# **EVIDENCE OF TEACHING EFFECTIVENESS**

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## **MY TEACHING STATEMENT**

## My Beliefs about Teaching and Learning

When I was growing up, every summer, I would visit my grandparents who owned a vegetable garden. I was always fascinated by the diversity of food they grow, each with a different color, shape, and even taste. For me, teaching is similar to a gardener who plants a variety of seeds, and cares for seedlings after germination until they are ready for harvest. In this metaphor, students are the seeds ready for learning and growth and the teacher is the gardener at work to facilitate their learning transformation.

There are different types of seeds, each requiring a different time to grow, amount of water, and sunlight. Likewise, students come from different backgrounds, have different learning styles, but they all have the same willingness to learn. Therefore, each student may require the teacher to use different teaching techniques to increase their learning experience and achieve the course objectives. Some plants such as tomatoes need some pruning to yield maximum harvests. Similarly, some students require additional support to achieve the course objectives. Thus, it is my responsibility as a teacher to help them through in-class and out-of-class support and by maintaining an inclusive and enabling classroom atmosphere.

### **Goals and Actions**

As a teacher, I want my students to learn by doing in order to master the material covered in the course and develop skills they can use in their professional careers. To achieve this goal, I promote an active learning environment and design activities to help students connect the dot and synthesize knowledge almost by themselves. I, then, serve as the facilitator that helps them strengthen the knowledge acquired from pre-assigned activities. For instance, for this example course in introductory to macroeconomics course (see <u>sample syllabus</u>), the set of activities I design for students to achieve the course learning objectives include pre-class, in-class, and postclass activities.

Pre-class activities are related to the concepts they learn before coming to class. For instance, they complete assigned readings using guiding questions, review videos, and complete assigned self-tests on the classroom management system (e.g. Canvas) to gauge their understanding of the material. Once in class, I summarize key concepts in a short lecture to make sure that any confusion from the self-tests is cleared up. Finally, they deepen their knowledge through individual and group activities that I facilitate. After class, students are assigned additional practice problems and are encouraged to get support from myself or a teaching assistant when available, (see <u>pre/post-class</u> activity for CPI and GDP topic in an introductory class to macroeconomics and a <u>pre-class activity</u> including an online discussion in Canvas for environmental justice topic in Environmental Law and Policy).

For the delivery of the course content, I accommodate different student styles by presenting the course material through multiple learning tools. For instance, I introduce the weekly topics and assignments by alternating between text and voice recording announcements. I also supplement chapter book readings with online videos or my video-lectures explaining important concepts. My PowerPoint presentations display graphs and photos to accommodate students who learn better from visualization. I routinely use learning management systems such as Canvas, Moodle,

blackboard, and Google classroom that support the delivery of course content and assess student learning.

I incorporate peer instruction and technology into my courses. With peer instruction, I first ask students to respond to a question on their own, then, turn to their peer/group to explain or justify their answers. My students use *Poll Everywhere* to record their answers. They have the option of updating their initial choice after discussing with their peers. This approach helps me identify any concept that needs clarification. It also helps students learn from each other and has the advantage of engaging quieter and more introvert students.

My main classroom management strategy is to create an enjoyable classroom environment that enables students to interact with me and their peers. The experience of students in the classroom shapes their inclusion and learning. Thus, learning to know each of my students better is the first step I take to enhance their inclusion in the classroom. First-day class activities including (1) "*Help Me Know You Better*" and (2) "*Tell Me What You Like/Dislike the Most From One Of Your Past Class*", usually help me start learning about my students and their expectations. I adopt their learning tools to captivate their attention and engage them in class activities. From my experience, students appreciate this opportunity to learn and this is illustrated by the comments received from my most recent courses. More recently, I have started checking on students' work in the classroom while they are solving problems. I found this experience to be rewarding as my students get to engage more with me in the classroom and during office hours.

## Inclusive Classroom

My commitment to promoting diversity, equity, and the sense of belonging in my classroom is grounded in my personal experience as a woman and a person of color and in my research. I want each and every one of my students to succeed and feel comfortable in my classroom. I do not only care about their learning but also their <u>sense of belonging (see for example linked article)</u>.

