ACE deems 5 massive open courses worthy of credit

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From the moment the American Council on Education announced in November [1] that its College Credit Recommendation Service would assess the creditworthiness of a set of massive open online courses, there seemed to be little doubt that such approval would be forthcoming. And indeed, Coursera's announcement today [2] that five of its courses have earned credit recommendations from ACE felt just a little bit anticlimactic.

But the decision -- the latest in a series of remarkably fast-unfolding developments around MOOCs in an industry that historically moves at a glacial pace -- nonetheless has significant implications that are likely to reverberate on campuses around the country.

It represents the initial clearing of what could be the widest pathway yet for students enrolled in MOOCs to cash in "certificates" earned from those courses for credits on college campuses. The credit recommendations for the courses could also create headaches for colleges, though, as they will almost certainly speed up the rate at which current college students ask their institutions for credit for free courses they've taken elsewhere.

ACE Credit has long used teams of faculty experts to review educational experiences -- often on-the-job training and experience offered by the military and other government agencies, professional associations, labor unions and companies like Starbucks or McDonald's. It has a network of nearly 2,000 colleges and universities who agree to consider the group's credit recommendations, but decisions on accepting credits are made on a case-by-case basis.

With a nearly $900,000 grant [3] from the Bill & Melinda Gates Foundation, part of its larger $3 million effort to make sense of MOOC mania, ACE said it would run a set of massive open courses through its process to gauge the creditworthiness of those courses in particular and to test the general viability of using MOOCs to "raise degree completion, deepen college curricula and increase learning productivity," as ACE's president, Molly Corbett Broad, said at the time.

In the 11 weeks since then, the credit review service analyzed five courses: "Pre-Calculus" and "Algebra" from the University of California at Irvine; "Introduction to Genetics and Evolution" from Duke University; "Bioelectricity: A Quantitative Approach" from Duke University; and "Calculus: Single Variable" from the University of Pennsylvania.

Teams reviewed the courses, focusing both on the substance of the content and such pedagogical and technical issues as the degree of student-faculty interaction and the security of assessments, said Cathy A. Sandeen, vice president of ACE's Center for Education Attainment and Innovation. And in all five cases, the reviewers found the courses worthy of credit; in four of the five for undergraduate credit, and in the case of the Irvine algebra course, for vocational credit.

Andrew Ng, co-founder of Coursera, said in an interview that the company and the individual courses' designers had made changes both small and large to satisfy the ACE reviewers. "In one class, they suggested we modify the description of the prerequisites," Ng said. "In another, they suggested we change the title of the course, to make it a more accurate description for the students. We made both of these changes."

The most significant changes were not compelled specifically by ACE, but were undoubtedly driven by the general push to make the courses potentially credit-bearing, Ng said: new policies and practices announced last month [4] around student authentication and testing. Under the company's Signature Track option, for which students will pay fees up to $190 for the possibility of earning a certificate, students will undergo a series of "identity verification measures," and then take a proctored online exam after the course ends.

"A lot of our thinking about academic integrity and digital webcam proctoring was arrived at through discussions with ACE," Ng said.

Online proctoring alone is insufficient to ensure the integrity of tests in a MOOC environment in which the content is freely shared and most students are not taking the courses for credit, some experts in online education said; noncredit students taking unproctored exams will have little incentive not to share answers, conceivably with students who are taking the courses for credit.

Ng said that Coursera and its institutional partners had several options for dealing with that conundrum, including offering the digital proctored exam before it is given to the noncredit students.

Another possibility, which Gary Matkin, UC-Irvine's dean of continuing education, distance learning and summer session, said the university was developing for its ACE-approved math courses, would be to give each student a randomized list of 200 questions on, say, linear equations out of a bank of thousands, and to minimize the overlap so that no two students had exams that were too similar.
"We're still working our way through it," Matkin said. "But this can work in math and science, which are the types [ACE-approved] courses we're offering now. In other classes it's more problematic, and you have issues of plagiarism, but we don't have to worry about that right now."

Another set of potentially thorny MOOC-related issues that were dodged in this first round of approvals by ACE relates to peer assessment of student work, which has been a source of both excitement and agitation among observers of the massive online courses. Given the STEM tilt of this batch of five courses, none of them included peer assessment, leaning entirely on objective, often machine-enabled grading, said Sandeen of ACE. "In the future, perhaps we will be asked to review a course from the humanities or social sciences that relies on peer grading, and we'll take those issues up then," she said.

**Courses for Others**

In describing their hopes for the courses, Matkin and Peter Lange, provost at Duke, focused on their institutions' desire to see their faculty members' intellectual reach extended and to help "different institutions, that are in different places in huge ecology of higher education, enrich what they can offer to their students," as Lange put it.

"We're creating educational experiences, courses," he said, and the ACE credit recommendation will allow "Institution X or Y or Z to decide, 'Do you want to give credit for it?' ”

No students at Irvine or Duke or Penn will be able to take any of these courses for credit, though. Matkin said UC-Irvine does not consider its Coursera courses, as currently constructed, to be worthy of its credit because "we do not control learning environment of these students.... There are 250,000 signups in our six courses, with open enrollment so anybody can sign up, and those anybodies can influence negatively the learning environment of students who are serious about taking it."

Lange said Duke offers its students "an entirely different kind of educational experience" than the one it is making available through its massive open courses, involving "substantial interactions between students and the faculty member."

So while Duke professors will probably use some of the content created for the MOOCs in their courses with students -- and while there could eventually be overlap between the MOOCs created for Coursera and the for-credit online courses the university will create in its credit-bearing partnership with 2U, Lange said -- for now, no Duke students (or Irvine or Penn students, for that matter) will have the chance to earn credit for their institutions' ACE-approved courses.

Which is why this development is just one step in what is likely to be a long, and slowly developing, path.