

# Building a Principles of Microeconomics for All:

## Using Backwards Design to Create Online, Hybrid and Face-to-Face Versions of a Principles Course with Active Student Engagement

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### Backward Design (Wiggins and McTighe, 2005)

Identify Desired Results  
What do you want students knowing or able to do?

Determine Acceptable Evidence  
What do you need from students to show you they have achieved the desired results

Plan Learning Experiences and Instruction  
With Diversity, Equity and Inclusion in Mind

- Clarify Economics is more than the study of Money
- Illustrate the Diversity of the Field
- Allow Students to share their own Perspectives

Concept	Competency	Taxonomy	Learning Objective	Writing Assessment	Exam Assessment	Learning Activity
Comparative Advantage	Use quantitative approaches in economics	Recognize concepts in a workplace setting/seeing yourself (female, latinx) as an economist	Identify the comparative advantages in a two country, two good example and explain how this model is and is not helpful in explaining real trade relationships.	Read Article on current event and react on discussion board	Solve problems that test whether or not the LO is achieved	Opportunity Cost and Cynthia discusses what a trade economist can do
Supply and Demand	Think critically about economic methods and their application	Integrate ideas from the course and articles found in the media	Manipulate the supply and demand model to illustrate the impact of supply and demand shocks described in the context of an article. Explain the limits of the supply and demand model when describing a world that fails to immediately reach equilibrium.	Read Article on current event and 3/2/1 react on discussion board	Solve problems that test whether or not the LO is achieved	Practicing the use of models effectively and identifying their limits
Elasticity	Use quantitative approaches in economics	Developing new interests or values	Calculate the price elasticity of demand from given price and quantity changes. Describe three different scenarios where knowing the price elasticity of demand, price elasticity of supply, income elasticity would help students in their day-to-day life after graduation.	Find Article to post on discussion board and 3/2/1 react to another posted article	Solve problems that test whether or not the LO is achieved	Calculating elasticity in the real world of policy
Efficiency and Equity	Analyze and evaluate behavior and outcomes using economic concepts and models	Recognize concepts in a workplace setting/seeing yourself (female, Muslim) as an economist	Describe graphically and in words how "efficiency" can be used as a consulting firm in the day-to-day operation of a consultant. Describe a scenario where you would choose equity over efficiency.	Choose a hot topic/current debate that can be identified in economic terms (find 3 related articles)	Solve problems that test whether or not the LO is achieved	Nida discusses work at IPMCI in a real life case of implications of equity on efficiency
Government Involvement in Markets	Think critically about economic methods and their application	Complete constructive discourse	Explain to a peer and to the instructor both a negative impact of government involvement in markets and a positive impact of government involvement in markets using terminology from this course. Evaluate the quality of an economic argument in the media.	Analyze the articles you identified. Are they using economics correctly? How?	Solve problems that test whether or not the LO is achieved	Groups are assigned to one side of an equity/efficiency debate to argue in class
Externalities	Think critically about economic methods and their application	Incorporate a student's own experiences	Demonstrate how surplus can be mis-allocated when private cost and social costs are not aligned while exploring a topic that you choose because it is important to you given your own experiences	Propose your own solution for the topic above given what you have learned	Solve problems that test whether or not the LO is achieved	Walk through how Economists study/conduct Externalities
Costs of Production	Analyze and evaluate behavior and outcomes using economic concepts and models	Recognize concepts in a workplace setting/seeing yourself (female, male) as an economist	Describe graphically and in words the following curves: MC, AVC, ATC, AFC and describe an example of each of these categories of costs a type of firm in an industry that you know well with products that you use.	Pick an industry and identify the costs associated with a player in that industry.	Solve problems that test whether or not the LO is achieved	An interview with a businessperson, Susannah from a Retail Firm or Joe from a Tech Firm
Perfect Competition	Analyze and evaluate behavior and outcomes using economic concepts and models	Integrate ideas from the course into life that can be recognized by diverse students	Explain the entry and exit of firms in a perfectly competitive market over the long run. Describe the factors that would exist in a perfectly competitive market and identify firm characteristics necessary to compete in a perfectly competitive market.	What would make you the low cost leader in your industry, explain?	Solve problems that test whether or not the LO is achieved	Experience the entry and exit of firms
Monopoly	Communicate economic ideas in diverse collaborations	Complete constructive discourse	Explain to a peer and to the instructor both the negative impact on markets dominated by a monopolist and the positive impact of a market dominated by a monopolist. Illustrate graphically the profit won by a monopolist above normal profits.	Explain why the government should or shouldn't be involved in regulating competition in your industry.	Solve problems that test whether or not the LO is achieved	Take a side: be an anti-trust regulator or defend a large firm. Argue your side.

