



Open Learning Initiative

Carnegie Mellon University

Transforming higher education through the science of learning.

“An amazing and critical piece of work...The idea of these virtual labs and intelligent tutoring systems, I think, can really revolutionize education. And we need to revolutionize education.”

Bill Gates

Bill and Melinda Gates Foundation

“Information per each module is very concise and has nice big visuals... I also like the ‘Did I Get This’ between each section which does a very simple preliminary quizzing to see if the student has come to an understanding of the material in the module.”

Student Pilot Participant

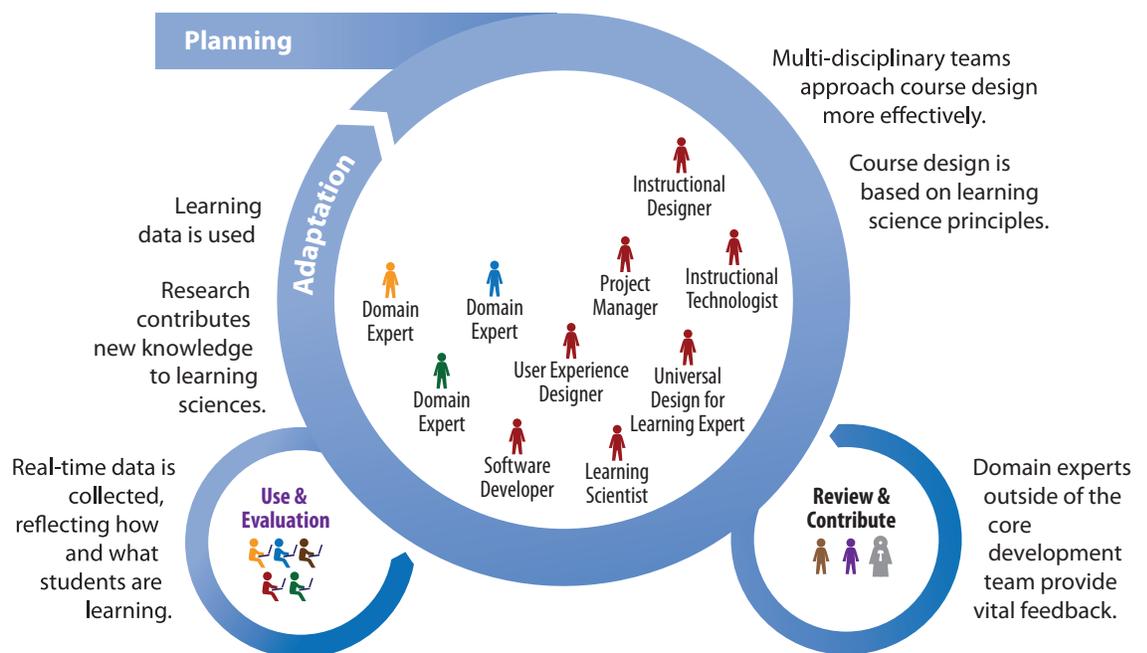
Invitation to Participate

Carnegie Mellon University’s Open Learning Initiative (OLI) invites community colleges to join in the **use and evaluation** of online learning environments for four gatekeeper courses: **Statistics, Anatomy & Physiology, Biology, and Psychology.**

Since 2002, OLI has been building scientifically-based courses that support faculty and students to demonstrably improve learner outcomes. Building on that success, OLI has worked with teams of community college faculty to develop four courses targeting subjects with high enrollment and low success rates. This community-college project has been funded by multiple foundations with a **goal of increasing student success by 25%**. OLI seeks institutions and faculty to participate in the evaluation and improvement of these courses by using the materials to support instruction in their own classrooms.

Participants will be given free access to online student materials, including labs, assessments, and tutors, as well as faculty tools and analytics providing timely feedback on students’ learning, misconceptions, and progress.

Courses have been developed and piloted using OLI’s team-based approach; key to this effort has been a deep involvement from community college faculty members, ensuring that the courses target areas that are specifically challenging to community college students.



Our process and collaborators. We are seeking participants for the Use & Evaluation phase of four courses.

COURSES

Statistics

An introductory statistics course; these materials can serve as a textbook replacement for a semester-long course. Course topics include Exploratory Data Analysis, Producing Data and Study Design, Probability and Statistical Inference.

Anatomy and Physiology

A rich supplement to traditional texts, the course addresses HAPS outcomes and focuses on areas known to be challenging for students. Topic coverage is built for A&P I and II, and includes: Levels of Organization; Homeostasis; Skeletal, Muscular, Integumentary, Digestion, Nervous, Cardiovascular, Endocrine, Lymphatic, and Respiratory Systems.

Biology

A one-semester introduction to biology course; these materials target outcomes for a general education, non-majors population. Topics are: The Cell, Metabolism, Cell Division, Chemistry, Organic Molecules, Classical and Molecular Genetics, Evolution, and Ecology.

Psychology

An introductory psychology course emphasizing scientific methods. These materials can serve as a textbook replacement, and an open textbook is available as a companion text. Coverage includes: Research Methods, Sensing and Perceiving, Memory, Language, Intelligence, Personality, Psychological Disorders, Treatment, and Consciousness among other topics.

Ways to Participate

Formal Study Participation

This formal evaluation requires an institutional commitment for at least two faculty members to participate in one course; only one of these faculty would use the OLI materials. All faculty would administer pre- and post-tests and collect student demographic and contextual data.

Informal Evaluation

Individuals and institutions that are unable to commit multiple instructors or provide full data can still participate in a less rigorous study. Informal participants will be asked to provide feedback, pre- and post-test scores, and more limited demographic data.

Course Materials Use

Faculty may make use of course materials without participating in more involved studies. Student interaction data may contribute to ongoing research, but additional data will not be collected.

Benefits

Free access to scientifically designed learning environments, which include student-centered measurable learning outcomes, tutors, virtual labs, simulations, and frequent opportunities for assessment and feedback.

Real time teaching tools, including reports and dashboards on estimated learning gain.

A community of practice with other involved faculty.

Active participation in timely, ongoing research.

Honorarium and sub-awards may be available for some participants.

Participate in leading work at the intersection of technology, learning science, and education.

Learn More

<http://oli.cmu.edu> Visit us on the web.

oli-participate@andrew.cmu.edu Email us to get involved.