In addition to classroom engagement techniques described above I also adopt project-based learning tools pioneered by colleagues at WPI that <u>reduce bias in the classroom and teamwork</u>. I create a safe learning environment for my students to thrive. I've also started taking a more inclusive approach to the content I teach by providing examples that allow students from marginalized backgrounds to connect their experience to economics concepts. I've also been using open-educational resource textbooks to promote equal access to reading materials for the class. See for example my <u>Women and the Environment</u> and <u>Principles of Economics</u> syllabi.

## Personal Growth Plan

For my growth, I design a framework to allow constructive criticism and improve my instructional practices informed by evidence-based research. My participation in faculty learning seminars and training such as teaching in different modalities is part of my effort to sharpen my effective teaching abilities. I will continue bringing into the classroom research-backed learning methods as I develop or uncover new best practices.

Like a gardener who cares for their plants, I keep designing meaningful learning activities, shaping and reshaping the course materials until my students reach an understanding of the course material for their use in future courses, personal life, or professional careers.

## SUMMARY OF STUDENT EVALUATIONS AND OTHER EVIDENCE OF TEACHING EFFECTIVENESS

To support the effectiveness of my teaching practices and innovations, I use alternative sources of measure and evidence including:

- Student course evaluations
- Research-based teaching practices
- Unsolicited feedback

## 1. <u>Summary of Student Course Evaluations</u>

I include below a summary table of student evaluations of my course along with selected student comments for the Introductory Macroeconomics taught in Spring 2022.

Students report in general positive perceptions of the quality, instructional strategies, and educational value of the course as measured from student course evaluations. One student explains: "She always makes herself available to students no matter what, and you can tell she sincerely cares not only about what she's teaching, but that her students understand and care, too. She wants to see you succeed. She also cares about her students as people.....She's flexible and adaptable, able to gauge student needs in order to present the course in a format that meets them. She's challenging, but understanding, and she perfectly balances lectures between her talking and the class participating. She created an atmosphere where everyone felt inclined to participate, and overall she has a wonderful energy that just makes you want to learn".

## Measures of Teaching Effectiveness and Student Learning (Introductory Macroeconomics)

<u>Summary of Course Evaluations Econ 1120 – in Spring 2022 (Enrollment: 60 students;</u> <u>Respondents: 39)</u>

Course Report Question	My Rating
My overall rating of the quality of this course is:	4.1
My overall rating of the instructor's teaching is:	4.1
The educational value of the assigned work was:	4.1
The instructor's organization of the course was:	4.1
The instructor's skill in providing understandable	4.1
explanations was:	
The intellectual challenge presented by the course	4.0
was:	
The instructor stimulated my interest in the	3.9
subject matter:	
The instructor treated students with respect:	4.9
The instructor was well prepared to teach class:	4.6
Instructor feedback on exams/assignments was	4.3
timely and helpful:	

*Note*: *Rating is from 1 to 5 where 1 is the lowest and 5 the highest.* 

<u>Sample of Student Comments</u> (scanned written evaluations are available in a PDF file upon request)

"I enjoyed the professor very much. She was always extremely helpful and always cared about the students in and out of class. She was very accommodating and a great teacher all around".

"I liked the problem sets and quizzes, they were very helpful in aiding my understanding in the subjects the professor was teaching. I enjoyed being able to review subjects before going over them in class, and the problem sets were a good review on material we already went over".

"I liked that this course taught me real world information based on the economy. I learned a lot of useful information that I can use in the future, and I can understand more about money".

"I loved how this course was structured, it really really aided my retention of the material. Specifically having reading assigned, then a quiz on that chapter, and then in the next class we would go over that chapter again".

"I really liked how this course was routinely structured and balanced amongst group work, individual problem sets, quizzes, tests, and projects. Everything seemed to be planned out very well".

