

Faculty Resource Guide

for the Digital Course Enhancement Project for Principles of Microeconomics

UNC System, Summer 2020

Introduction to the Digital Enhancements Project for Principles of Microeconomics.

Welcome to the Faculty Resource Guide for the UNC System Principles of Microeconomics Digital Course Enhancements! This Resource Guide will explain the Digital Enhancements project, provide an overview of the materials curated here, and offer information that will help you get the most out of them, saving you time and energy.

First, let us introduce ourselves! Your Digital Course Enhancements team includes all of the people in the table below. We were brought together by the UNC System Office to share materials and ideas and construct an approach to Principles of Microeconomics that would make the most sense System-wide.

Team Member	Institution	Role
Rita Balaban, PhD	UNC Chapel Hill	Economics Faculty
Mark Burkey, PhD	North Carolina A&T University	Economics Faculty
Allison Lowe-Reed, M.E.	NC State University	Economics Faculty
Dave McEvoy, PhD	Appalachian State University	Economics Faculty
Nicholas Rupp, PhD	East Carolina University	Economics Faculty
Krista Terry, PhD	Appalachian State University	Instructional Designer
Jeff McAdams	UNC Charlotte	Librarian

The North Carolina General Assembly has invested \$5 million in non-recurring funding for the UNC System to enhance the student experience in digital learning this summer and fall. A portion of these funds will support online course enhancements.

Massive System-wide efforts moved more than 50,000 face-to-face courses online in a matter of weeks during the spring semester of 2020. Now that the initial emergency is behind us, we can use this program to help faculty—and students—in courses across the state this fall and into the future.

The Digital Course Enhancements program brought together teams of faculty and instructional designers from across the UNC System to consider how to build and organize a set of materials that add value to any of ten high-enrollment, introductory online courses: Calculus 1, Introductory Statistics, Biology 1, Chemistry I & II, Anatomy & Physiology 1, Organic Chemistry 1, Accounting 1, Microeconomics, and Macroeconomics.

Each set of digital course enhancements includes student learning outcomes for the course and a set of learning modules aligned with those outcomes. The modules contain instructional

materials, resources, and assessments further aligned with the outcomes. In addition to the information you find here in the Faculty Resource Guide, you will find additional explanations and suggestions within individual modules and alongside specific artifacts.

Faculty who use these digital course enhancements are not obligated in any way to use the complete set; you can and should select those modules that work for your course and your context.

Read on for specific information about the digital course enhancements for Principles of Microeconomics and here's to an outstanding semester ahead!

Overview of Digital Course Enhancements for Principles of Microeconomics

Microeconomics may be most accessible to students when instructors can pull current events into the classroom. Teaching the course online makes doing so easier but brings new challenges in graphing, engagement and assessment.

This collection of resources can be utilized by experienced faculty or instructors with minimal teaching background or years of experience in the classroom. Novice instructors may appreciate faculty developed activities, text alignment and videos, while new-to-online faculty will benefit from suggestions of easy-to-use online tools for polling and graphs. The development team included activities for individual students, as well as team exercises and discussion starters.

The benefit of creating a course collection to enhance current course design is that it allowed us to recognize different approaches to teaching and learning. We designed each student learning outcome to have text links from a common source in addition to samples of videos, both short and long, which draw from comprehensive lists of content videos which are outlined in a table later in this document. Modules also have activities specifically designed for online sessions, discussion prompts, and individual polling questions and assignments to be used for student self-assessment or low-stakes graded assignments. Instructors should use the activities and assessments to meet the needs of their students.

Learning Outcomes for the Course

The list below represents our team's consensus of the core outcomes that most introductory microeconomics classes should address. It is not meant to cover every topic in microeconomics. The collection is arranged in modules; each addressing the course learning outcomes with resources designed to cover smaller student learning outcomes, some of which are optional.

By the end of an introductory microeconomics course, students should be able to:

- Apply economic decision making tools to everyday work and play decisions.
- Analyze interactions between households, firms, government, and countries.

