

# MIT OPEN LEARNING

## EXPANDING MIT'S KNOWLEDGE AND GLOBAL IMPACT

MIT Open Learning leverages the latest technological and pedagogical developments to transform teaching and learning at MIT and to expand MIT's *mens et manus* ("mind and hand") educational philosophy beyond campus. Our efforts support MIT faculty and students in enhancing residential education and innovating new ways to share MIT's knowledge and promote lifelong learning.

In so doing, Open Learning furthers MIT's mission of generating, disseminating, and preserving knowledge and working with others to bring this knowledge to bear on the world's great challenges.

## ADVANCING EQUITABLE ACCESS FOR ALL LEARNERS

Our work is rooted in a philosophy of openness. Many of our resources and programs are free, open, and accessible, opening up MIT's curriculum to the world and offering opportunities for everyone to learn with and from MIT. We create innovative digital learning experiences that break down barriers to education and harness MIT's strengths in research and technological innovation.

[MIT Learn – Open Learning's new AI-enabled destination for all of MIT's non-degree lifelong learning opportunities](#) – exemplifies how we are using the latest technologies to advance access to high-quality education. With an AI-powered recommendation tool called "AskTim," select offerings featuring an AI tutor, and personalized learning features in development, MIT Learn uses generative AI to help learners on campus and worldwide make the most of MIT's digital courses and educational resources.

## FUNDING PRIORITIES

### Universal Learning

- Advance MIT Learn's transformation into a unified platform for MIT's lifelong learning resources and opportunities, including building out Learn's generative AI-powered personalized learning capabilities.
- Support the expansion of Universal Artificial Intelligence (AI) to teach the fundamentals of AI to a broad audience and deliver modules on AI in the context of specific areas, such as climate, law, the social sciences, music, finance, medicine, and more.
- Replicate Universal AI's model to develop new Universal Learning content in strategic, cross-discipline topics such as biology, climate/energy, healthcare, and manufacturing.

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Our new **Universal Learning** initiative offers innovative educational content in cross-disciplinary topic areas such as AI for learners of all backgrounds. Universal Learning launches with **Universal Artificial Intelligence (AI)**, a dynamic online learning experience that offers foundational modules to increase learners' AI fluency and vertical modules that cover domain-specific applications of AI.

Universal AI and future Universal Learning areas such as Universal Biology and Universal Climate will live on MIT Learn and leverage its generative AI-powered personalized learning system, which can advise on custom learning journeys, answer course-specific questions, reinforce concepts from course materials, and help learners on quiz and homework questions.

Future developments to our tutoring system will analyze student quiz responses, identify concept-level misunderstandings, and use text-to-speech (TTS) voice synthesis tools that generate high-fidelity audio in the instructor's voice – moving MIT toward personalized learning at scale.

## **IMPROVING LEARNING AND TEACHING**

MIT Open Learning's efforts are supported by a scientific understanding of teaching and learning. We collaborate with MIT faculty, students, and staff to better understand how people learn, how they can learn better, and how to use digital technologies to augment teaching on campus and online.

For example, our Disciplinary Experts in Learning Technology and Applications (DELTA) is comprised of instructional staff and education postdocs from across academic departments and disciplines at MIT. From biology to physics, materials science to philosophy, DELTA members both lead and collaborate on a wide variety of educational projects for both MIT students and Open Learning's global community of learners.

The DELTA team combines expertise in science, engineering, and the humanities and social sciences with extensive knowledge of digital learning best practices, enabling members to support departmental digital learning solutions while also serving as subject matter experts and departmental liaisons within Open Learning.

We welcome philanthropic support of MIT Open Learning to advance MIT's forward-thinking work at the intersections of technology, learning science, and open education.

## **ADDITIONAL FUNDING PRIORITIES**

### **Open Education**

- Create educational content and share MIT's teaching with learners worldwide through online courses, open content libraries, and platforms like MIT Learn, OpenCourseWare, and the MIT Open Learning Library.
- Continue to create and maintain open educational resources that reduce the cost of learning worldwide.
- Pilot projects that invite participation, collaboration, and reuse by educators and institutions.
- Build capacity for collaborations across sectors committed to knowledge as a public good.

### **Residential Education**

- Develop pilots to test AI tutor supports for student learning that model and integrate with effective pedagogies such as social learning and project-based learning.
- Support research, events, pedagogical developments on climate change, AI, and machine learning, with areas of inquiry ranging from climate and AI literacy to the ethical questions raised by new technologies.
- Promote and foster a community of educators, researchers, and technologists engaged in developing and supporting effective learning experiences in online learning environments through xTalks, a forum to share, showcase, and disseminate educational innovations and promising works in progress.