

ABSTRACT

Applicant Institution: Scottsdale Community College

Partner Institution: Scottsdale Community College (SCC), the Maricopa County Community College District (MCCCD), and a consortium of four sister colleges (Phoenix College, Chandler Gilbert Community College, Rio Salado College, Mesa Community College with additional IHEs to include Arizona State University, Rice University (OpenStax), Carnegie Mellon University, Massachusetts Institute of Technology, Montgomery College, Leeward Community College, Salt Lake Community College and the American Association of Colleges and Universities and partner organizations including Community College Consortium for Open Educational Resources, Driving OER Sustainability for Student Success (DOERS3), National Consortium of Open Educational Resources (NCOER), The Rebus Foundation, Pressbooks, and the Arizona Office of Economic Opportunity.

Project Title: Open 4 Peer Review

Target Population: Community college and university students enrolled in high enrollment (top 50 high enrollment courses) and courses needed to address workforce priorities.

Services and Proposed Activities:

Open 4 Peer Review program aims to increase faculty adoption and adaptation of Open Educational Resources (OER) by developing and applying standards and rubrics to course materials for high enrollment courses. The consortia will provide the following:

1. Data Collection & Analysis
2. Standards Development
3. Rubric Development
4. Peer Review Management System (PRMS) Technology Development
5. New OER Materials Development, Peer Review, and Use
6. Standards and Rubric Use
7. Sustainability Plan

Anticipated Results: All materials developed and reviewed will be guided by quality standards developed through the program, and rubrics will be developed to assess adherence to those standards. The goal is to create high-quality OER materials that faculty will find valuable and easy to adopt, and it is anticipated that the project will reach at least 20,160 students who will save a total of \$2,845,382.40

Absolute Priority Addressed: Yes, The Open 4 Peer Review program will satisfy the absolute priorities of the Open Textbook Pilot Program by promoting student success, improving collaboration and dissemination, addressing gaps in the open textbook marketplace, and bringing solutions to scale, using technology-based strategies for personalized learning and continuous improvement.

Competitive Preference Priorities Addressed: Yes, partnering with Carnegie Mellon

Invitational Priority Addressed: Yes, participation by minority serving institutions

1. **Applicant institution:** Colorado State University Fort Collins
Partner institutions: Colorado School of Mines and Colorado State University Pueblo
2. **Project title:** Engineering a Trajectory of Success: Open Educational Resource Creation
3. **Target Population:** faculty (direct) and students (indirect)
4. **Services and Proposed Activities:** Creation of 2D, 3D, animated, parametric, and computational visualizations to support learning objectives in Statics, Mechanics of Materials, and Dynamics courses informed by a community of engineering instructors through interactive workshops and an active advisory board of industry and education stakeholders.
5. **Anticipated Results:** OER visualizations will be organized and scaffolded on a website to support implementation supporting broad implementation. Visualizations will improve retention, increase student learning outcomes, and provide cost savings to students.
6. **Absolute Priority Addressed:** Yes
 - Absolute Priority 1: The consortium will work together to provide materials in foundational engineering topics courses that have wide application and are supported by increasing numbers of engineering students and demand for engineers in the workforce.
 - Absolute Priority 2: Materials created in this project fill an important gap in open educational materials for engineering courses and comprehension that are currently only available through expensive commercial platforms.
 - Absolute Priority 3: The project directors have experience in OER usage in courses, and they will assess student success and efficacy of OER materials, then present results through conferences and publications in the field.
7. **Competitive Preference Priority Addressed:** Yes; support for instructors implementing OER through hierarchical structure and conceptual progression; support for universal design with multiple modes to engage with engineering mechanics content that support broad learner styles; and use of digital technologies and simulations to engage students building on research demonstrating student engagement and performance increases working with animations and interactive visualizations across different learning styles.
8. **Invitation Priority Addressed:** Yes; Colorado State University Pueblo is a Hispanic Serving Institution
9. **Projected direct cost savings for students:** \$78,900/year for Colorado State University Fort Collins, Colorado School of Mines, and Colorado State University Pueblo students

