Affordable Materials Grants, Round 18:

Transformation Grants

(Fall 2020 – Fall 2021)

Proposal Form and Narrative

# Notes

* The proposal form and narrative .docx file is for offline drafting and for our review processes. Submitters must use the online Google Form for proposal submission.
* The only way to submit the official proposal is through the online Google Form. The link to the online application is on the [Round 18 RFP Page](https://www.affordablelearninggeorgia.org/about/rfp_r18).
* The italic text provided below is meant for clarifications and can be deleted.

# Applicant and Team Information

*The* ***applicant*** *is the proposed Project Lead for the grant project. The* ***submitter*** *is the person submitting the application (which may be a Grants Officer or Administrator). The submitter will often be the applicant—if so, just list leave the submitter blank.*

| Requested information | Answer |
| --- | --- |
| Institution(s) | University of West Georgia |
| Applicant name | James H. Murphy |
| Applicant email  | jmurphy@westga.edu |
| Applicant position/title | Associate Professor of Economics |
| Submitter name  |  |
| Submitter email  |  |
| Submitter position/title |  |

Please provide the first/last names and email addresses of all team members within the proposed project. Include the applicant (Project Lead) in this list. Do not include prefixes or suffixes such as Ms., Dr., Ph.D., etc.

| Team member | Name | Email address |
| --- | --- | --- |
| Team member 1 | James H. Murphy | jmurphy@westga.edu |

# Project Information

| Requested information | Answer |
| --- | --- |
| Priority Category / Categories*Projects in these categories will receive three extra points in the final score for fitting a priority of these particular rounds of Transformation Grants. The type of funding for the project is determined by the funding categories criteria above. As of Round 18, projects can be a part of more than one category. Note that the below categories only indicate priority, not which applications qualify for a grant. Select all that apply.* | *Priority categories:* Student Participation in Materials Evaluation. |
| Requested Total Amount of Funding*$30,000 maximum total award per grant* | $7,000 |
| Final Semester of Project | Fall 2021 |
| Using OpenStax Textbook?*This is to indicate to OpenStax that they can provide additional support and resources to your team during the adoption process.* | No |

# Impact Data

## Course 1

| Row # | Requested information | Answer |
| --- | --- | --- |
| N/A | Course title and number | Econ 2106: Principles of Microeconomics |
| N/A | Course instructor | James H. Murphy |
| 1 | Average number of students enrolled per section | 38.3 |
| 2 | Average number of affected course sections scheduled in a summer semester | 1.5 |
| 3 | Average number of affected course sections scheduled in a fall semester | 2.5 |
| 4 | Average number of affected course sections scheduled in a spring semester | 2 |
| 5 | Total number of course sections scheduled in an academic year *Add up rows 2-4.* | 6 |
| 6 | Total number of student section enrollments per academic year*Multiply row 1 and row 5.* | 229.8 |
| 7 | Original required commercial materials*Include each title, author, price for a new copy purchased from either your campus bookstore, the publisher, or Amazon, and a URL to the book showing the price.* | Microeconomics, 13th EditionMichael Parkin$253.99 per student https://www.amazon.com/Microeconomics-13th-Michael-Parkin/dp/0134744470/ref=sr\_1\_1?crid=IVIXX0WZV78M&dchild=1&keywords=parkin+microeconomics+13th+edition&qid=1599586605&sprefix=parkin+microeconomics%2Caps%2C168&sr=8-1 |
| 8 | Original cost per student section enrollment*Add up the cost of all materials in row 7.* | $253.99 per student  |
| 9 | Average post-project cost per student section enrollment | $0 per student |
| 10 | Average post-project savings per student section enrollment*Subtract row 9 from row 8.* | $253.99 per student |
| 11 | Projected total annual student savings per academic year*Multiply row 10 and row 6.* | $58,366.90 per year |

## Course 2

|  |  |  |
| --- | --- | --- |
| Row # | Requested information | Answer |
| N/A | Course title and number | ECON 2106: Honors Principles of Microeconomics |
| N/A | Course instructor | James H. Murphy |
| 1 | Average number of students enrolled per section | 9 |
| 2 | Average number of course sections scheduled in a summer semester | 0 |
| 3 | Average number of course sections scheduled in a fall semester | 0 |
| 4 | Average number of course sections scheduled in a spring semester | 1 |
| 5 | Total number of course sections scheduled in an academic year *Add up rows 2-4.* | 1 |
| 6 | Total number of student section enrollments per academic year*Multiply row 1 and row 5.* | 9 |
| 7 | Original required commercial materials*Include each title, author, price for a new copy purchased from either your campus bookstore, the publisher, or Amazon, and a URL to the book showing the price.* | Microeconomics, 13th EditionMichael Parkin$253.99 per studenthttps://www.amazon.com/Microeconomics-13th-Michael-Parkin/dp/0134744470/ref=sr\_1\_1?crid=IVIXX0WZV78M&dchild=1&keywords=parkin+microeconomics+13th+editionn&qid=1599586605&sprefix=parkin+microeconomics%2Caps%2C168&sr=8-1 |
| 8 | Original cost per student section enrollment*Add up the cost of all materials in row 7.* | $253.99 per student |
| 9 | Average post-project cost per student section enrollment | $0 per student |
| 10 | Average post-project savings per student section enrollment*Subtract row 9 from row 8.* | $253.99 per student |
| 11 | Projected total annual student savings per academic year*Multiply row 10 and row 6.* | $2,285.91 per year |