## 2. <u>Research-backed and evidence-based teaching practices</u>

My teaching pedagogy is backed by research and uses evidence-based practices. For example, the teaching and learning tools I use in my classroom such as intensive writing, collaborative learning, and projects are defined as high-impact practices (HIPs) by the Association of American Colleges & Universities (AAC&U). They are known to promote student success, particularly for learners from historically marginalized communities (Georges D Kuh, AAC&U 2008)<sup>1</sup>. HIPs are beneficial to college students by increasing student retention and engagement and by promoting higher-order learning.

In my classrooms, I also rely on teamwork for collaborative learning. There is evidence that using team-based learning helps students apply concepts learned in economics (e.g.: Imazeki 2015)<sup>2</sup>.

The newer generations of college students have some general characteristics that require a change in the paradigm of teaching. They prefer collaborative and hands-on styles of learning (Raines 2002)<sup>3</sup>.

I regularly participate in pedagogical workshops and conferences to hone my skills as an effective teacher and by bringing the latest research-backed innovations in classroom. (See for example AAC&U conference in DC in my CV).

## 3. Unsolicited Feedback from Past Students

I received unsolicited feedback from past students attesting to the effectiveness of my teaching practices and instructional methods. Here is an example:

"I am reaching out to you because your passion and engagement with students in the class has empowered me to work hard to develop a solid understanding of macroeconomics. From easy to read and understand powerpoints filled with real world examples and practice problems to weekly quizzes, the way you teach your class was perfect for me. Your thoughtfully considered and planned out syllabus supported student mental health, spacing out projects and exams that helped me to thrive and succeed. Through your class, I learned how to examine the financial growth of countries and how many factors to consider in determining this: ranging from trade, supply and demand, consumption to government decisions and intervention. Seeing the ways monetary and fiscal policies have direct impact on the world today made me excited to add Economics to my future course of study. I appreciated how willing you were to work with me when I was in a car accident, helping me find group mates for a project and finding a suitable time to take my mid-term. During the class project, I extensively researched active economic policies for Germany and discovered the policy "Stepping into child care." A policy that offers childcare

<sup>&</sup>lt;sup>1</sup> Kuh, G. D. (2008). Excerpt from high-impact educational practices: What they are, who has access to them, and why they matter. *Association of American Colleges and Universities*, *14*(3), 28-29.

<sup>&</sup>lt;sup>2</sup> Imazeki, J. (2015). Getting students to do economics: An introduction to team-based learning. *International Advances in Economic Research*, 21(4), 399-412.

<sup>&</sup>lt;sup>3</sup> Raines, C. (2002). Managing millennials. *Connecting Generations: The Sourcebook, 16.* 

to disadvantaged families to ensure that all children in Germany have access to equal opportunity for language acquisition and peer socialization within the education system.

I hope to continue to pursue quantitative work in Finance and Economics and ultimately a degree in Business utilizing the concepts you taught".

Course Name	Course Level	Course Enrollment	Last Taught In
Introductory Macroeconomics	Undergraduate	60	Spring 2023
Environmental Law and Policy	Undergraduate	30	Fall 2022
Introduction to Statistics	Undergraduate	38	Fall 2020
Women and the Environment	Undergraduate	5	Summer 2023
Principles of Economics	Undergraduate	28	Fall 2023
Economics of Climate Change	Undergraduate	22	Fall 2023

## SELECTED LIST OF COURSES TAUGHT

## SAMPLE COURSE SYLLABUS

Syllabus for Introductory Macroeconomics (Spring 2023)

## ECON 1120: Introductory Macroeconomics C-Term, Spring 2023

Instructor: Hermine Vedogbeton Email: <u>hvedogbeton@wpi.edu</u> Meeting Time: Tuesdays & Fridays- 9-10:50 am - Fuller Labs 320 Student Hours: Tuesdays 11-12 pm (In person) Room Salisbury Labs 310A Wednesdays 10-11 am (Zoom) <u>Click here to access Zoom link</u> Or by <u>appointment</u>. Feel free to email me if you have any questions.

#### **Course Description**

This course is an introductory level course of macroeconomics that focuses on the behavior of the economy as a whole. Topics covered include gross domestic product, the business cycle, unemployment, inflation, economic growth, and economic fluctuations, fiscal and monetary policies, and international trade. The course also includes a discussion on how monetary policy and fiscal policy attempt to achieve stability in the general price level and growth in national income and employment. The course stresses economic issues in public policy and international trade.

