

1. Teaching Pedagogy

My primary teaching focus is on the student and the process of learning itself, which in turn means a focus on those elements that best support learning. For me this means that rather than focusing on economics as the end goal, I readjust the focus to the practice of economics, and the aim then becomes about using economics to pursue understanding of real world issues. By focusing on the pursuit, there is an agency that develops between all of us in the classroom, and my focus in teaching usually has a basis in building that energy. Sometimes, depending on the context, this energy is harder to build, but gradually over time I gained techniques and experience that allow me to adjust in the moment to reestablish that engagement. Mirroring this, I design course deliverables as a way to double-down on building that energy. They become more than a way to assess final learning, but are also thoughtful inputs into learning along the way (as reflected in the student comments).

I believe that my success in this is due to the fact that this approach seems suited to the goals of our students. Specifically, today's education is much less about "gathering" knowledge as it is about "using" it. The main gap I see in students' skills is higher order; it is in critical thinking and analytics. At the same time, I think economics is a great lens from which to view the world, providing all its students with a set of analytical tools, an eye for assumptions, and an understanding of opportunity cost. I design my teaching around using that lens, and in each course I aim to provide students with analytical tools relevant to the course, practice in thinking critically, and evidence of both of these in hand at the end of the course.

Using this focus as my overarching guide, I design the course lectures to first lay out core material and then to move to interactive discussion, where the main aim is to apply what we have learned to a real world issue. I design the deliverables to extend the interactive class discussion, give more practice using the analytical tools, and to build on writing and oral skills. This works differently depending on the level and size of the class. In larger courses based mostly on introductory material, I found discussion hard to come by until I started breaking the class up into smaller groups, giving them structured discussion points to consider, and then, once they loosen up, bringing them back to full class discussion. In courses with a course project (econometric or otherwise), I also add interactive peer review and self-editing exercises through out the year, which greatly improves the final projects and along the way gives practice in critical appraisal of others and practice in refining one's own thinking.

For me, this process is first built on preparation and communication, and with each lecture or meeting, I come prepared with a foundation that forms the base of the discussion, and, more importantly, I come ready to communicate. I do not see the latter as a static ability, but rather as a dynamic process. Our audiences are always changing, and over my development as an academic, I realize that willingness to communicate, to angle concepts differently when you need to, is the key to effective dissemination.

This document proceeds as follows. First, I provide a summary of my teaching experience detailing the courses I have taught in the past and, for three example courses, a more detailed description of my approach to teaching in each case. Next, I provide a description of the student feedback. This includes overall teaching effectiveness results from student course evaluations and written comments from students, which I summarize into main themes. These themes show my evolution in organization of course materials, whether the courses were challenging and/or useful, and whether the support I provided was effective. Lastly, I provide complete course packages for my 3 most recent courses including syllabi, sample lectures, course deliverables and student evaluations in section 4.

2. Summary of Teaching Experience

In total, I have taught 8 courses at Dalhousie University and the University of Toronto as summarized in Table 1. Half of these courses are field courses: Labour Economics (3rd year), Health Economics (2nd year), Topics in Health Economics (4th year) and Graduate Health Economics, and the other half are core

courses whose aim is to deliver requisite material to a larger program: Math-Stats Review for Master of Public Policy students at the School of Public Policy and Governance, Macroeconomics (1st year), Econometrics serving both undergraduates and graduate students in the Master of Development Economics (MDE) program, and Microeconomic Theory for the MDE program. In addition to these courses I have served as supervisor or committee member to 21 theses (6 Honours, 6 MDE, 5 MA and 4 PhD), with 10 of these in a supervisory role.

My research interests are well suited to courses in Labour, Health and Environmental economics, and my teaching skill is also particularly well suited to delivering core material in a way that emphasizes its ties to a larger program (see course descriptions and teaching assessments below for more details).

Table 1: Course Overview

University	Course	Level	Year	Session	Number of Students	Program Requirement*
U of T	Labour Economics	3rd yr	2007	Fall-Winter	99	.
U of T	Math-Stat Review	MPP at SPPG	2008	Fall	36	.
Dalhousie	Health Economics	2nd yr	2009	Fall	37	26%
Dalhousie	Macroeconomics	1st yr	2009	Winter	113	68%
Dalhousie	Health Economics	MA & PhD Econ	2010	Winter	4	.
Dalhousie	Econometrics	3rd yr & MDE	2010	Fall	38	92%
Dalhousie	Health Economics	2nd yr	2011	Winter	51	15%
Dalhousie	Health Economics	MA & PhD Econ	2011	Winter	14	0%
Dalhousie	Econometrics	3rd yr & MDE	2011	Fall	55	97%
Dalhousie	Micro Theory	Graduate: MDE	2011	Fall	11	90%
Dalhousie	Health Economics	2nd yr	2012	Winter	47	26%
Dalhousie	Health Economics	MA & PhD Econ	2012	Winter	10	0%
Dalhousie	Econometrics	3rd yr & MDE	2012	Fall	40	91%
Dalhousie	Econometrics	3rd yr & MDE	2012	Fall	32	95%
Dalhousie	Health Economics	2nd yr	2013	Winter	46	20%
Dalhousie	Health Economics	MA & PhD Econ	2013	Winter	4	.
Dalhousie	Econometrics	3rd yr & MDE	2013	Fall	33	100%
Dalhousie	Health Economics	2nd yr	2014	Winter	47	14%
Dalhousie	Health Economics	MA & PhD Econ	2014	Winter	4	.
Dalhousie	Micro Theory	MDE	2014	Fall	8	100%
Dalhousie	Health Economics	2nd yr	2015	Winter	45	21%
Dalhousie	Health Economics	MA & PhD Econ	2015	Winter	5	.
U of T	Topics in Health Econ	4th yr	2017	Winter	29	.
TOTAL	8 Course Preps	23 Courses			808	

SPPG: School of Public Policy and Governance

MPP: Masters of Public Policy

MDE: Masters of Development Economics

*This provides the percent of students who state that the course as a program requirement on their student evaluation.

