

MOOCs

MOOC stands for "massive open online course" and is a form of distance education, with almost all of the teaching and learning occurring online. By definition, a MOOC offers open access to the public, meaning it's open for anyone to sign up and learn whatever topic is being taught. Hence the two "Os" in the name MOOC: for "open" and "online." Some MOOCs are free, charging students nothing to participate. Others charge a fee for access, but typically the price is a fraction of what it would cost to take a comparable course on campus at an accredited university.

MOOCs are a relatively new flavor of online learning, particularly their size. Most are very large courses, with thousands of people signing up and participating. A MOOC is all about scale, hence the "massive" or "M" part of its name. Students generally do not receive college credit or degrees for MOOC courses they take, though that is already starting to change as some MOOCs partner with traditional universities to offer credit. Other MOOCs give signed certificates to students who finish the courses.

During 2011 and 2012, MOOCs picked up steam in the American higher education system, as a number of online startups offering them partnered with well-known colleges and universities to put established professors online to teach MOOCs. Stanford University was among the first notable education institutions to try offering large lecture classes online for free in 2011. Since then, all kinds of startups have developed platforms for these large open classes.

Some MOOCs rely on the equivalent of social media tools to allow students taking the courses to do peer review of each other's work, and utilize similar "crowdsourcing" techniques in order to deal with the massive size of the classes. Others do less human crowdsourcing and rely more on electronic feedback being doled out to students through automated responses to their online input.

Potential downsides to taking MOOC courses, compared to on-campus degree programs, include:

- Lack of accreditation standards or degrees associated with most of the programs.
- Challenge of motivating students through an impersonal online environment where little if any human interaction occurs

Upside, of course, most MOOCs are free for now, so if learning is the sole objective, and someone doesn't feel they need a certificate or degree to prove they got the learning, the MOOCs offer tremendous upside.

Major MOOC startups include:

[Coursera](#) -- was founded by professors at Stanford University, Daphne Koller and Andrew Ng. Coursera quickly partnered with various top-tier universities to put some of their courses online as MOOCs, including Princeton university, the University of Pennsylvania, the University of Michigan and the founders' own school Stanford. Through Coursera, learners can choose from over a hundred massively open online courses for free. Coursera is a consortium of collaborating colleges including California Institute of Technology, University of Washington, Stanford University, Princeton University, Duke University, John Hopkins University, and many others. Classes start regularly and are available in a wide breadth of subjects including Fundamentals of Pharmacology, Fantasy and Science Fiction, Introduction to Finance, Listening to World Music, Machine Learning, Cryptography, Gamification,

Introduction to Sustainability, Modern & Contemporary American Poetry, and many more. Students learn through videos, quizzes, readings, and various activities. Some courses also include free e-textbooks. Many courses offer a certificate signed by the instructor or a certificate from the sponsoring university upon successful completion of a course.

[Udacity](#) also was started in 2012 by a former professor at Stanford University, Sebastian Thrun, along with Mike Sokolsky and David Stavens. Udacity is a privately owned company with financial backing from prominent investors, including Andreessen Horowitz, and partnerships with a bunch of technology companies in Silicon Valley. Early in 2013 Udacity announced it was offering some courses for credit in partnership with San Jose State University. For most of its courses, though, no college credit is possible, though Udacity does offer certificates of completion. Udacity is a unique collection of MOOCs, mostly related to computers and robotics. The company was originally founded by roboticists teaching "Introduction to Artificial Intelligence," – a course which soon grew to epic proportions. Now students can choose from nearly a dozen courses including Intro to Computer Science: Building a Search Engine, Web Application Engineering: How to Build a Blog, Programming Languages: Building a Web Browser, and Applied Cryptography: Science of Secrets. Courses are taught on a 7-week "heximester" schedule, with a one week break in between. Course units consist of short videos, quizzes, and assignments. Learners are encouraged to progress by solving problems and completing projects. Students completing courses receive a signed certificate of completion. Those who excel can certify their skills through affiliated testing centers or even have Udacity give their resume to one of 20 partner companies including Google, Facebook, Bank of America, and other top names.

[edX](#) is a joint venture created by Harvard University and the Massachusetts Institute of Technology with a goal of offering online courses for free to people all over the world. With financial backing from the Bill & Melinda Gates Foundation, edX is creating courses that include the typical online components--video lectures, student-teacher interaction via questions and answers, graded tests and quizzes. Ed X combines the power of top universities including Massachusetts Institute of Technology, Harvard, and University of California Berkeley to create top-notch open classes. Many of the initial offerings focused on science and technology topics, with courses such as Software as a Service, Artificial Intelligence, Circuits and Electronics, Introduction to Computer Science and Programming, and more. Students learn from completing projects, reading textbooks, completing tutorials, participating in online laboratories, watching videos, and more. Courses are staffed by experienced professionals, scientists, and scholars in their respective fields. Learners that prove their competency through edX courses will receive a certificate from HarvardX, MITx, or BerkeleyX.

[Udemy](#) -- Udemy, founded in 2012, uses an interesting model with a more decentralized learning experience. It allows people from all walks of life to become professors online. Udemy invites anyone who has expertise in particular areas to create their own courses online. Some courses are free while others charge modest fees. Udemy offers hundreds of courses created by experts around the world. This website allows anyone to build a course, so quality varies. Some courses are extremely well-done with video lectures, activities, and thriving peer communities. Others offer only one or two avenues of exploration (a few short videos, for example) and can be completed in just an hour or two. Udemy tries to bring in courses from big names, so expect to see courses from the likes of Mark Zuckerberg, Marissa Mayer of Google, top professors, and various authors. Udemy offers MOOCs on just about every subject including SEO Training, The Neuroscience of Reframing and How to Do It, Game Theory, Learn Python the Hard Way, Psychology 101, How to Become a Vegetarian, Classics of American Literature, Play Ukulele Now, and more. Although most of the classes are free, there are some that charge tuition. You'll also want to watch out for classes taught by instructors more interested in self-promotion than they are in teaching.