#### **Learning Objectives**

Upon completion of the course, successful students will be able to:

- 1. Distinguish between microeconomic and macroeconomic questions and effectively identify. and comprehend macroeconomic concepts and models written in an economic journal.
- 2. Explain the structure and importance of business cycles and how government policies address them.
- 3. Describe in written assignments how markets work individually and in international exchanges.
- 4. Distinguish between long-run and short-run economic and explain their relative significance.
- 5. Calculate key macroeconomics measures such as real and nominal GDP, unemployment rate, and inflation.
- 6. Describe in writing how aggregate demand and aggregate supply determine macroeconomic equilibrium price and output in the short and long run.
- 7. Apply research skills to analyze the macroeconomic status of a self-identified nation.

#### **Course Philosophy**

The instructional approach is designed to help you assimilate basic and commonly used macroeconomic concepts and to understand how the economy is performing. At the end of this course, you will start thinking like a macroeconomist and be able to describe what initiate the adoption of certain policies when there is a shock to the economy, for instance, when the unemployment rate peaks. I believe that learning by doing is a key principle to succeed in this course and encourage you to attend classes, take quizzes and exams, and complete individual and group assignments.

#### **Required Textbook**

Krugman and Wells, Macroeconomics, Worth Publishers, Sixth Edition, (2021) ISBN-9781319324070. You can rent it from Amazon using this <u>link</u>.

#### **Supplemental Materials**

**Course Website**: Additional reading materials will be assigned during the course and posted on the course website <u>https://canvas.wpi.edu</u>. **Canvas** is an integral part of the course. It has the **course calendar**, which includes all readings and assignments for the semester, as well as additional materials for studying. Canvas also has all my contact information.

**Newspaper and Magazine Articles:** You are encouraged to follow the debate about the domestic and international economy and trade-related topics in the news. The Wall Street Journal and The Economist are very useful and both have nice web editions. If you are interested in news reported quickly, consider subscribing to theSkimm.

#### **Grading Procedures**

The course **requirements** include a group research project, assignments, midterm and final examinations, and exemplary **attendance**. We will also have weekly self-assessment online quizzes over the semester. The allocation of grades is as follows:

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Participation	5%
Assignments	20%
Online Self-test Quizzes	10%
Research Project	20%
Midterm Exam	20%
Final Exam	25%

<u>Class Attendance & Participation (5%)</u>: The success of a lecture depends on everyone's participation in discussions. Class participation involves attending class, coming prepared, asking thoughtful questions, and contributing to other students' ideas.

<u>Assignments (20%)</u> are posted on Canvas and are designed to deepen your understanding of the material covered in class or from the text. Assignments are due by 11:59 pm on the specified day.

**Online self-test quizzes (10%)** are posted on Canvas and are part of weekly assignments to encourage you to keep up with assigned readings and lectures. After reading each of the assigned chapters, take the corresponding quizzes honestly. You are allowed to retake a quiz before it is due. The quizzes are due on Mondays and Thursdays at 11:59 pm.

**Research Project (20%)** The project has two parts. For the first part of the project, you get to pick one country other than the US and research the state of the country's economy. For the second part, you will work in a group of 3-4 students. Your group will pick an area of interest (ex: education systems, natural resources, healthcare). Each of you will present your findings in this area for the country that you chose in the first part, in addition to a comparison to the US.

Project instructions are posted on the course website and will be presented within the first week of class.

**Exams** (20% + 25%) You will have a midterm and a final exam. The final exam is cumulative, with more weight placed on the material covered after the midterm. Please note that papers discussed in class

may also be tested in the exams. Exams are closed notes and closed books, with a mixture of multiple choice, essays and short answer questions. Practice questions will be posted on the course website to give you an idea of the types of questions you may expect.