In what follows, I provide a summary of three past courses and highlight the features of the course as they relate to the pedagogy described above.¹ For a more complete review, I have also provided course syllabi, sample lectures, and course deliverables in section 4.

Health Economics (2nd year) at Dalhousie University

Course Background

This is an introductory undergraduate course where students learn theoretical and empirical analysis relevant to health economics. The course is usually comprised of two groups of students: economics students and science students with an interest in health economics. I have designed the course to deliver to both these groups, and I do this by focusing each lecture on theory first and then transitioning into how we can use that theory as either “consumers” of health research or “producers” of health research. At the conclusion of each lecture topic, students actively participate in peer-discussion, where this discussion is structured in stages, and students reflect on specific questions.

The course design delivers to all types of students. For science students it provides an introduction to health economics and the main issues in this field, and for economics students it serves as a primer for the more rigorous methods they will see as they proceed through the rest of our programming. The course has become more popular over time and my primary feedback from students is that there is value in the content, both for continued study and in preparation for their career. For instance, I was nominated by biology student Shannon McCrary as a CIS Academic Mentor Professor after she interned in a physiotherapy program and saw many of the concepts we discussed in class “in action.” I describe general feedback on this course further in the Assessment Section of this dossier.

Course Development

Overtime, my main change in this course was to design each lecture to deliver on theory first and then transition into how we can use that theory to understand health research. I have included three sample lectures in the section 4 that illustrate this method. This first is designed around understanding health evidence. We start first by laying out a framework for understanding evidence. Then we move on to using this framework to “read the newspaper.” In this case, we look at current newspaper articles reporting on health evidence and we deconstruct it by answering the following: “What is the population of interest?” “What is the outcome of interest?” “What is the intervention/factor?” Once we have completed this process we discuss (in break away groups and then as a class) our interpretation of the results reported.

I have provided two other sample lectures in the appendix illustrating active learning. The first deals with the topic of cost benefit analysis, where we lay out the methods and go through a few “textbook” examples. Once we complete this, we use our knowledge by applying it to a “real world” decision. The example I have provided in the appendix deals with a NICE committee decision to fund a cancer drug through the National Health Service, but I have also used examples from my own work; for instance, discussing the clinical guidelines on when to medically intervene with preterm babies: we discuss the basis of those guidelines, and use real world data to see how closely these guidelines are followed in practice. In each case, we come back to the standard model for economic evaluation, and I focus the debate using this framework.

¹ I owe great thanks to the Centre for Learning and Teaching workshop series at Dalhousie. Specifically: “Secrets of Learning”; “Sharing Good Learning and Teaching Practices in Economics”; “Active Learning in Economics”; and “Optimizing the Success of International Students in Economics”. Additionally, I owe thanks to Lynn Taylor of the CLT who met with me one-on-one to discuss the use of evaluation rubrics and methods for student engagement.

The last lecture I have provided is nearer the end of the course when we have covered most of the material. At this point, we take a step back and look at health system performance. Most students are now ready to understand the complexity of evaluating different health care systems, but to illustrate this complexity and at the same time pull out the main aspects of system design we run a “horse race.” We start by organizing into teams representing countries. We then go through the recent health statistics on health systems resources, health outcomes, etc. assessing how each country stacks up against the others. Once we have sense for the cross-country differences, we move on to comparing the health systems of 5 different countries. In each case, the students are asked to come back to the topics we have addressed throughout the course: methods of physician payment, sources of competition in the system, design of the insurance scheme, possibilities for opt out, etc.

Course Challenges

This course is a larger introductory course, serving both students interested in the topic of health in general terms and students whose interest in the course stems from an interest in economics. The primary challenge in this larger diverse group is getting any discussion going. The course is usually taught in a lecture hall, where the students are far from the lectern, everyone can see everyone else’s screen, and they can more easily zone-out (...they think). To meet this challenge, I start the course right away with ice-breakers to set the tone, and then use the diversity of the class background to feed debate in the course examples.

Econometrics (3rd year and MDE) at Dalhousie University

Course Background

This is a compulsory course serving three groups of students: undergraduate students (mostly honours), students in the Masters of Development Economics (MDE) program, and students in the 2+2 program in their first semester upon arriving from China.

The course aim is to develop theoretical and empirical skills in econometrics. Throughout the course students engage in classroom-based peer discussion beginning with communication of course goals and expectations (mine and theirs). The centerpiece of the course is a term project (in section 4, I have attached the project description and the lectures structured around it), and final output is a formal exposition of analysis and research results: i.e. the Course Paper.

The course also focuses on the theoretical aspects of econometrics, and we spend the first part of the semester building this foundation. For instance, one of the most effective lectures in the early part of the year, is a discussion of the central limit theorem. To drive home the power of this theorem, I prime the students with Monte Carlo exercises. First, we start with a deck of cards and “draw” from the Bernoulli distribution. Once we get a few samples “collected”, I have the students calculate averages. When that gets a bit slow, we proceed by writing a program that will draw samples for us. Along the way, I have the students pick out elements of the theorem: Why do we need to reshuffle the deck between each draw? What would happen if we increased the sample size? By the time we plot the empirical distribution from our Monte Carlo simulations there is an intuition for what it will look like, and the statement of the theorem itself is already recognizable and familiar.

Course Development

My main area for development for this course is to link general course concepts to actual application. The term paper I assigned was a good start, but I wanted to take it further. My goal is to cultivate skills that students will rely on and use in their future scholarly work or in a future career.

My goals in this are highly aligned with those of the students. I tend to start each course with a peer discussion on course goals and in this course we usually pare down to these top two: “I want to understand the econometrics used in papers / in my other courses” and “I want to be able to do my own analysis.” This course is designed to deliver on this, and I think this is the primary reason why this course is highly valued by students.