# Narrative Section

## 1. Project Goals

In addition to the yearly student savings estimate of $60,652.81, I anticipate three additional benefits from this project. First, this project will help students focus on core concepts. By creating a text that focuses on the competencies and skills I test on, I’m able to reduce the cognitive investment required for students to develop testable competencies and skills. While mass market texts must cater to a large audience and, consequently, often take an encyclopedic approach, I’m able to be selective. The resulting concise presentation offers a more inviting learning experience than mass market texts, where students must often negotiate many informationally-sparse pages to find the information they need.

Second, the project promotes the efficient use of students’ time. A bit of background: this is not a new project. In fact, its genesis dates back to 1996, when I first began teaching. I’ve been distributing the “course packet” (hereafter, CP) for many years. Over the years I’ve made additions and changes. However, it has, until very recently, been used as an ancillary to the text. I’d ask students to read the CP entry as an introduction to a topic and the text for a fuller treatment. Over time, I noted that data and comments from the Student Evaluations of Instruction on instructional materials identified the CP as a particularly useful resource and often compared it favorably to the text. Hence, if a more robust CP can replace a traditional mass-market text, then students will gain an increasingly valuable resource: time.

The third benefit is increased efficiency in the use of Instructor’s time. At UWG, student abilities vary considerably. Some students are high-achievers who require little instructional time and could almost “teach themselves” given the proper tools. Other students require more instructor effort and support. A tool that allows some students to quickly master the material with a minimum of supervision frees the instructor to invest more heavily in cases where additional support is required. The proposal is sufficiently self-contained to allow students to successfully complete course assessments without additional input. In addition, it may serve as the informational base for a “flipped” classroom where the focus is on applications or extensions of these core concepts.

## 2. Statement of Transformation

Our students face both financial and time constraints. Many of them, by necessity, have outside employment. The proposal is an effort to complete the first component of a triad consisting of content (1) presentation, (2) mastery and application, and (3) testing where *an important consideration is to make course completion as seamless and efficient as possible*. To do this while providing complete coverage of introductory microeconomics, I’ve worked in reverse order—I began by focusing on testing, then moved to skill-building exercises, and now I’m focusing on exposition.

The content and emphasis of the course reflects that of the microeconomics version of the National Council on Economic Education’s Test of Understanding in College Economics (TUCE).[[1]](#footnote-2) Since the TUCE’s answer key is widely available and the questions underemphasize the applied focus appropriate for students in a business school, I write my own exams. To prepare for the tests, I’ve written a set of 20 exercises that challenge students’ comprehension of the material and their ability to apply it. The course packet, the focus of this proposal, is designed to present the core material explored in the exercises and tested in the exams as succinctly and directly as possible. This direct quotation from the Summer 2020 SEI for my online section illustrates what I’m attempting

 “The materials, assignments, and activities given for this class were too [sic] the point. They covered exactly what needed to be covered, and were to the point. For the first time ever (for online classes, and I have taken many) I did not feel that everything I was reading was useless. Everything he provided had a purpose in helping teach/learn the content.”

## 3. Action Plan

The CP in its current form is a series of pdf files distributed to students through email and CourseDen, UWG’s Learning Management System. Thus, the material is both readily available and easily transferrable, and I would anticipate continuing with this format and method of distribution. The CP currently includes 21 chapters, each of which has explanatory material and at least one associated exercise. These chapter are

Introduction

Consumer Equilibrium and Income Changes

Individual Demand

Market Demand

Firm Supply

Market Supply

Market Equilibrium

Market Equilibrium Adjustments to Supply and/or Demand Shifts

Total Surplus

Elasticities

Theory of the Firm

Short Run Production

Short Run Cost

Long Run Production and Cost

Market Structure Overview

Perfect Competition

Monopoly

Monopolistic Competition

Oligopoly

Input Markets: Labor Demand

Market Failure and Policy Failure.

Based on the scores on the associated exercises, I propose changes to improve performance to the chapter on Individual Demand by adding step-by-step instructions for the construction of logic chains. Logic chains are an approach I have found particularly useful in helping students identify how to model changes in planned consumption. I also propose to include a similar treatment to incorporate logic chains in the chapter on Firm Supply. A third change is to add new material to the section on Market Equilibrium adjustments to Supply and /or Demand Shifts. In this case, the goal will be to more fully explain market adjustments when both Supply and Demand curves shift using a version of logic chains. As a fourth change I proposed to expand the exercises for Perfect Competition in the Short Run Exercise to incorporate a range of price scenarios to expose students to positive, zero, and negative profit situations. Lastly, I want to more fully develop the discussion of firms’ long run entry and exit decisions using a checklist-based approach to help students identifying the conditions under which firms enter or exit a market.

