

DIGITAL LEARNING

MITx

MITx (<https://openlearning.mit.edu/beyond-campus/mitx-edx-moocs/courses>) is the Institute's interactive learning initiative that offers online versions of MIT courses. MIT instructors teach these MITx courses to learners around the world, delivered through either the edX (<https://www.edx.org/school/mitx>) or MITx Online (<https://mitxonline.mit.edu>) platforms.

Many people refer to MITx courses as MOOCs—massive, open, online courses. The learning experience features multimedia and video content, embedded quizzes with immediate feedback, online laboratories, and peer-to-peer communications. Course materials are organized and presented in ways that enable students to learn at their own pace and that allow for the individual assessment of each student's work. Students who demonstrate their mastery of subjects may earn certificates of completion. MITx operates on a cost-free, open-source, scalable software infrastructure.

The vast array of data gathered through MITx global and residential uses is helping educational researchers better understand how students learn and how technology can facilitate effective teaching both on campus and online. Research findings are then introduced into new generations of learning tools, creating a continuous loop of educational innovation.

MITx also offers MicroMasters programs (<https://micromasters.mit.edu>). MicroMasters programs offer professional and academic credentials for online learners from anywhere in the world. Learners who pass an integrated set of MITx graduate-level courses, and one or more proctored exams, can earn a MicroMasters program credential from MITx, and can then apply for an accelerated, on campus, master's degree program at MIT or dozens of other pathway universities (<https://micromasters.mit.edu/pathways-graduate-programs>) around the world.

MIT OpenCourseWare

MIT OpenCourseWare (OCW) (<http://ocw.mit.edu>) is a free, open, publicly accessible web-based resource that offers high-quality educational materials from more than 2,500 MIT courses—virtually the entire MIT graduate and undergraduate curriculum—reflecting the teaching in all five MIT schools and 33 academic units. This coverage in all disciplines makes OCW unique among open education offerings around the world. MIT continually updates OCW, adding new courses as they become available and refreshing existing courses with new materials.

Through OpenCourseWare, MIT faculty share their teaching materials with a global audience of teachers and learners. Educators use these resources for teaching and curriculum development, while students and self-learners draw upon them for self-study or supplementary use. In a typical month, the OCW website attracts about 2 million

visits from virtually every country in the world, with more than 500 million visits and 5 billion minutes of use since its launch in 2002.

Beyond its service to a worldwide audience, OCW has significant impact at MIT. Students use OpenCourseWare resources such as problem sets and exams for study and practice. New first-year students often report that they checked out MIT by looking at OCW before deciding to apply. Instructors regularly refer students to OCW for part of their coursework. OCW staff work extensively with faculty to develop and refine course materials for publication, and faculty frequently use these updated materials in their classroom teaching. Alumni access OCW materials to continue their lifelong learning.

OCW course content includes many thousands of individual resources such as syllabi, lecture notes and videos, problem sets and exams with solutions, reading lists, online textbooks, sample student work, and more. More than 150 courses include video lectures for the entire course. The OCW YouTube channel has over 4.5 million subscribers, with millions of views across thousands of videos. Beyond core academic content, features such as the Educator portal and the Chalk Radio podcast allow MIT faculty to share insights on teaching and pedagogy, while the Stories page lets learners around the world share the impact OCW has had on their lives.

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