The grading system for undergraduate studies at WPI employs the letter grades:

A:	90-100%
B:	80-89%
C:	70-79%
NR:	<70%

#### **Responsibilities – Mine and Yours**

#### My main responsibilities as your instructor are:

- Come to class prepared.
- Respond to and encourage questions and other participants as time permits.
- Provide feedback and grade assignments and exams fairly and promptly.
- Be available during office hours and for scheduled appointments.
- Promote a good learning environment.
- Be open to suggestions by integrating feedback received from different classroom assessment techniques.

#### YOUR responsibilities as a student include:

- Attend all classes. Students who are unable to attend any class for a justifiable reason should contact me as soon as possible.
- Complete all assignments and final project on time.
- Prepare for class by always completing the assigned readings in advance of class (allowing time to reread difficult chapters).
- Participate in-class discussion. If you don't read the material, you will not be able to discuss the material. Your active participation will enhance your understanding of the course material, which will be helpful on your exam and final project.
- Commit to <u>academic integrity</u> and value the point of view of other students.

#### **Hints for Success**

- Do your homework on time.
- Studying in groups is highly recommended, as long as each member of the group pulls his or her own weight, and you each remain responsible for learning the material. It is OK to discuss homework with your classmates, but copying somebody else's answers is cheating.
- Learn to know your team members and provide mutual support for your team learning
- Lectures move quickly. So do not fall behind. Write down questions and discuss them with me during my office hours to clarify any sections of the lecture notes or assignments that you do not understand.
- Complete weekly assignment after reading each of the assigned chapters. This offers you excellent feedback on your understanding of the course material, and better prepares you for the essay questions on the course exam and final project.

#### Academy Integrity/Cheating & Plagiarism:

Academic integrity is a basic value for all higher learning. Simply expressed, it requires that work presented must be wholly one's own and unique to that course. All direct quotations must be identified by source. Academic integrity can be violated in many ways: for example, by submitting someone else's paper as one's own; cheating on an exam; submitting one paper to more than one class; copying a computer program; altering data in an experiment; or quoting published material without proper citation of references or sources. To ensure academic integrity and safeguard students' rights, all suspected violations of academic integrity by undergraduates are reported to the Dean of Students Office. I will report academic integrity issues. So, please familiarize yourself with the academic integrity policy found here to avoid becoming involved with a case of academic dishonesty.

#### The Importance of Equity and Inclusion in Teamwork

The ability to work effectively on diverse teams is usually at the top of the list of skills that employers value, and it's among the weakest they see in new employees. This course is an opportunity to further develop your skills in this area, through your teamwork during class and on project work. There is a vast body of research showing that collaborative learning, properly structured for both individual accountability and team interaction, results in learning gains for all. Valuing and utilizing difference and diversity of team members also results in better project outcomes. Even more important is the ability for each team member to learn and grow from collaboration and project work in addition to utilizing their strengths for the benefit of the team and project. Unfortunately, we often sub-consciously make assumptions about what others are good at, how smart they are, what experience they offer, and what roles they will take on in groups. Some of these assumptions are based on stereotypes. Many studies, including some involving WPI students, have shown that populations historically marginalized in STEM due to their race, gender, nationality, and other social identities, tend to be excluded more often from group work or expected to take on certain roles, such as being the secretary or organizer. [Because of this, your team will be asked to proactively use strategies for fair and equitable distribution of roles, such as role rotation. In addition, we'll use some time in class just for you to get to know each other and manage your work together.] If you ever feel excluded from your group and aren't sure what to do about it, please come talk to me! Another source of assistance is the SWEET Center (Supporting WPI through Effective and Equitable Teamwork), which provides both individual and team consultations.

#### **Students Accommodations**

If you believe that you may need accommodations in this course, and if you have not already done so, please contact the Office of Accessibility Services (OAS) as soon as possible to ensure that such accommodations are implemented in a timely fashion. This office can be contacted via email: <u>accessibilityservices@wpi.edu</u>, via phone: (508) 831-4908, or in-person in Daniels Hall. If you have approved accommodations, please request your accommodation letters online through the Office of Accessibility Services Student Portal.

#### Disclaimer

The instructor reserves the right to make changes to any information contained in this syllabus at any time during the semester. Changes will be announced, and an updated version of the syllabus will be posted on Canvas and/or distributed to students.