### The Result of the Redesign of Principles of Microeconomics

Exam Assessments

Solve Problems based on Learning Objective where problems are based on real world examples seen in course

Solve Problems based on Learning Objective where problems are based on a "new" current events article

Formative assignments providing Scaffolding for Students and Grading Manageability for Teaching Assistants/Instructor

Writing Assessments and Learning Activities

Read Article on current event and react on discussion board

Read Article on current event and 3/2/1\* react on discussion board

Find Article to post on discussion board and 3/2/1\* react to another posted article

Choose a hot topic/current debate that can be identified in economic terms (find 3 related articles)

Analyze the articles you identified. Are they using economics correctly? How?

Summative Assessment

Propose your own solution for the topic you chose given what you have learned and your own experiences

Formative assignments providing Scaffolding for Students and Grading Manageability for Teaching Assistants/Instructor

Pick an industry and identify the costs associated with a player in that industry.

What would make you the low cost leader in your industry, explain?

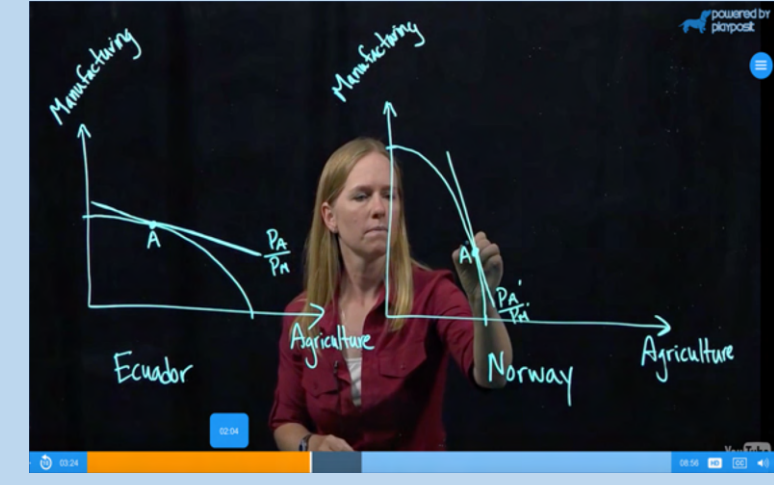
Summative Assessment

Explain why the government should or shouldn't be involved in regulating competition in your industry given what you have learned and your own experiences.


\*From Barkley and Major, 2016 the student provides three things they learned from the reading, two things they found particularly interesting in what they learned, and one question they still have about the information contained in the reading

Classroom Learning Activities vary based on format

Live or pre-recorded lectures walk through basic models found in economics with the associated mathematics.



Practice for exams with problem sets based on alumni Videos that speak to various ways our diverse students use economics in their careers



Groups assigned various policy debates and take sides based on prioritizing equity or prioritizing efficiency to prepare students for both writing assessment and solving exam problems regarding surplus.

A Classroom entry/exit Game by Stephen L. Cheung from Journal of Economic Education (2005) to prepare students for both writing assessment and solving exam problems based on cost concepts and perfect competition

Groups take side of large firms or anti-trust regulators and debate government involvement in firm to prepare students for both writing assessment and solving imperfect competition exam problems

Hybrid and Online Course use Pre-Recorded Lectures with Embedded Quizzing  
Face-to-face course allows for think/pair/share moments and live questions

In online and live course, students watch these videos and do associated problems alone outside of class  
Hybrid course devotes in-class time for these videos, students work in groups to solve associated problems

Only possible in hybrid course given that there are fewer students, instructor is present to guide a safe discussion and students arrive prepared by video lectures

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