My focus in this was to break down the barrier between the classroom and the real world. The strategy is related to the one I use for undergraduate health economics, but where we get to use statistical tools to fix ideas. Once we lay down the base theoretical tools, we arrive at the course midpoint, which describes strategies to move from understanding a statistical model in general terms, to using it to answer a specific question (in my experience, this is a non-trivial leap for students and one that can leave a gap between a methods course and other aspects of the program if not addressed somewhere). To do this, I pause in the midpoint of the course and lay out four strategies to link statistical modeling to the real world (see Lecture 14 and Lecture 18 in section 4)

1. The first strategy is to create a narrative for the use of econometrics in the real world. In the version of the lecture included in the course package, I point the students a book on Paul DePodesta, a student of econometrics, who went on to use statistical techniques to identify market inefficiencies in baseball recruiting (handily for students there is also a movie illustrating the story: Moneyball).
2. The second step is to practice distilling the statistical framework from the economic model. The goal is to see the common elements of the statistical framework and not get too distracted by the economics. We practice pulling this out using examples from recent journal publications.
3. After we have practiced this distillation, we go in the opposite direction: the third strategy is to take our statistical analysis back to an application. In the past I have used examples like Engel’s work on rolling regressions (several students have picked this up over the years in their term papers). The last time I taught this course, I booked a guest lecturer to give two examples of how OLS could be used on the trading floor.
4. The last strategy is to take that energy and lay out the structure of the term paper assignment, i.e., the “you can do this too” moment. The course follows up with students after they have produced a first draft of their term paper. Specifically, Lecture 18 is focused around peer review, and students evaluate their peers by, again, pulling out the statistical framework. This review process is highly structured and includes for instance, reverse outlining methods and peer evaluation of the initial draft.

Course Challenges:

This Econometrics course is a required course serving three very different groups of students: economics majors, graduate MDE students, and 2+2 program students from Shandong, and it can be a challenge to be effective for all students against the background of this diversity. My main strategy for meeting this challenge is through highly structured lectures and deliverables, and then I repeatedly tie that content back to its use outside the course, e.g., in understanding research methods in their field courses, in developing a thesis project, in simply reading the newspaper. With the proper support, even a diverse group of students can meet the same learning goals and, when they do, the experience for them has been an effective one. Particularly in the case of Econometrics, the act of tying course challenges to the rest of the program means this requisite material is more explicitly mapped into other courses.

Topics in Health Economics (4th year Capstone Course) at the University of Toronto

Course Background:

The fourth year capstone health course is made up of 11 course topics in the area of health economics, and for each topic, the lectures draw core material from research papers and then move to structured

discussion. Because the course serves students with a great deal of economics already under their belt, I add a challenging set of deliverables that aim at developing additional skills in public speaking, in giving and receiving critical feedback, and in developing an eye for open questions; all skills useful as they consider next steps on the job market or to graduate school.

In the lectures, I focus our materials on how the lens of economics can be applied to the topic of health, and the challenge I pose to them is to take simple economic frameworks to real world examples, e.g., taking models of monopoly to current controversies in pharmaceutical drug pricing, using standard demand theory to pull out discussion on the difference between “health” and “health care” and taking simple models of insurance to understanding the implications of various proposals to repeal Obama care, At first I found it nerve-racking to be so ambitious in an undergraduate course, but despite my own experience, it doesn't take a graduate degree to make these links.

Course Development:

Even though the course mostly involves group discussion, the course is highly structured. The main idea is to develop skills in writing and oration, while also providing knowledge of the field of health economics. The main design of the lectures and capstone project is to view knowledge as dynamic and the knowledge-frontier as evolving. Each lecture topic has three components: seminal research in the area (lecture base), discussion of subsequent contributions to seminal work, and relating that knowledge to real world examples. Students communicate their knowledge in four ways: blog-posts of related research, short oral presentation of a topic and formal written reflection of learned materials. While this process provides good training for academic research, it also provides skill in summarizing knowledge and being able to focus the discussion (written or oral) on the “big picture.”

The centerpiece of the course is the capstone project (the so called the “Back-to-the-Future” project), which is developed over the course through structured course participation, presentation, peer feedback and written reflection. In the project, the students are asked to place a research article along a larger timeline, as reflecting the past and informing the future. We start by noting that relative to all but the most recent articles in health economics, we have one advantage over the author(s): we are from the future. By traveling back to the future from some past point, not only can we anticipate innovations relative to a past article, in many cases we can observe the execution of subsequent innovation. The main goal for the students in this project is to investigate this progression through time for a chosen article and to pick an angle or specific thread of innovation upon which to base their narrative.

As I have my teaching skill has developed, I have been able to allow more flexibility in the direction of the discussion. This means I am better able to address questions around individual student projects live in class, and by setting a tight structure on the interplay between course topics and student projects, discussion of any one person's project has value for all. This has resulted in higher quality work by students, and the synthesis that students bring to the course generates an effective learning experience for all those in participation.

Brief Summary of Other Courses

Aside the three examples listed above, I have taught five other courses. Two are field courses (Undergraduate Labour Economics and Graduate Health Economics), and three focus on core material whose main function is to serve a larger program: Mathematics and Statistics Review for SPPG, first year Macroeconomics, and Microeconomic Theory for the Master of Development Economics program. My teaching effectiveness here has evolved and turned on the same strategy: to focus the content and deliverables on something that has resonance for the students. In methods, this is to focus on understanding and using mathematical and statistical tools with an explicit translation to use in the larger

program. In Micro and Macro my focus has been similar to that of health economics but where the economic framework or the economic lens is focused on a broader set of real world examples.

3. Assessment of Teaching and Mentorship

Over time, I have used student feedback (i.e., course evaluation metrics, student comments, and department-solicited student evaluation letters) to assess what does and does not work in the classroom. In this section, I provide a summary of this feedback with some discussion on how it has impacted my teaching over time. In addition to this summary, I have also included the student evaluations for my three most recent courses in section 4 and department-solicited student assessments that were part of a successful tenure application at Dalhousie. Further, for all my courses, I provide a full set of all evaluations here: www.courtneyward.ca.