- Describe how equilibrium in the market model determines prices and quantities of goods traded.
- Use economic tools to measure welfare of market participants.
- Evaluate distribution and welfare effects of government intervention.
- Evaluate sources, welfare effects, and solutions of market failure.
- Use appropriate elasticities to measure variable interaction.
- Analyze firm behavior related to production, cost, and economic profit.
- Compare and contrast expected outcomes under different market structures.

Organization and Alignment of the Course Enhancements

Once we determined our nine core course-level student learning outcomes (SLOs), the team applied the backwards design process to develop a course map. Specifically, module-level SLOs were determined, indicating which skills students needed to acquire in order to achieve course-level outcomes, then assessments, activities, and resources were aligned with each module-level outcome. When you review the Module Overviews and peruse the content, you will find suggested text sections, short videos, long videos, supplementary videos and discussion starters, activities, and low-stakes assessments for each module-level SLO.

Module	Content	Function/Rationale
1	Economic Decision Making	Students will be introduced to the study of economics and the fundamental role that scarcity plays in the discipline. Foundational terminology that is used throughout the course is introduced, along with the economic approach to making and analyzing everyday decisions.
2	Interactions in the Economy	Students will apply the economic way of thinking to understand and analyze interactions between different agents in the



		economy. These interactions are explored within free and controlled economic systems.
3	The Market Model	Students will be introduced to the supply and demand market model, one of the most powerful models in all of economics. We examine how demand and supply determine the price and the quantity sold in markets for goods and services, and how changes in demand and supply lead to changes in prices and quantities.
4	Measuring Market Welfare	Students will be introduced to consumer and producer surplus, as well as gains from trade. These tools are used to quantify consumer and producer welfare, introduce the idea of deadweight loss, and reinforce the ideas of productive and allocative efficiency that were introduced in Module 1.
5	Evaluating Government Intervention	Students will use the ideas introduced in Modules 3 and 4 (the market model and economic surplus, respectively) to analyze the effect of common government interventions on market prices, quantities and welfare.
6	Analyzing Market Failure	Students will be introduced to some of the reasons markets sometimes fail to allocate resources efficiently. We examine the sources of market failure, the implications to market participants, and explore possible solutions.
7	Elasticities	In this module students will learn the meaning and definition for different measures of elasticity, their determinants, and the relationship between elasticity and other economic variables. We also introduce how



		elasticities can help explain the impact of certain events or policies.
8	Introduction to the Theory of the Firm	Students will learn that the answer to “how much” and “how many” goods a firm should produce depends on the production and cost conditions facing each firm. We introduce students to the nuts and bolts behind the idea of economic profit.
9	Market Structure	Students will learn how the market structure impacts the equilibrium price and quantity. They will also learn how a firm decides whether to operate/shut-down in both the short- and long-run. Finally, this module introduces game theory as a way to examine the interdependent decisions between market participants.

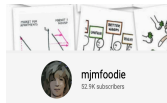


Suggestions for Teaching Online from the Team

- Don't feel like you have to reinvent the wheel! That's the point of this collection. Pick and choose resources to make your course your own.
- Several activities posted in the collection use the [Google Econ Graphing](#) tool. We made an [instruction video](#) for you and your students.
- [The Wall Street Journal](#) and [Econ Inbox](#) send timely articles with discussion questions free of charge. Students can access WSJ articles without a fee through [NCLive](#) (and then choose their institution).
- One way to use the assessment questions in this collection is to embed polling questions in powerpoint presentations to check for understanding and provide low-stakes assessments. (Check to see if your university has an institutional subscription to PollEverywhere or TopHat that connects with your Learning Management System (LMS), e.g. Blackboard, Moodle.)
- [Lumen Learning](#) offers embedded practice questions, discussions and assignments based on the Openstax text.
- Zoom specific tips
 - Use [Google Drawing](#) as a collaborative whiteboard in synchronous class sessions on Zoom. You can share the link privately with a few students through chat to prohibit random drawings from the entire class.
 - Use [Zoom breakout rooms](#) to encourage small team collaboration. If you want students to work in specific groups, you can [pre-assign the participants into breakout rooms](#) before the meeting starts.
 - Use your [ipad as a whiteboard](#) on Zoom. It is much less clunky!
 - Engage students with [polling on Zoom](#).
 - Set Zoom settings to allow [documents to be sent through chat](#) if you want to distribute assignments not posted online.

