California to Give Web Courses a Big Trial

By TAMAR LEWIN and JOHN MARKOFF

A plan to offer an array of online college classes at a California state university could, if the students are successful, open the door to teaching hundreds of thousands of California students at a lower cost via the Internet.

Udacity, a Silicon Valley start-up that creates online college classes, will announce a deal on Tuesday with San Jose State University for a series of remedial and introductory courses.

Because the courses are intended to involve the classroom instructor, it could also help to blunt professors' unease with the online classes.

The state university’s deal with Udacity is also the first time that professors at a university have collaborated with a provider of a MOOC — massive open online course — to create for-credit courses with students watching videos and taking interactive quizzes, and receiving support from online mentors.

Eventually, such courses could be offered to hundreds of thousands of students in the state.

California Gov. Jerry Brown, who has been pushing state universities to move more aggressively into online education, approached the company to come up with a technological solution for what has become a vexing challenge for the state.

Ellen N. Junn, provost and vice president for academic affairs at the university in San Jose, said the California State University System faces a crisis because more than 50 percent of entering students cannot meet basic requirements.

“They graduate from high school, but they cannot pass our elementary math and English placement tests,” she said.

The Udacity pilot program will include a remedial algebra course, a college-level algebra course and introductory statistics.

For the pilot project starting this month, however, the courses will be limited to 300 students — half from San Jose State University, and half from local community colleges and high schools — who will pay lower than usual tuition. The cost of each three-unit course will be $150, significantly less than regular San Jose State tuition. Sebastian Thrun, one of the founders of Udacity, would not disclose how much the company would be paid for its participation.
San Jose State will receive funds from the National Science Foundation to study the effectiveness of the new online classroom design.

Open online courses exploded in American higher education in 2011 after Mr. Thrun, a nationally known artificial-intelligence researcher at Stanford, and Peter Norvig, Google’s director of research, offered to teach an introductory artificial-intelligence course online. More than 160,000 students initially registered for the class.

After two other Stanford courses each attracted more than 100,000 students, Dr. Thrun started his venture. Two other Stanford computer scientists, Andrew Ng and Daphne Koller, also established a competing private company, Coursera, to develop technologies necessary to change the reach and effectiveness of online education.

The courses have rapidly moved from the periphery to the center of higher education policy as a growing number of schools have begun experimenting with ways to offer the courses for credit toward a degree.

EdX, a university collaboration initiated by the Massachusetts Institute of Technology and Harvard last year, this month will begin offering some of its courses at two Massachusetts community colleges, in a blended format.

Recently edX completed a pilot offering of its difficult circuits and electronics course at San Jose State to stunning results: while 40 percent of the students in the traditional version of the class got a grade of C or lower, only 9 percent in the blended edX class got such a low grade.

Last fall, for the first time, Udacity’s courses were tried on a small group of struggling high school students, at the Winfree Academy Charter School system, a cluster of schools near Dallas-Fort Worth created to help struggling students and reclaim dropouts.

“I was a little scared to put our kids, who are struggling and at risk of dropping out, into a class written by a Stanford professor,” said Melody Chalkley, Winfree’s founder. “But of the 23 students who used Udacity, one withdrew from the school, and the other 22 all finished successfully. And two young women got through the whole physics course in just two weeks.”

Until now such courses have been seen as a threat to professors’ jobs. The San Jose chapter of the California Faculty Association has not yet taken any formal position on the Udacity pilot. Many members were not aware of it, and some of those who did know of the plan said they had learned of it only informally.

“My personal opinion is that it’s not by accident that this is being announced at a time when most faculty are not on campus, but I have no evidence for that,” said Preston Rudy, a sociology professor at San Jose State who serves as vice president of the chapter. “I don’t know enough about
Udacity to take any position, but over all, I know the university is concerned about who will teach courses if they go online, who has control, and whether they will be university employees.”

The Udacity deal could blunt some faculty opposition, because the effort will continue to involve professors — but it will also use online course assistants, or “mentors,” hired and trained by Udacity.

The program is an attempt to overcome the biggest failure of open online courses today — their 90 percent dropout rate.

Despite high enrollments, about half the students who sign up for such courses, whether at Udacity or other providers, fall away at the beginning, never even looking at the first assignment. Many of them are browsers without real commitment to the classes. But others, Mr. Thrun said, just need more support.

“I am personally troubled by the 90 percent dropout rate,” Mr. Thrun said. “The students signing up are highly motivated — and MOOCs will only succeed if they make normally motivated students successful.”

In the San Jose pilot, Udacity will have staff mentors monitoring the courses and offering a range of student support services that could include regular check-ins with a mentor, or automated e-mails providing encouragement and help for students stuck on a problem.

Dr. Thrun said that the new approach being pursued by Udacity came in response to a phone call from Mr. Brown. “For me this started cold turkey with a call from the California governor who said, ‘Hey Sebastian, we have a crisis in the state.’ ”

A San Jose State professor who was one of the designers of the new statistics course said that he was hopeful that the new approach would have an impact.

“One of the challenges of these massive courses as an instructor is how do you maintain contact with your students. It’s just impossible,” said Ronald F. Rogers, chairman of the psychology department at San Jose State.

He said the new course model that Udacity has designed would be a significant test of a new approach to online education and a refinement of the open course idea: “It’s an empirical question. I think in some ways it is a test tube and we’re going to see if it can scale.”

This article has been revised to reflect the following correction:

Correction: January 15, 2013

An earlier version of this article misstated the name of a California university faculty group. It is the California Faculty Association, not the California Teachers Association. The article also misstated the
nature of the courses that San Jose State University will offer with Udacity. The courses will involve students watching videos and taking interactive quizzes; they will not be blended courses with students first watching videos on their own, and then coming to class to work on assignments with a professor.