Overall, the student feedback I received highlights three themes where I do particularly well: organization (rated at a weighed average of 4.5 out of 5 across all courses), challenge (students were challenged by the deliverables and felt they met this challenge through the course), and support (students had the support they needed to meet the challenge). Looking through this feedback, I find that the order of these elements roughly tracks the development of my teaching over time. In the beginning of my career, I started by creating organized courses; each with obvious themes, cohesive evaluation, and a good set of notes. My next objective was to set challenging learning goals that were shared by both the students and myself, and were matched with deliverables that met those learning goals. The last layer was providing effective support. There is an art to knowing how much support to give, and my most recent focus is to design a good platform from which students can excel and, importantly, feel ownership over subsequent learning outcomes and course output. My evaluation and feedback supports continued success in these objectives and is described below.

Course Evaluations

Table 2 provides scores for questions related to overall teaching effectiveness by course and year (see table notes for question wording and scale across time and institution). On this metric, the tabulated results show a high degree of teaching effectiveness with scores generally averaging 4 and above on a five-point scale. They also show improvement within course after the first preparation and across time as I gained more experience teaching. Further, the underlying data show that over time I have displaced ratings of lower rank and essentially eliminated any ratings of 1 “Very Poor” in favour of ratings of 4 or 5 (“Very Good” and “Excellent”). For instance, in my three most recent courses, 0 percent gave a rating of 1 “Very Poor” whereas 92 percent of students gave me a rank of 4 “Very Good” or 5 “Excellent”.

While I improved on overall teaching effectiveness (4.5 in my three most recent course deliveries versus 4.3 in those before), the question where I show the most improvement is in whether students found the course intellectually stimulating (in this case a 4.5 versus the previous 4.1). I credit this change to how I have modified lectures and deliverables over time.

Table 2: Overall Effectiveness - Average Score Across Course and Academic Year

Course:	Math-Stats	Health Econ	Macro	Econometrics	Micro	Health Econ	Health Econ
Program:	SPPG	2nd yr	1st yr	3rd yr/MDE	MDE	MA/PhD	4th yr
University	U of T	Dal	Dal	Dal	Dal	Dal	U of T
Year & Prep							
2008-2009 1	4.74						
2009-2010 1		4.30	3.50			-	
2010-2011 1		4.70		4.00		4.10	
2011-2012 1		4.30		4.60	4.20	4.60	
2012-2013 1		4.24		4.56		-	
2012-2013 2				4.24			
2013-2014 1		4.07		4.50		-	
2014-2015 1		4.24			-	-	
2016-2017 1							4.80

Notes: The table reports average scores for overall teaching effectiveness as reported from my course evaluations (posted in full here: www.courtneyward.ca). For U of T Health Econ, the rating is based on the question "Overall, the quality of instruction provided by Courtney Ward in this course was:" and uses a five point scale: 1 "Poor", 2 "Fair", 3 "Good", 4 "Very Good", 5 "Excellent". For Dalhousie, the rating is based on the question "Overall, the instructor was a effective teacher" and uses a 5-point scale labeled differently: 1 "Poor", 2 "Very Poor", 3 "Satisfactory", 4 "Good", 5 "Excellent". Also of note, in 2012-2013, the Dalhousie student evaluation switched from a hard copy evaluation to an online assessment, which may lead to a selection effect in the reported means. For Math-Stats at SPPG, the rating is based on the question "How would you rank the overall ability of the instructor" and uses a 7 point scale: 1 "Very Low" 2 "Poor", 3 "Below Average", 4 "Average", 5 "Above Average", 6 "Very High" 7 "Outstanding". The latter score has been normalized to a five-point scale for comparison. The original number is 6.64 on a 7-point scale. "-" Indicates graduate courses with course enrolments too low to disclose evaluations. SPPG indicates School of Public Policy and Governance. MDE indicates Master of Development Economics. MA indicates Master of Arts, Economics.

Written Feedback

The following is a summary of the feedback I have received from students through course evaluations and department-solicited letters on teaching effectiveness.² What I think these data signify is my continued development of courses around three themes of organization, challenge, and support, and I have summarized student feedback below by rearranging comments along the lines of these categories. Following this, I discuss the constructive criticism I have received, and how I have addressed it. Lastly, I discuss the feedback I have received from course TAs.

a. Organization

Feedback From Course Evaluations

"She was extremely organized and enthusiastic about the subject matter. She took the time to get to know everyone's name and showed genuine concern for each of her students. She prepared the classes well and adjusted the structure as she went to suit everyone's needs. She made an incredible amount of effort to make things exciting and make sure people didn't get bored. Overall awesome prof and I wish I

² For each junior faculty member in economics, Dalhousie "solicits appraisals of his teaching effectiveness from those who have been taught, advised, and supervised by [that member]." This forms part of the assessment leading up to tenure.

wasn't graduating so I could have her again as a teacher." *2nd year Health Economics*

"Professor Ward has taught the class in an organized and effective way, stimulating learning while always addressing and helping with any student concerns." *Microeconomic Theory for MDE*

"She was very organized which made it very easy to follow her when teaching. She made every effort to aid us with extra materials that would help us get through the course. She did her best to provide every thing we would need to learn and do well in the course." *3rd year/ MDE Econometrics*

"Presented pertinent information that was also relevant to the climate of health economic debates today. Excellent professor who is enthusiastic and knows her content extremely well." *2nd year Health Economics*

Feedback From Department-Solicited Student Assessments

"From the very first class, Courtney gave a detailed outline of the course objectives and organization. She clearly communicated her expectations, methods of evaluation and provided advice for doing well in the class." *Graduate Student, Course: Health Economics*

"I had the pleasure of being taught by Dr. Ward for ECON 3338 in my very first semester at Dalhousie. With a finance background, this course was my first introduction into econometrics. A course such as introductory econometrics is not easy to teach, as most of the students equate their feelings towards the course with the workload and the difficulty level. I feel that Dr. Ward did an excellent job of systematically teaching the concepts and content of this challenging course" *Undergraduate, Course: Econometrics and Health Economics*

"Prof. Ward's lectures effectively strung together source material into a logical and coherent narrative; a teaching method that takes considerably more work than following a textbook. She frequently posed questions to the class as a way of keep us engaged and adjusting the level of details to our understanding of the material." *Graduate Student, Course: Microeconomic Theory for MDE*

