As millions of students have flocked to free “massive open online courses,” or MOOCs, in recent months, higher education experts have focused on two big questions: whether universities will begin to offer credit for such courses, and what might be done to prevent cheating.

On Thursday, the first glimmers of answers began to emerge. Colorado State University’s Global Campus, an independent campus that is part of the Colorado State University system, said it would give three transfer credits to students who complete Introduction to Computer Science: Building a Search Engine, a free course offered by Udacity, and take a proctored test. While the Global Campus is apparently the first American institution to offer credit for a Udacity MOOC, several European universities have already done so.

“Our students have been asking for credit for the courses for a while, and Colorado State has been very excited about online ed, so this was those things coming together,” said David Stavens, Udacity’s co-founder. Almost 200,000 students have enrolled in the class, which is the company’s introductory computer science offering, and its most popular, Mr. Stavens said. “We’re talking with other schools, but we’re not ready to name them yet,” he added.

Also on Thursday, edX, the Harvard-M.I.T. online collaboration, announced that students in its MOOCs would be able to take proctored final exams at Pearson VUE’s brick-and-mortar testing centers around the world, where their identity can be verified.

“This will take online learning to the next level,” said Anant Agarwal, the president of edX. “Students who take our courses will be able to go to a proctoring center and take the test.”

EdX, like others who offer massive open online courses, gives out certificates of mastery to everyone who completes them. But now, the certificate given those who take the system under the existing honor code will be different from the one for those who choose to take proctored exams, for a “modest” fee, not yet announced. Students will be able to take their final exams at any of Pearson VUE’s 450 testing centers in more than 110 countries.
The proctored certificates, Mr. Agarwal said, should be valuable to students who want to prove their skills to potential employers. Initially, he said, proctored tests will be available for only one of the seven courses — he would not say which one — M.I.T., Harvard and Berkeley are offering at edX this fall.

Udacity announced its arrangement with Pearson VUE earlier this year. Only students who take a proctored test at a Pearson VUE center, for a fee of $89, will be eligible for credit at Colorado’s Global Campus. But Bob Whelan, the president of Pearson VUE, said it would be some time before either edX or Udacity exams are ready.

Andrew Ng, a co-founder of Coursera, which offers 123 MOOCs from 16 universities, said his company was exploring different options for verifying students’ identities and work originality. “Pearson is one way to do this, but there may be others,” he said. “We are also thinking about automatic plagiarism detection programs.”