Affordable Learning Grant – Fall 2022 Final Report

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Background:

Every fall, the University of Scranton runs ENGR/PHYS 150 for all first-year physics and engineering students. In the past, student have been required to purchase: Intro to computing python. Two drawbacks to this book are the outdated nature of the textbook (as python is an open source software and constantly updating) and the cost (about $100 per student). The Affordable Learning Grant allowed me to find an open access textbook through the library which was free to the students and a better text book, in my opinion. The layout of the online textbook aligned very well with the structure of the course as well. This book was, *Python for Everybody: Exploring Data Using Python 3*, by Dr. Charles R. Severance.

Impact:

My section had 17 students who benefitted from the Affordable Learning Grant. In addition, I shared the information with two other professors who were teaching different sections of the same course. In total, about 40 students benefited from this one Affordable Learning Grant.

Preparation and Adaptation of Online Textbook:

While the online textbook was a wonderful resource and lends itself very well to this course, all of my lesson plans and homework were developed for the old textbook. Over the summer, I spent hours reviewing the online textbook, rewriting lecture notes and examples, and determining new homework assignments. I also had to ensure we were covering the same skills and topics from the old textbook. Those skills learned in the first half of the semester are applied to the students' capstone project of programming a micromouse. Once I completed the transition of notes and homework, I was able to share my work with the two other instructors. I designed the homeworks in the same format and number of assignments, so it was a fairly straightforward transition.

Assessment:

At the end of the semester, all students were asked to fill out a brief, 3-question survey. The survey was available on Brightspace and anonymous. 24 students responded. Of the students who responded, the overwhelming majority stated that the free online textbook was a valuable resource. Additionally, I found that the majority (20 of the 24 students) prefer online textbook to print textbooks. And all but two students would recommend keeping the free open access textbook as the course textbook. The results are provided at the end of the report.

Discussion:

The general feedback from the students was very positive about the textbook. Looking at the individual responses, I noticed the individual who stated disagree to question 1, also preferred print textbook(s).

Future:

I believe this book was very relevant, timely, and a great resource. In the future, I plan to keep this open access text book.

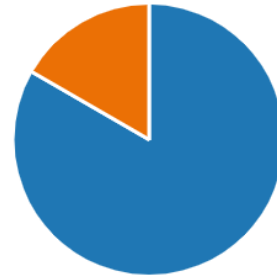1. The free online textbook was a valuable resource.

More Details   🔆 Insights

🔵	Strongly agree	13
🟠	Agree	10
🟢	Neutral	0
🔴	Disagree	1
🟣	Strongly disagree	0

2. I prefer online textbook(s) to print textbook(s)

More Details

🔵	True (prefer online textbook(s))	20
🟠	False (prefer print textbook(s))	4

3. I would recommend keeping the free online textbook in the future.

More Details   🔆 Insights

🔵	Yes	22
🟠	No	2