"Dr. Ward is an excellent instructor. I found her Health Economics lectures to be highly organized, clear and concise. She encouraged active learning through class discussions, seminars and student presentations, which helped students such as myself, formulate research questions and develop thesis ideas. Her commentary of student presentations was constructive and thoughtful. *Graduate Student, Course: Health Economics*

I have found the course well organized and well structured. The outline was very well prepared; I found particularly useful the timelines (proposed weeks and topics) as well as the references to the literature for each topic. The structure of the course which consisted of lectures and seminars, as well as the course requirements (a presentation and a paper) have been well explained at the first lecture, and discussed several times throughout the course. This has helped me better manage my time and workload. I also liked the way Blackboard was used for submitting work and sharing material." *Graduate Student, Course: Health Economics*

"Another great advantage of the class was the organizational structure. I found her notes system, as well as the structure to be very beneficial to learning. I have had professors who had very unorganized class structures and notes – sometimes this appeared to be their style of education, other times it was an apparent lack of interest in the class. Dr. Ward excelled in very clearly laying out the structure of the class and tying all the separate sections together. The class was clearly very well thought out, and was designed in a way that it was challenging and stimulating but not frustratingly difficult. The class notes were also a great boon, easy to follow and very pedagogical." *Undergraduate, Course: Econometrics*

b. Challenge

As I gained more experience teaching, I started to build on my existing course structures, but instead of my standard-issue lectures and deliverables, I began to arrange this content to focus on critical thinking and using the economic framework at hand (be it a health field course, or a core course in econometrics, math-stat, or micro) to look at real world issues. I then redesigned deliverables that would have this focus and, in the process, teach skills in: discussion, presentation, peer evaluation, and writing. Where the courses served a thesis, I also added practice in developing questions and assessing feasibility. The following is student feedback on this approach.

Feedback From Course Evaluations

“The in-depth discussion of readings/articles in class, complimented by explanations of theoretical concepts etc., greatly enhanced learning. The tutorials, including the peer-review and econometrics workshops, were of additional value.” *4th year Topics in Health Economics*

“Excellent class! Methods are excellent. Material covered in class is extremely interesting. The subject is hard and Prof. Ward not only makes it understandable but also applicable and fun. Methods of evaluation are great! Midterms and assignments are excellent means for all students to learn rather than purely memorizing terms. Overall, excellent class and extremely well taught!” *Microeconomic Theory for MDE*

“Prof. Ward’s lectures were structured in a way that not only helped me understand econometrics but also all the statistics classes I had previously taken. Her assignments and tests were challenging but always assessed fairly. Thanks very much!” *3rd year/ MDE Econometrics*

“Very good professor, very knowledgeable of the course and material. I loved that she not only taught the course for academic purposes but also for practical use in the field. She made the course very practical and applicable to the real working world of economics and that made me want to learn because it would be very useful in my career.” *3rd year/ MDE Econometrics*

“Professor Ward is very knowledgeable and able to explain this material clearly. She facilitated class participation very well through class presentations and structured participation. The material covered is well balanced between theories and empirical work. No constructive criticism comes to mind.” *Graduate Health Economics*

“Courtney was an excellent prof. She conducted class well and in a way that was easily understood. She provided strong examples to back up theoretical ideas and was very good at explaining Stata commands. Her tests and assignments, though difficult, were excellent at promoting critical thinking about the subject matter. She was approachable and very friendly outside of class. Liked the online course notes as well. Overall great course!” *3rd year/ MDE Econometrics*

“Provided very detailed notes/slides: useful for references and future work. Covered a lot of very interesting material. Structured semester well. Start: Theory; End: Readings on theory in application.” *Graduate Health Economics*

“Even though this course was extremely demanding (and more difficult than most in my opinion) Professor Ward made it as learnable as possible. I found having lecture slides to help base our learning off of was extremely helpful. I think I learned a lot of valuable information from this course, and in many ways that is due to Prof. Ward. Also I found her to be extremely helpful during her office hours. I always felt comfortable going to her if I had any questions. I have signed up for Health Econ because I liked her teaching methods so much.” *3rd year/ MDE Econometrics*

“Amazing class! The material covered in class is extremely interesting and informative. It is really helpful to have a theoretical component first and then a seminar component. The course is very challenging but not impossible which makes learning really effective than just memorizing everything. Perhaps change it to a different time as a 3-hour class in the afternoon may be a bit tiring” *Graduate*

Health Economics

“Very well done. Course was well organized, and you clearly cared about our learning. The initial draft submission and peer review for the term paper was brilliant. Even if peer review is not used, all professors should require a draft (let’s face it, with a full course load one must prioritize and papers get left until late; having to scramble to put together a draft, then being able to make it better later was the best thing that could have happened). Overall, best prof so far.” *3rd year/ MDE Econometrics*

“The term paper was a great addition to the course because it allowed us to apply our knowledge from the class. I also now do not feel as intimidated by writing a thesis next year as I have gained extremely beneficial experience.” *3rd year/ MDE Econometrics*

“Overall, best course I took this term. Quite helpful for other field courses.” *3rd year/ MDE Econometrics*

Feedback From Department-Solicited Student Assessments

“Dr. Ward liked to challenge all her students, so that they would get the most benefit out of the course. For example, about a month into the term Dr. Ward encouraged me to read a text that was beyond the scope of the class, during a conversation we had regarding the use of statistics to prove the direction of causality. Dr. Ward also showed great concern for students who struggled with the material being covered in the course and did an excellent job of simplifying abstract concepts and providing tangible examples of how these econometric tools could be applied.” *Undergraduate, Course: Econometrics*

“With Introduction to Econometrics, Dr. Ward runs a tight ship. From day one I was completely motivated to learn. She is engaging like few others, her class is very structured, and it was clear that she had taught the course before. The class was challenging and it helped broaden my horizons. A clear example of this is the “peer review” process she had us go through after handing in a draft of our final papers., three weeks before the due date. I had never experienced that before, but it led me to read several of my friends’ papers and attempt to critically assess their worth. I have not read an academic paper the same way since. Econometrics was more than an economics class; it was as course on academia in general.” *Undergraduate, Course: Econometrics*

