I used the standard lecture approach with some in-class practice problems in my first semester.
- Spring 2019 - I introduced some aspects of Team-Based Learning. Specifically, students completed quizzes together, which were based on previously completed individual homework assignments, and worked on in-class practice problems.
- Fall 2019 - I added a large final report, which was completed as a team. I also started using the testing center for exams so I could test students on their ability to use Excel, which is a significant aspect of this course.
- Spring 2020 - I began improving all assignments and examples by collecting more relevant and larger data sets. However, the move to online classes caused me to shift my focus from improving datasets to making a web-based course. I decided to keep the Team-Based Learning aspect of my course intact by using zoom breakout rooms for team activities. Also, to attempt to maintain the integrity of my exams, I was able to learn Excel VBA coding to issue different exam versions to each student based on their student ID. These excel files were also coded to have a built-in timer, an "I'm done" button that provided a save-as prompt and locked the file to prevent sharing, and a script to auto-grade the numerical answers when I received the file. Unfortunately, there were still some instruction-following complications with this type of exam, so I also acquired the knowledge required to build my own multi-version exams in the course homework system (McGraw Hill Connect).
- Fall 2020 - I re-recorded all lecture videos using a written script and recorded excel tutorials. As a result, I adjusted the course design to make quizzes individual and based on lecture videos to make sure students were watching the videos. I also started experimenting with optional Friday review sessions. Finally, this semester, I broke up the large team report into three smaller reports to give students more practice writing up their results for a general public audience.
- Spring 2021 - This was the first semester of enrolled Friday discussion sections; however, the course was still online, so I continued using breakout rooms for teamwork. I also implemented collaboration documents for the three reports, linking WebCampus with Google docs. The collaboration documents allowed me to keep track of the work completed by each team.
- Fall 2021 - This was the first semester having the discussion sections in the computer lab. I adjusted the course assignments to allow for more class time to be spent on writing the three reports, especially the final report.
- Spring 2022 - I started converting to free-to-students software. To take attendance, I use a Google form with a scannable QR-code instead of a paid-for software like Turning Point. I also provide copies of in-class problems using Google docs instead of bringing printed versions that very few students wanted. But I provide scrap paper in case a student wants to physically write the questions down from the Google doc. I also re-developed the team peer evaluations as a Qualtrics survey to make them easier for the students to complete. I made the peer evaluation Qualtrics survey publicly available through my website (katherinelacy.com) for others who would like to use my assignment design. Additionally, I improved the final data analysis report with a larger and more relatable dataset.

ECON 102 - Principles of Microeconomics. Principles of Microeconomics is a course that is required for all College of Business students and is classified as a lower-division core course. It also is a *CO6* course and is often taken by non-majors and non-business students. I continue to improve the course as my enrollment capacity increases.

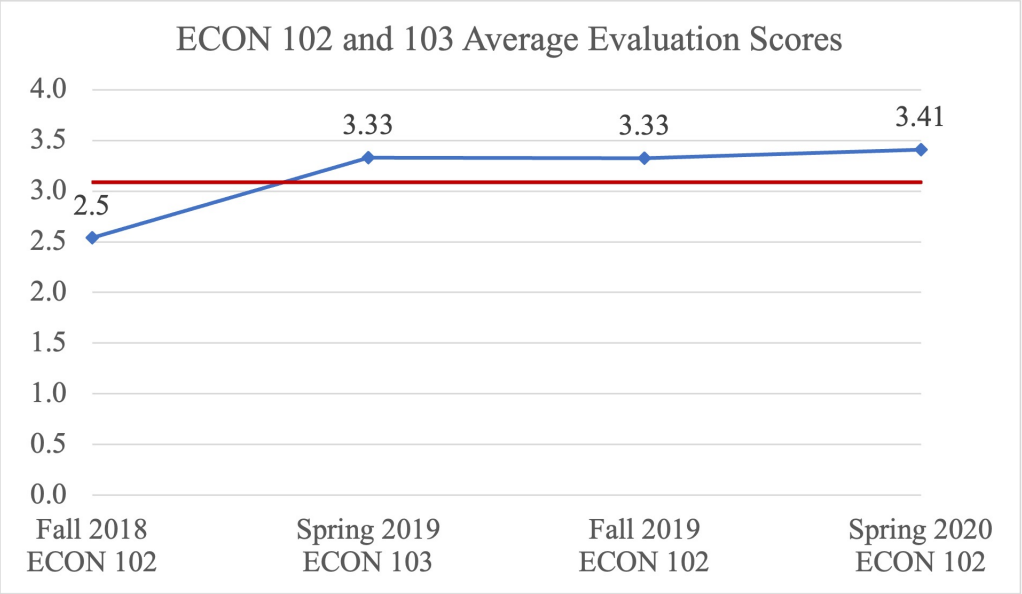
As with ECON 262, I started implementing Team-Based Learning in my ECON 102 courses. In the first semester I taught this course, in Fall 2018, I used a standard lecture approach paired with in-class experiments to help students understand complex economic theory. As a result, I was invited to present in a session at the Agricultural and Applied Economics Association Annual meeting on how to use experiments in larger microeconomics courses.