These changes represent a considerably investment of time and effort. Each aspect of the proposal represents weeks of drafting and editing (depending in no small part on the degree of cooperation offered by Equation Editor).

## 4. Quantitative and Qualitative Measures

In addition to Student Evaluation of Instruction (SEI) and grade point averages (GPA), I will report the percent correct on each exercise. To put this in statistical terms, the project will be successful if students receiving the updated CP score higher on the associated exercises.[[2]](#footnote-3) The pre-change cohort will include data from Summer and Fall Semester 2020. The post-change cohort will be Spring and Summer 2021. The additional text and exercises will be developed October 2020 through April 2021.

In addition to pre- and post-comparison of exercise scores, I will offer students a survey to rate each section on the question “The reading prepared me to successfully complete the exercise”. I’ll use a Likert scale of 1-7 where 1 represents “did not prepare me at all” to 7 “completely prepared me”. This will be used to identify other chapters for further development for later, continuous improvement proposals. Another question to potentially include in the survey include “how many minutes did you spend reading this chapter?” and “how long did you spend completing the exercise?” to measure engagement and efficiency. Paired comparison of exercise scores between students accessing main-stream text versus students utilizing the CP would be possible, but not contemplated at this time (with a third possible treatment being students with access to both the CP and main-stream text).

## 5. Timeline

October 2020-April 2021 Revise Individual Demand chapter to illustrate logic chain construction for (1) income changes, (2) related goods, and (3) change of preference.

 Revise Firm Supply chapter to incorporate construction of logic chains for (1) input price changes, (2) technological change, and (3) change of the price of related goods.

 Revise Market Equilibrium Adjustment to Supply and/or Demand Shifts chapter to incorporate logic chains into discussion of simultaneous shift of supply and demand curves.

Rewrite Perfect Competition in the Short Run Exercise to incorporate firm responses to price changes.

Rewrite all four market structure chapters--Perfect Competition, Monopoly, Monopolistic Competition, and Oligopoly to incorporate a check-box approach to analyzing a firm’s long run entry and exit decisions.

 Rewrite text or exercises to satisfy any identified trademark or copyright issues.

January-April 2021 Administer survey to Spring semester classes

June/July 2021 Administer survey to Summer semester class

August 2021 Tabulate results and write final report.

Fall 2021 Submit final report.

## 6. Budget

Murphy Salary $5,000

Copyright Clearance $2,000

Total $7,000.

## 7. Sustainability Plan

I anticipate using and updating the CP (to be renamed “A Brief Introduction to Microeconomics” soon hereafter) for as long as I teach ECON 2106: Principles of Microeconomics. I have taught at least two sections of 2106 each semester during my tenure at UWG and anticipate that will constitute a majority of my course load in the future.

Other instructors, whether at UWG or elsewhere, are welcome to use it based upon their own pedagogical needs. I have given copies to other instructors here at UWG as well as to former UWG instructors who now teach elsewhere.

# Creative Commons Terms

*I understand that any new materials or revisions created with ALG funding will, by default, be made available to the public under a Creative Commons Attribution License (CC-BY), with exceptions for modifications of pre-existing resources with a more restrictive license.*

# Accessibility Terms

*I understand that any new materials or revisions created with Affordable Learning Georgia funding must be developed in compliance with the specific accessibility standards defined in the* [*Request for Proposals*](https://www.affordablelearninggeorgia.org/about/rfp_r18)*.*

# Letter of Support

*The Department Chair from the corresponding project, or the Department Chair’s direct report such as the Dean or Provost, must provide a signed Letter of Support for the project. This letter should acknowledge the following:*

* *The department will provide support for fund disbursement in correspondence with the Grants/Business Office.*
* *The department approves of the work on the proposal by the applicant(s).*
* *The department acknowledges the sustainability of the use of these affordable resources after the grant work is complete.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide a letter of support.*

*Please provide the name and title of the department chair (or other administrator) who provided you with the Letter of Support.*

|  |
| --- |
| Dr. William J. Smith, Chair, Department of Economics |

# Grants or Business Office Letter of Acknowledgment

*Institutional Grants/Business Offices will be responsible for fund disbursement, often in correspondence with the Department Chair, including expense and travel reimbursement. Applicants will need to provide a short Letter of Acknowledgment stating that the Grants/Business Office knows about the applicant’s intent to apply for an Affordable Materials Grant. Either the Department Chair or the Project Lead can work with the Grants/Business Office to get this signed letter.*

*In the case of multi-institutional affiliations, all participants’ institutions must provide a letter of acknowledgment.*

*Please provide the name and title of the grants or business office representative who provided you with the Letter of Acknowledgment.*

|  |
| --- |
| Denise Overfield, Ph.D., Associate Vice President for Research |

1. <https://www.econedlink.org/wp-content/uploads/2018/09/TUCE-4th.pdf> [↑](#footnote-ref-2)
2. The null hypothesis would be that students exposed to the new material perform as well as or more poorly than those not receiving the updated information. [↑](#footnote-ref-3)