“Our method of evaluation included a presentation and written summary of a topic of our interest, along with a midterm and final exam. Her tests were challenging but fair. They cleverly tested knowledge, comprehension and application of the material. Prof. Ward provided timely and thoughtful feedback.” *Graduate Student, Course: Health Economics*

“From the first lecture Professor Ward tried to establish close communication with the students by, for example, asking each student about their expectations, research interests and then explaining whether the course would meet these expectations.” *Graduate Student, Course: Health Economics*

“Professor Ward managed to make me not only enjoy, but truly interested in the theory behind econometrics and what can be done with it. ... Professor Ward also has high expectations for her students, but reasonably so. I found that her teaching was appropriately catered to the level of course that she was teaching. Both of her courses were challenging, without being overwhelmingly difficult. She pushes her students and is invested in the results.” *Undergraduate, Course: Econometrics and Health Economics*

“I appreciate that Dr. Ward is a demanding professor: her high standards have been a constant motivation for my growth. In particular, her challenging course in Econometrics pushed me to develop my potential in empirical methods and helped me to identify my research interests.” *MDE Graduate Student, Course: Econometrics and Health Economics*

“Dr. Ward’s classes were some of the most difficult that I was enrolled in as a student at Dalhousie. I also believe that it was in her classes that I learned and retained the most information that is relevant to my work

today.” *MDE Graduate Student, Course: Microeconomic Theory*

“She was always very supportive of me pursuing my own academic interests, and in pushing my development. In her class I was encouraged to take on an ambitious project but also given help with the process, and guidance in terms of not taking on too much work. I know that this has been the case for several other fellow students as well – when students show a further interest in a subject, she genuinely encourages pursuit of it, and has made her own time available outside of class to aid it.” *Undergraduate, Course: Econometrics*

Feedback Explicitly Assessing Content for its Use Beyond the Course

“In terms of lecture content and presentation, I really appreciated Professor Ward’s enthusiasm and vast knowledge of the topic. It was inspiring for me as a student to go to the lectures where the professor could comment on so many things beyond the main theoretical points. Another distinct feature of Professor Ward’s lectures was her desire to teach students to think as researchers, by properly identifying research questions and using the right methods. Irrespective of the topic of the lecture, Dr. Ward would keep a constant focus on the underlying methods and would provide very helpful intuitive explanations about how each method works. It was often eye-opening to me when I could finally understand certain econometric methods and the way they were used in applied research.” *Graduate Student, Course: Health Economics*

“This past year was a significant year in my life; it was the turning point where I realized that what I did everyday at school was in fact what I wanted to do for the rest of my life. The field of Economics had been fascinating up until then, but research was something even more challenging and rewarding for me. I started coming to the seminars every week, and slowly came to understand and appreciate the process of academic work, critical assessment, and brainstorming that it entailed. I came to realize there was no way I could end my studies after my undergrad, and I am applying for the Master’s program this year. This all started with one class; the one class where the rubber meets the road, Introduction to Econometrics, with Professor Ward.” *Undergraduate, Course: Econometrics*

“She can clearly explain economic issues not only theoretically but also practically, with a focus on business and government. She is also very clearly able to explain econometric methods that can be highly convoluted. Dr. Ward not only ensures that required readings cover seminal papers in the literature, but also touches on the progress of the literature in the field. Her assignments also develop skills that are necessary at the graduate level.” *Masters of Public Administration, Course: Health Economics*

“Dr. Ward’s lectures covered both the theoretical basis for econometrics as well as its practical applications, and she also encouraged students to bridge the divide between theory and practice with the work she assigned in class. For the term paper, Dr. Ward helpfully provided real-world datasets, as well as a list of possible research topics, to all students an opportunity to undertake econometric analyses without being side-tracked by the need to find data from other sources. Outside of classes, Dr. Ward was always available to meet with students to provide clarification and guidance when needed.” *Undergraduate, Course: Econometrics*

“Professor Ward is confident in her delivery yet approachable, striking a balance between two of the most important characteristics that a successful educator must have. This teaching style allowed for many robust discussions during her class, which resulted in many students pursuing further research in the field of Health Economics. Currently working in the Healthcare Industry myself, I needed some direction for a key presentation and Professor Ward was happy to address my questions, even though months had passed since we had last spoken.” *Graduate Student, Course: Health Economics*

“In the classroom, she pushed students to hold themselves to a standard similar to other leading universities, and to try and build develop the analytic and critical-thinking skills that are necessary for advanced economics. Outside the classroom, Dr. Ward displayed a commitment to student success beyond the level demonstrated by most of the other lecturers I have had.” *Undergraduate, Course:*

Econometrics

“Dr. Ward was one of the best lectures I have had from the Economics Department, and from Dalhousie as a whole. Most of what I have retained from my time as an economics major at Dalhousie pertains to econometrics, and this is largely thanks to her effectiveness as an instructor.” *Undergraduate, Course: Econometrics*

“Dr. Ward has been a popular professor among students at Dalhousie University. The students find her lectures to be well-organized and relevant to their lives. For instance, in the undergraduate econometrics course, students are trained to write a paper with application of various statistics tools. This has been extremely effective in building students’ research skills for evidence-based approach to public policy. With Dr. Ward’s continued guidance, many students develop their term paper to a thesis or part of application to further education and job market.” *Graduate Student, TA: Econometrics*

“Dr. Ward is a dedicated lecturer who explains course material in a clear and organized manner to ensure that students are equipped with the essential skills. More importantly, Dr. Ward teaches students how to tackle solving problems from multiple angles and directions, which has benefitted me in higher-level economics classes and will also benefit me in graduate school.” *Undergraduate, Course: Econometrics*

“I met with her a few times to discuss course work and she was always intent on making sure I grasped the subject fully, which I greatly appreciated. The way she teaches the course makes the material very intriguing and highly applicable to real life and is reflected in her exams which ask you to apply the knowledge from the class to current economic situations like Obama’s soda tax.” *Undergraduate, Course: Health Economics*

“Awesome class – relevant subject matter taught by someone who knows the material well and cares about making sure her students are challenged and are learning the material. Brought in someone from industry to speak to the course as well which was great for connecting the material to the real world.” *Undergraduate, Course: Econometrics*

c. Support

One of the main issues I had to grapple with is how to support students through ambitious deliverables without it becoming overwhelming (to them or me). This took a longer time for me to develop because my approach to solving it depended on first recognizing common pitfalls in understanding and then heading them off directly in the lectures and discussion of deliverables. I got better at anticipating these pitfalls partly through accrued teaching experience, but I also rely heavily on in-the-moment class discussion, and in a quiet and/or large class I often use breakout discussion groups and check in with groups as I walk around the classroom. This gives me a sense of things, and, if needed, I can come back to the full class and directly tackle any emerging points of misunderstanding.