Although the experiments were interactive, they were not often occurrences in the course. To increase student interactions, I started implementing Team-Based Learning. My first attempt was in ECON 103 (see below) in the Spring of 2019. In ECON 102, I started implementing Team-Based Learning by having students work in Teams for in-class problems. These problems were often based on a podcast episode of NPR: Planet Money to give students a real-world example of the material. Some of these podcast-based class activities were written up as classroom case studies and published in a peer-review journal (see publication list). Spring 2019 was also the first semester I started holding classes in the PSAC active learning classrooms.

In the Spring 2020 semester, I continued with Team-Based Learning and implemented team quizzes using "Immediate Feedback - Assessment Technique" (IF-AT) Cards. The IF-AT cards have four scratch-off boxes per question, one for each multiple-choice answer option (A, B, C, D). If the team scratches off the box for an incorrect answer, they see a blank box. However, if the team scratches off the correct answer, they see a star. For each wrong answer scratched off, the team loses 0.25 points. IF-AT cards provides teams with immediate feedback as to whether their answer to a multiple-choice question is correct or not and allows the teams to learn as they progress through the quiz. Additionally, if used correctly, the answers to previous questions can be used to guide teams to the answers to later questions.

Using IF-AT cards seemed to work well for my students, but I struggled to find a good substitution when the course was moved online. Now that we are back in person, but with even larger classes and the apple initiative, I want to continue these immediate feedback quizzes using an online platform. Starting in the Fall 2022 semester, I will be creating these quizzes using Qualtrics. This will be free for my students to reduce their out-of-pocket expenses, and the survey can be designed to provide immediate feedback after each question before moving on to the next question.

ECON 103 - Principles of Macroeconomics. This introductory economics course, specifically macroeconomics, is required for all College of Business students and is classified as a lower-division core course. I taught the course once (in the Spring 2019 semester), and was it my first attempt at Team-Based Learning in a 100-level course. I implemented team quizzes at the start of each week based on individually completed homework assignments.



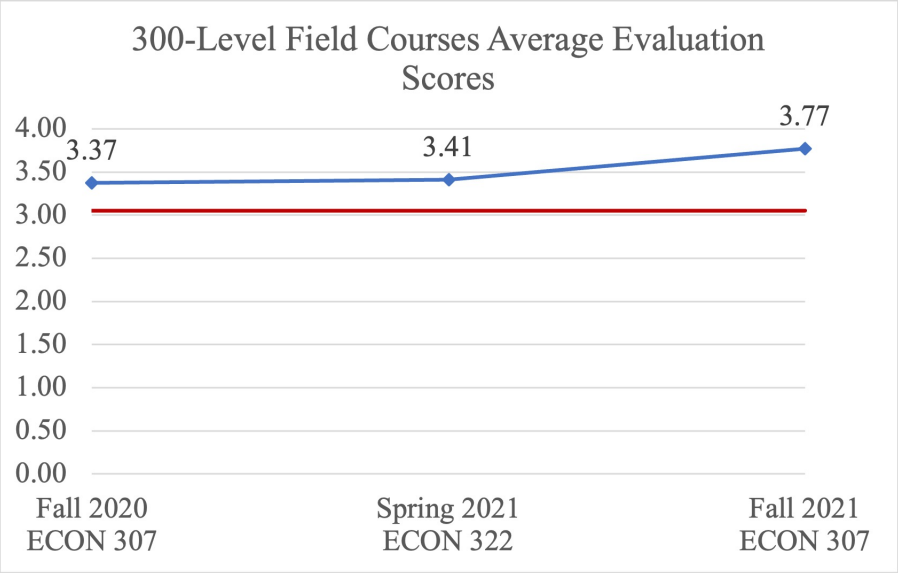
Note: Red, solid, horizontal line represents the department average for all 100-level courses.

