

Affordable Learning Implementation Grant Final Report
PT 713/713L – Orthopedic Physical Therapy I, Spring 2025
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Background

I would like to express my sincere thanks to the Affordable Learning Implementation Grant Committee and the staff of the Weinberg Memorial Library for their support of this initiative. This project allowed me to replace two costly textbooks with a curated set of high-quality, evidence-based, no-cost learning materials for PT 713/713L – Orthopedic Physical Therapy I.

In fall 2024, I distributed a brief Google survey to assess student use of required course textbooks. Of the 34 students enrolled, 22 responded. Ninety-one percent (20/22) reported not purchasing the required textbooks, with 80% citing cost as the main reason. Students primarily relied on the PowerPoint slides I developed for studying, both during the course and on their clinical rotations.

This report summarizes the implementation process, student engagement with the materials, and my reflections on the impact of this initiative. I am grateful for the opportunity to contribute to a more accessible and affordable learning environment for our students.

Open Educational Resources (OER) Used

- **UpToDate** is an evidence-based clinical resource that provides regularly updated articles on the evaluation and treatment of various medical conditions, including orthopedic diagnoses relevant to physical therapy education. It was used as a reference for lecture presentations and as a source for supplemental student readings.
- **Peer-reviewed journal articles** from the Weinberg Memorial Library (or open-access) were incorporated into assigned readings, lecture references, and optional supplemental materials. Assigned readings were provided for approximately two-thirds of the lectures. The most frequently used journals included:
 - *Journal of Orthopaedic and Sports Physical Therapy (JOSPT)*
 - Clinical practice guidelines (CPGs)
 - CPG summaries
 - *JOSPT Cases*
 - *International Journal of Sports Physical Therapy*
 - *Physical Therapy in Sport*
 - *Sports Health*
 - *American Journal of Sports Medicine*
- **Freely available, high-quality websites** such as Physiopedia and Radiopaedia were also recommended as supplemental resources for student reference.

- Physiopedia (www.physio-pedia.com)
- Radiopaedia (www.radiopaedia.org)

Outcomes & Impact

The impact of this implementation was evaluated using a Google Forms survey, which students completed during the final lecture of the semester. The survey assessed two main components: student preferences and satisfaction with the free resources, and how frequently those resources were utilized. An open-ended question was also included to allow students to provide additional feedback. All 22 students enrolled in the course completed the survey (100% response rate).

All students (22/22, 100%) indicated that they preferred free resources over a required textbook. Satisfaction was rated using a 5-point Likert scale, where “1” represented “very unsatisfied” and “5” represented “very satisfied.” The mean satisfaction rating was 4.7, with 68% of students (15/22) reporting they were “very satisfied” with the available free resources.

While all students continued to primarily rely on lecture and lab slide presentations for studying (100%), many also reported using additional resources: 77% used journal articles, and 27% used UpToDate. Below are selected student comments regarding their use of the free course materials:

- “CPGs were a helpful additional tool especially when briefly incorporated into the lecture slides.”
- “I really liked the CPG summaries to help get a general idea, and the format the slides being consistent throughout made it easy in understanding different concepts.”
- “Course materials are very easy to understand and access, and free resources are relevant and pertinent to lecture/lab slide info– and are easier to refer to than a textbook.”
- “I thought linking the CPGs was extremely helpful as well as the summaries of each. I used the provided material a lot throughout the semester with quizzes and preparing for exams.”

Compared to the previous year when a required textbook was used, average student grades improved in the lecture course and remained the same in the lab course.

- PT 713 (lecture)
 - Spring 2024: final written exam 89.4%, overall course grade 91.7%
 - Spring 2025: final written exam 91.6%, overall course grade 94.1%
- PT 713L (lab)
 - Spring 2024: final practical exam 96.9%, overall course grade 97.0%
 - Spring 2025: final practical exam 96.3%, overall course grade 97.1%

Estimated cost savings from replaced textbooks:

- *Dutton text*: \$146
- *Kisner text*: \$75
- *Total savings per student*: \$221

Challenges

The primary challenge for instructors transitioning to OER materials is the increased time required to prepare and organize content. This includes researching appropriate resources, identifying and resolving conflicting information, and formatting materials with links in Brightspace. In addition, instructors must educate students on how to locate, access, and benefit from the available resources.

Conclusion

The implementation of no-cost, evidence-based resources in PT 713 (Orthopedic Physical Therapy I) significantly benefited students by improving accessibility to high-quality learning materials while eliminating the financial burden of purchasing textbooks. Survey results indicated universal preference for free resources, with high levels of satisfaction and meaningful engagement with supplemental materials such as journal articles, UpToDate summaries, and clinical practice guidelines. The improvement in lecture course performance compared to the prior year further supports the effectiveness of this transition, while student comments reinforced the value of integrating these materials. These findings suggest that OER-based instruction not only reduces cost but also aligns well with the way students prefer to learn and study.

Moving forward, I plan to continue using and refining this model in future iterations of the course. I will further streamline the organization of resources in Brightspace, provide clearer guidance on accessing and using materials, and continue to seek additional content that complements the evolving curriculum. The positive response from students and alignment with course objectives strongly support ongoing use of no-cost resources. I also intend to explore similar transitions in other courses I teach, with the goal of expanding the academic and financial impact of affordable learning practices across the curriculum.