Feedback From Course Evaluations

“Ward was easy to understand. I appreciated the fact that when you didn’t understand, we didn’t move forward until the topic was clear. She provided thorough notes. I am taking another class solely because she is teaching it” *3rd year/ MDE Econometrics*

“Best professor I’ve had in all of undergrad. Economics department, if you can, steal her as she would be an amazing addition to the faculty. She is amazing at breaking down the material and making the content understandable. Her style of teaching is engaging.” *4th year Topics in Health Economics*

“Professor Ward is an excellent lecturer who presents (often complex) material in a manner that is both engaging and makes the material simple/straightforward to understand. UofT would benefit greatly if she were a permanent member of the faculty, rather than just a visiting professor!” *4th year*

Topics in Health Economics

“Classes are always very well organized – makes it easy to follow. Assignments and tutorials were great in helping to understand econometrics. The hands-on approach of the course made econometrics seem a lot more realistic to a student who is used to memorising theorems. Professor is approachable and incredibly helpful.” *3rd year/ MDE Econometrics*

“Professor Courtney taught us how to use mathematical methods to prove classical economic theories, which is a required ability for an economics graduate student. She encourages us to work together to solve difficult questions. I learnt a lot from this class.” *Microeconomic Theory MDE program*

“Really seemed like she wanted everyone to not only know the subject but also understand it.” *3rd year/ MDE Econometrics*

“Made the challenging course material accessible and understandable.” *Microeconomic Theory MDE*

“It was such a pleasure to have the opportunity to be taught by Professor Ward, I think she did a fantastic job. I wasn't really sure to expect going into the course because everything about it was so new, but Professor Ward really surpassed my expectations. The topics and papers she chose were interesting and relevant and she did an excellent job in communicating the key course concepts to us. I particularly appreciated how patient and dedicated she was to ensuring that all students were on the same page despite coming from various streams and being at different levels in economics. Tests and assignments tested our knowledge of the course but were also very fair. You can tell that she spent a lot of time in keeping the course engaging and interesting and it is really appreciated by students. On top of all of her strengths as a teacher you can tell she is brilliant within her field. All the best going forward Courtney, have an excellent summer and thank you for an eye-opening semester, I really learned a lot! *4th year Topics in Health Economics*

Feedback From Department-Solicited Student Assessments

“In my opinion, Dr. Ward is one of the most skilled instructors in the economics department. She is able to communicate complex information to produce “light bulb moments” for her students; is willing to give advice and extra help if needed and is able to adapt her lessons to the skill level of her class to ensure that her students are able to understand the information, explain it to other and retain it as well.” *MDE Student, Courses: Microeconomic Theory and Econometrics*

“Our final paper for this class was unlike any papers I had written before. The objective of the assignment were to communicated clearly, and students had multiple options for writing We could chose from among a set group of topics (with attached datasets) or choose from our own interests. The provided topics gave us a closer view to the kinds of questions we could ask with our econometric skills, while we were also able to use these concepts to inform our personal research questions. Additionally, we were asked to submit a first draft, which we then exchanged with our classmates in a peer review session before completing a final draft. While some professors may simply let us loose, and allows us to do peer review on our own time (which, let's face it, we never do), Professor Ward's style was such that we were guided along the process, and were able to complete a better quality essay by the end of it, which proved helpful when writing our thesis the next year.” *Undergraduate, Courses: Health Economics and Econometrics*

“I must also emphasize, Dr. Ward's willingness to adjust the pacing of her teaching to accommodate students' needs. While lesser professors might not take the time to repeat the explanations for complicated concepts, Dr. Ward always walked us through the tricky math until we were more comfortable with the subject matter.” *Undergraduate, Course: Econometrics*

“Dr. Ward presented the material in an easy to understand relatable way and provided numerous in-class examples to aid student comprehension. She was particularly good at explaining concepts from multiple

perspectives, and answered in-class questions patiently and insightfully. *Undergraduate, Course: Econometrics*

“From my experience, Dr. Ward is a talented and capable instructor. When I took ECON 3338 (Econometrics I), it was a course that included undergraduate and graduate students with varying backgrounds in terms of their previous preparations in mathematics and statistics. Dr. Ward was able to provide an overview of econometrics in such a way that it was understandable to students who were less familiar with the subject while still being interesting to those with more knowledge of quantitative methods.” *MDE Student, Course: Econometrics*

“Dr. Ward had thorough understanding of both subjects, and was able to explain topics in a number of ways to help students gain a good foundation of knowledge. For both courses, she had put in significant work to develop detailed and useful notes in addition to textbook readings, and provided flexible office hours to be available to students seeking further insight on relevant subject areas. She was well spoken and took time to show examples backing up her explanation of challenging topics.” *Undergraduate, Courses: Health Economics and Econometrics*

d. Constructive Criticism

The most frequent critical comment I receive is about posting notes ahead of the lecture. In the past, I would often wait to post lecture notes because of an untested theory that students would download notes in lieu of coming to class. Things changed when I started augmenting econometrics lecture notes to include space to write and graph, which meant we would all have the basic lecture structure in front of us and we would break out the details live together in class. Of course, this also meant I had to post the notes ahead of time (...on the other hand, because of the live work, students still had an incentive to come to class). At this point, I have had students say they wish they had the notes ahead of time and say they appreciated having the notes ahead of time. Nobody has mentioned appreciating the notes not being posted ahead of time. I take the point.