ECON 307 - Environmental Economics. This is an upper-division elective course that is cross-listed with Agricultural Science. I designed the course in two segments. The first half of the class focuses on the theory needed to analyze environmental problems as an economist. The second half of the class involves applying the theory. The application draws on published environmental analyses written as reports appropriate for an undergraduate-level audience.

When I taught the class a second time in Fall 2021, I added a few podcast episodes and discussions about the podcasts to improve student engagement throughout the semester. The students were also asked to write short papers applying the concepts they learned in the course to real-world events. Finally, to make sure the students were on the right track, I added topic presentations in the Fall 2021 semester to allow students some time to gather feedback from myself and their classmates. I found this significantly improved the submitted papers.

ECON 322 - Agricultural Commodity Markets and Risk Management. This is an upper-division elective course for economics majors. I designed this course from scratch with very little guidance. My colleagues who teach this course at other Universities are located in a College of Agriculture or a College of Liberal Arts. Since my department is in a College of Business, I wanted to avoid tailoring the course towards agriculture students, which is how this course is usually designed.

To improve the course in the future, I found a few open-source books and in-class case studies to add to the course design. I am also developing Excel documents that students can use to create various statistical and financial charts to analyze data.



Note: Red, solid, horizontal line represents the department average for all 300-level courses.

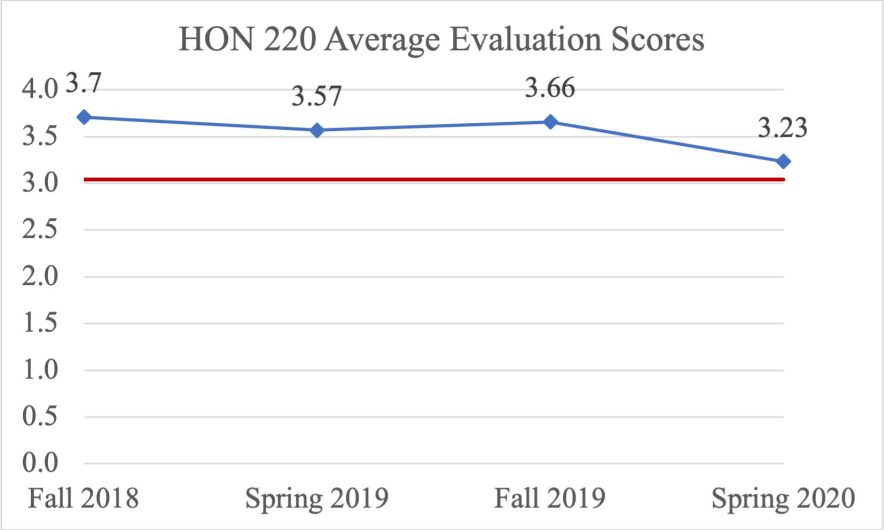
HON 220 - Introduction to Economic Theory and Policy. This is an honors course that can be used to replace ECON 102 and ECON 103 for business students and is considered a *CO6* course. The course is expected to cover material from both ECON 102 and ECON 103 in one semester. I taught the course for four consecutive semesters.

HON 220 is a relatively small class, so I used a lot of in-class economic experiments to help explain some theory-heavy topics. We also spent time relating the economic theory to current events, and students were asked to write four papers based on a current news article or podcast episode. I made minimal changes to the course from the first semester (Fall 2018) to the second semester (Spring 2019).

In the Fall 2019 semester, I improved the news article papers by adding a detailed rubric so students could visualize my expectations. Additionally, students were asked to create a 5-minute presentation related to their report for the class. The student audience was expected to ask questions and have a discussion about these news presentations. As a result, the class participation greatly increased, but the discussions lacked structure.

In the Spring 2020 semester, I adjusted the course to incorporate structured discussions related to current news events instead of having multiple written news article papers. To replace the writing assignments, I created a final report where students had to analyze macroeconomic data to analyze past recessions and attempt to predict a future recession. Little did I know, we would enter a pandemic in the middle of the semester, making it appear as if we were in another recession.

I wanted to keep the course relevant and the students engaged when moving online. Therefore, I decided to adjust the entire course schedule and design to be discussion-based. We spent the class periods discussing current events related to economics and applying the course material to fully understand the current economic activity. I had never developed a discussion-based course before, so it was challenging to figure out the right balance between discussion and lecture. In hindsight, students probably would have preferred a distraction from the current events instead of another discussion of the pandemic.