Video Collections

While there are many microeconomic video collections available, most of the videos referenced in our modules come from the following sources. Instructors who wish to use videos from one source instead of the variety presented in the collection overviews may find the following information useful.

	Burkey Academy 	Rita Balaban 	Jacob Clifford 	MJMFoodie 	Marginal Revolution University 
Access to Full Playlist for Micro economics	Burkey Academy Micro economics Playlist	Balaban Econ 101	ACDC Leadership Micro Playlist	Micro economics Modules	Principles of Economics: Micro economics
Description	Topical and full class-length videos.	Videos produced by Rita Balaban to supplement classes at UNC-CH.	Fast moving, comprehensive list of videos.	Animated, straight-forward videos.	Highly produced videos by textbook authors Tyler Cowen and Alex Taborrak
Notes	Most of these full lecture videos have handouts for students to follow along.		Also look at “CrashCourse Econ” videos for more topics.		Self-assessment questions included after content
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Searchable Keywords

The table below is meant to help locate topics within the resource collection. Topics are generally listed only once - in the module they are first introduced.

	Keywords
Module 1: Economic Decision Making	Definition of economics, scarcity; micro- vs. macroeconomics; allocative efficiency; productive efficiency; specialization; positive vs. normative economics; cost-benefit analysis; trade offs; opportunity cost; marginal benefit; marginal cost; sunk cost; incentives; production possibilities model; budget constraints; growth; technological change.
Module 2: Interactions in the Economy	Comparative advantage; absolute advantage; specialization; gains from trade; mutually beneficial terms of trade (prices); circular flow model; market system; invisible hand; labor/input market; command economy; price and quantity controls.
Module 3: The Market Model	Individual demand; individual supply; market demand; market supply; law of demand; law of supply; market assumptions; market clearing quantities; excess supply; excess demand; market equilibrium; determinants of supply and demand; shifts vs. changes in quantities; utility; diminishing marginal utility; indifference curves; utility maximization; budget constraints.
Module 4: Measuring Market Welfare	Voluntary exchange, welfare, net benefits, marginal cost, consumer surplus, producer surplus, economic (total) surplus, deadweight loss, efficient distribution.
Module 5: Evaluating Government Intervention	Production quota, price floor; price ceiling; per-unit tax; subsidy
Module 6: Analyzing Market Failure	Positive externalities; negative externalities; public goods; market power; common resources; corrective taxes; subsidies; command and control regulation; cap and trade; Coasian bargaining

Module 7: Elasticities	Price elasticity of demand; price elasticity of supply; income elasticity of demand; cross-price elasticity of demand; price elasticity of demand and total revenue; tax incidence
Module 8: Introduction to the Theory of the Firm	Diminishing marginal returns; marginal product; average product; economic cost; opportunity cost; implicit and explicit cost; variable and fixed cost; total cost; marginal cost; total revenue; accounting profit; economic profit; normal profit
Module 9: Market Structure	Perfect competition; imperfect competition; oligopoly; monopolistic competition; monopoly; Profit-maximizing; market power; short-run and long-run shutdown rules, firm entry, firm exit, market supply curve; game theory, nash equilibrium, dominant strategy

Open Educational Resources

The main textbook used for readings in this course is from OpenStax' *Principles of Microeconomics 2e*. Some of the questions and activities were also taken from Lumen Learning's course, *Microeconomics*. Both are cited below, but each instance of use in the modules has the appropriate attribution if you want to copy them into your LMS.

Greenlaw, S., & Shapiro, D. (2017). *Principles of Microeconomics 2e*. OpenStax.

<https://openstax.org/details/books/principles-microeconomics-2e>

"[Principles of Microeconomics 2e](#)" by Steven A. Greenlaw, David Shapiro, [OpenStax](#) is licensed under [CC BY 4.0](#)

Lumen Learning. (2019). *Microeconomics*. Lumen Learning.

<https://courses.lumenlearning.com/microeconomics/>

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