Feedback From Course Evaluations

“she spoke clearly, and i really like that she used the projector with hand written notes that were posted before class” *Econometrics*

“Topics, especially in the seminar, were interesting. Lectures were enjoyable and very clear. It may be helpful to have all Powerpoints posted in advance however.” *Graduate Health Economics*

“There were some days that had very few handwritten parts to the slides, and it was difficult to stay focused” *Econometrics*

The second most common critical feedback I receive is that the lecture notes are dense. In this case, I also have a balance of comments with the opposite view. Posting notes ahead of time may be a way to get everyone on board here, as well as integrating more live work as I did with econometrics.

Feedback From Course Evaluations

e.g., comments from 4th year Topics in Health Economics where notes were not posted ahead of time:

“Very good. The slides and the notes are very helpful.” *4th year Topics in Health Economics*

“The lecture slides were filled with too much information for class, which made taking notes more difficult. Also, it was hard to study from them as well.” *4th year Topics in Health Economics*

“It was great. I wish Professor Ward was at U of T full time. The lectures were really dense and it was hard to stay focused for the whole 2 (or sometimes 3) hours. I would have preferred if the slides were posted before hand, so that I could have a baseline knowledge going into lecture - and be able to ask more in depth questions.” 4th year *Topics in Health Economics*

e.g., comments from Econometrics and undergraduate Health Economics after restructuring notes to include live work and posting ahead of time:

“She spoke clearly, and i really like that she used the projector with hand written notes that were posted before class” 3rd year/ *MDE Econometrics*

“Class was good. Lectures became much better when prof started walking class through problems on the overhead rather than just going through slides.” 2nd year *Health Economics*

e. TA Supervision, i.e., another teaching opportunity

In many cases, effective course delivery also relies on teaching assistants, and teaching assistants are students in disguise: they want to learn the skills that go along with course delivery, such as using their economics knowledge to provide feedback, and presenting their knowledge to an audience. Of course, it is personally beneficial to provide good guidance on TA work (e.g. inconsistencies between myself and the TAs can take up time later on), but my own experience as a TA tells me that these benefits run both ways.

One example of these benefits is the TA assigned peer review and term paper evaluation. Integrating some of what I have learned through the Centre for Learning and Teaching at Dalhousie, I started using CLT evaluation rubrics to coordinate expectations among the TAs, the class, and myself. Further, I supplement the rubric by providing the course TA with strategies for evaluation and how to provide constructive feedback. For tutorials, I provide the basic structure of the tutorials so TAs don't get bogged down in prep, but then I make suggestions on how they might add to that structure using with their own examples and insight. Lastly, I check in frequently with students for feedback on TAs and then deliver this back to TAs as we move through the course. I was happy to see that this type of support was highlighted by several of my past TAs in the student letters of evaluation.

Feedback From Teaching Assistants (Department-Solicited Student Assessments)

“She was very proactive and organized in all matters related to the course. She was clear about her expectations for me as a teaching assistant. At the same time, she recognized that I was a student myself, and was understanding about scheduling conflicts. Dr. Ward gave me the appropriate resources to do my job effectively. And, she took time to support me in becoming a better teaching assistant, e.g. tips for delivering tutorials, best practices for grading.”

“Her initiative to organization as an instructor are beneficial to colleagues and teaching assistants. When I was her teaching assistant for Introduction to Econometrics, Dr. Ward prepared all tutorial and computer lab lesson plans well in advance of scheduled meetings. This reduced my own preparation time and ultimately enhanced the quality of my time with the students.”

“I often admired her ability to maintain a balance between supporting students through the learning process while holding us accountable for the work. The course evaluations [rubrics] were good metrics of learning. And, Dr. Ward gave great feedback. I still use a lot of her suggestions in my current work. Dr. Ward designed the course so as to keep students actively engaged throughout the semester. On balance, she was a knowledgeable, approachable instructor with a genuine interest in the betterment of students.”

Continuing Motivation for Leadership in Teaching:

The process of summarizing one's previous work offers a great opportunity for self-reflection: "Why am I doing this?" In thinking about my personal motivation for teaching and mentorship, I frequently land on my very last moment as a student, standing on the street corner with my dissertation committee after celebrating a successful defense. Before my committee and I went our separate ways, my mind clamoured towards that final word of "thanks", but, at the same time, the word, itself, didn't seem up to the task. Instead I remarked on the lopsidedness of the student-mentor relationship and how it seemed impossible to repay the value of my committee's mentorship during my years as a student. If I expected to be disappointed in any parting words of wisdom, I wasn't. Without pause, one of my committee members said, "Yes, you can. You can pay it forward." This wasn't the only lesson I gleaned from my years as a student, but one I frequently come back to as the idea that most focuses my intentions and motivations as an academic.

4. Course Materials

This section provides course packages given in reverse chronological order. For space issues, I have focused on my three most recent courses, but I also provide a more comprehensive view on my website: www.courtneyward.ca. This includes, for instance, course syllabi, course evaluations, and department-solicited letters in their original form. The table below provides a list of the materials included here as described in section 2 Summary of Teaching Experience.

1. Topic in Health Economics (Eco 402); University of Toronto
 - a. Syllabus
 - b. Back-to-the-Future Project
 - c. Lecture 3: Pharmaceuticals
 - d. Student Evaluations
2. Econometrics (Econ 3338); Dalhousie University
 - a. Syllabus
 - b. Course Project Description
 - c. Lecture 14: From Econometrics to Application
 - d. Lecture 18: Peer Evaluation and Revision
 - e. Peer Review Worksheet
 - f. Student Evaluations
3. Introduction to Health Economics (Econ 2231); Dalhousie University
 - a. Syllabus
 - b. Lecture 6-7: Understanding Health Research
 - c. Lecture 11: Economic Evaluation
 - d. Lecture 20: Health Systems Comparison
 - e. Student Evaluations