Note: Red, solid, horizontal line represents the department average for all 200-level courses.

BADM 700 - Statistics for Decision Making. This is an online business statistics course for the Executive MBA students, which I teach in the Spring semester as an overload. From the first semester to the second semester, I removed the required class discussion posts as they were not achieving the desired goal of having students relate the material to their current job. Instead, I created four new assignments: mini-reports where students are slowly building up the material they need for the final course report. These mini-reports have been a great addition to my course and have given me the opportunity to provide students with specific feedback on the application of the course material.

Future Improvements. After teaching-related discussions with colleagues outside of UNR, I have decided to attempt to implement a new communication tool in my future courses. Slack, a communication app used by many companies, is a way some instructors communicate with students in their smaller classes. I intend to implement Slack in my summer course when the enrollment is low to figure out how to use it for my larger classes. My goal is to be able to have "online" office hours (in addition to in-person or zoom office hours), where I can be reached on Slack. A benefit of this app is that students can ask questions for all other class members to see. So, when multiple students have the same question, they can resort to Slack for an explanation. I expect this to benefit the students who have questions but are too afraid or nervous to seek help.

Summary of Course Evaluation Scores

Semester	Courses	Overall Eval of Teaching	Overall Eval of Course	Dept. Mean of Teaching Evaluation	Dept. Mean of Course Evaluation
Fall 2018	ECON 102	2.4	2.4	2.8	2.8
	ECON 262	2.7	2.8	2.8	2.8
	HON 220	3.8	3.8	2.9	2.5
Spring 2019	ECON 103	3.2	3.3	3.0	3.0
	ECON 103	3.1	3.1	3.0	3.0
	ECON 262	3.1	3.1	3.0	3.0
	HON 220	3.6	3.6	3.4	3.1
Fall 2019	ECON 102	3.4	3.2	3.1	3.0
	ECON 262	3.2	3.1	3.1	3.0
	ECON 262	3.5	3.4	3.1	3.0
	HON 220	3.7	3.7	3.0	2.5
Spring 2020	ECON 102	3.3	3.3	3.2	3.1
	ECON 262	3.3	3.3	3.2	3.1
	ECON 262	3.6	3.6	3.2	3.1
	HON 220	3.0	2.8	3.5	3.3
Fall 2020	ECON 262	3.7	3.5	3.0	2.9
	ECON 262	3.5	3.6	3.0	2.9
	ECON 307	3.6	3.0	3.0	2.9
Spring 2021	ECON 262	3.6	3.6	3.2	3.2
	ECON 322	3.3	3.4	3.2	3.2
	BADM 700	3.5	3.5	3.3	3.2
Fall 2021	ECON 262	3.7	3.6	2.9	2.8
	ECON 307	3.7	3.6	2.9	2.8

Undergraduate Advising

When I first started at UNR, I was one of the undergraduate advisors for the Economics department. I would individually reach out to 55 students and offer to meet with them to make sure they were on track to graduate in four years and assisted with picking out classes for the next semester. Once the college moved to a central advising model (Spring 2020), I remained a liaison between the Economics Department and the College of Business advising center. I often meet with advisors to explain the various economics degrees, attend declaration day events, and meet with students (around 10 to 15 a semester) to discuss future careers or graduate school applications.

I am also the undergraduate advisor for the accelerated BA/MA and BS/MA programs. I meet with prospective students (about 2-5 a semester) to ensure their GPA is high enough for the master's program and they are on track to graduate with a Bachelor's degree in 4 years. Finally, I advise them on future classes to take as an undergraduate.

Engaged Teaching

In Spring 2022, I began mentoring a Carson City high school student, Samuel Chenin, for his AP research project related to the yield impacts of climate change and genetically modified crop adoption.

Other

BizFit faculty member, Fall 2019 - Present

ACUE two-semester teaching course, Fall 2018 - Spring 2019

Teaching & Learning Communities monthly teaching conversations, Agricultural & Applied Economics Association, Fall 2019 - Present

WSID Workshop: Teaching Scientific Writing & Communication in Undergraduate Courses, Spring 2022

Honors and Awards

Graduate Faculty Excellence in Teaching Award, 2022
Senior Scholar Mentor for Lilian Xie, Fall 2021
Graduate Student Teaching Award, August 2018