ABSTRACT

- 1. Marquette University School of Dentistry (MUSoD)**, in consortium with **Chippewa Valley Technical College (CVTC)**, **Milwaukee Area Technical College (MATC)**, and **Brigham Young University (BYU)**.
- 2. Establishing the Open Dental Education Consortium (ODEC)**
- 3. The target population** will be students of dental programs (e.g., predoctoral DDS/DMD, dental hygiene, dental assisting). A major gap exists in open education such that open educational resources (OER) as a philosophy or practice have not been incorporated at scale into dental education. Dental students from two-year degree granting institutions as well as doctoral level provider programs will be the beneficiaries of OER created by consortium institution faculty members in collaboration with student instructional designers and the infrastructure created by the proposed consortium.
- 4. The proposed services and activities** will include targeted training and faculty development opportunities to educate faculty and stakeholders about OER, to identify faculty members interested in creating and/or adopting OER for their courses, to pair them with graduate student instructional designers to create high quality and high impact OER, and to transition to their use in the creation of faculty courses. Utilizing the robust existing platform of EdTech Books (edtechbooks.org) in the background, ODEC will host its own alias site, opendentaled.org, as the repository for all dental education open resources that are a result of this project and others that will join over the years. The steering committee and founding members of the consortium have identified at least six different books or packages of resources that will be the first targeted products of the grant.
- 5. The impact and anticipated results** of this project are that ODEC resources will be used in dental education institutions throughout the United States and, as more resources are created and adopted, throughout the world. The initial goal of the grant will be that each dental education organization within the consortium converts at least 25% of their curriculum to use OER within the three-year grant period. In so doing, at least 530 students at the consortium level will save at least \$1,000 each, totaling around \$530,000 total cost savings across the targeted degree programs during the grant period. The consortium will work together with other technical colleges and dental schools to grow consortium membership throughout the grant, leading to greater savings and impact. In addition, it is anticipated that student performance, engagement, and use will increase, ultimately resulting in improved student learning.
- 6. Each of the three Absolute Priorities** are addressed, including 1) improved collaboration across MUSoD, MATC, and CVTC, all of which have existing educational collaborations that will be enhanced by shared OER resultant of this project, with the technical support of BYU's instructional design program. This project will 2) address gaps in the OER marketplace and 3) promote student success by allowing dental careers to be more accessible, affordable, and equitable, ultimately removing barriers for an increased number of students from all backgrounds to gain access to well-paid positions, including from two-year programs.
- 7. The Competitive Preference Priority** is via the robust nature of edtechbooks.org, which allows for learning management system integration and thorough data collection and evaluation abilities to maximize personalized learning experiences.
- 8. The Invitational Priority** is also addressed with the inclusion of technical colleges CVTC and MATC.
- 9. Projected direct cost savings to students is at least \$530,000** during the three-year grant.

ABSTRACT

The Career and AI Readiness while Remixing Open Textbooks through an Equity Lens (CA-ROTEL) project will produce open textbooks and corresponding ancillary materials for 17 high enrollment general education courses. The three institutions involved include Northern Essex Community College (NECC), an Hispanic Serving Institution, Framingham State University (FSU), an emerging Hispanic Serving Institution, and UMass Lowell (UML), a minority serving (AANAPISI) public research university. Our approach is to intentionally embed DEI, accessibility, and career and generative AI technology readiness in the development of the open textbooks and ancillaries. Teams will co-create OER (free, open textbooks, that will replace traditional, commercial textbooks) and ancillary materials (resources that can be used with an open textbook, such as a bank of test questions and answers, videos, or sample exams). Students will develop critical competencies to succeed in their courses, realize the connection of their course and its relevance to a future career, relate better to the content that is accessible and inclusive, and engage critically with technology. CA-ROTEL builds upon the work of the DOE Open Textbook Pilot 2021 funded grant “Remixing Open Textbooks with an Equity Lens” (ROTEL).

CA-ROTEL represents all three segments of the Massachusetts public higher education system: community college, state university, and UMass university. The project goals are to:

- Eliminate textbook costs for students in high-enrollment general education and career and professional courses.
- Improve student learning outcomes, particularly for students from underserved communities.
- Create a sustainable model of OER development, publishing, and revision.