

How Georgia Tech's Online Computer Science Master's Degree is Broadening Access to Non-traditional Students

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Audra Brown is a full-time instructional technologist at Clovis Community College in New Mexico who finds time to write a weekly humor column, run Longhorn and Black Angus cattle, and maintain her Taekwondo black belt. Thanks to the Georgia Institute of Technology's groundbreaking Online Master of Science in Computer Science (OMS CS) program, she's also more than halfway through a journey that will, hopefully, end with her earning a degree that otherwise might have been out of reach.

Audra's demanding schedule is unique to her, but her challenges are typical of many who seek to weave post-graduate education and professional development into their busy lives. For many years, Georgia Tech has been a leader in offering high-quality distance-learning programs geared to help those like her whose circumstances make a traditional, on-campus experience problematic.

We live in an amazing time. Without ever setting foot in the United States, someone on the other side of the world can access a course devised and taught by a world-class Georgia Tech faculty member in Atlanta. Judging by the success we've had with such offerings as our OMS CS degree and our MOOCs (massive open online courses), we know there's a tremendous appetite around the globe to tap into the vast reservoir of knowledge and information that is so readily available. People who take advantage of these opportunities are highly self-motivated, so there are great opportunities for higher education to partner with them.

Georgia Tech's newest endeavor to reach such learners will come in August 2017, when it will formerly launch an Online Master of Science degree in Analytics (OMS Analytics). For less than \$10,000, students from all over the world will be able to earn a top 10-ranked degree from a top 10-ranked institution with a cost that is one-quarter of on-campus degree programs. The courses will be delivered through edX, an online-learning destination and MOOC provider that offers high-quality courses from some of the world's best universities and institutions to learners worldwide.

This new degree will build upon the success of our OMS CS degree, which was pioneered by Georgia Tech as the first program of its kind. At a cost of about \$7,000, the OMS CS continues to be a tremendous bargain compared to the cost of earning a similar degree via on-campus classes. Three years after its launch, the program's enrollment has grown from 380 in its first cohort to more than 4,500 students today, with 277 students graduated thus far and approximately 300 scheduled for graduation in May 2017.

Georgia Tech public policy expert Julia Melkers collaborated with Harvard Kennedy School educational economists Joshua Goodman and Amanda Pallais on a working paper that produced some interesting observations about our OMS CS degree program:

Without the online option, the OMS CS students probably would have had no other way to obtain the degree.

The OMS CS degree is reaching a new population of students. While the typical MSCS applicant is 24 years old, international, and applying at the beginning of his/her career, the

typical OMS CS applicant is a 34-year-old American in mid-career.

Researchers estimated that 7 percent more Americans each year will earn a master's degree in computer science as a result of Georgia Tech's program, a significant expansion in a rapidly growing field.

Our new OMS Analytics degree will continue Georgia Tech's tradition of providing cost-effective options for nontraditional learners. Our Summer Online Undergraduate Program allows students to continue advancing toward their degrees while away from campus during summer semester. Our High School Math Program offers advanced mathematics students in Georgia high schools the opportunity to take online courses via live video or internet feed. More than 643,000 learners worldwide are enrolled in our 28 massive open online courses (MOOCs) in STEM- and special-interest subject areas; almost 1.6 million have enrolled since the program's 2013 launch. And three professional master's degrees — Manufacturing Leadership, Applied Systems Engineering, Sustainable Electrical Energy — are delivered in hybrid format combining online learning with on-campus visits.

Georgia Tech's efforts directly address national priorities and needs: STEM education and workforce training, as well as higher education's rising costs. In 2016, Georgia Tech Professional Education reached more than 18,600 learners with professional development courses and programs and delivered online graduate and undergraduate courses or programs to almost 5,400 learners from 130 countries and more than 2,700 companies.

Knowledge is not just growing today, but is accelerating and being disseminated at an unprecedented rate. Georgia Tech is committed to adapting to this reality by proactively developing new learning and delivery methods in order to provide the highest-quality education possible. We will continue to explore creative options to connect motivated learners with the programs they need to reach their goals.