At OSU, analytics links business graduates with fulfilling careers in industry

A unique business analytics master’s program takes a cue from industry partners to teach students about the real-world applications of data science

In America’s heartland at Oklahoma State University, a unique graduate program at the intersection of marketing and data science has trained more than 900 students for the growing field of business analytics. Created by Goutam Chakraborty (or Dr. C as he is known to his students), SAS Professor of Marketing Analytics at OSU’s Spear School of Business and Director of the program, this interdisciplinary degree has enabled students from an array of backgrounds to build on their established industry skills with in-depth statistical training and applied business principles. What started as a Data Mining Certificate is now a fully accredited Master of Science in Business Analytics (MSBAN) with three additional certificates jointly awarded by OSU and SAS.

Growing up in a refugee colony in India, Dr. C came a long way to arrive at his current role. Though he initially trained as an engineer, Chakraborty sought a new challenge, upon completing his executive MBA and moving to the United States. It was a twist of fate, he says, that brought him to his current path in academia. “I applied to 10 schools for an MBA and by accident, the University of Iowa sent me a PhD form ... so I filled it in.” Once he completed his PhD in marketing and simultaneously an MS in applied statistics, Dr. C joined OSU and has been there ever since.

Preparing students for the job market

Chakraborty soon recognized a need in the marketplace for graduates with a more focused, yet business-friendly, set of skills. “At that point in time, there was no such thing as an analytics program, and SAS was just starting to really push the frontier on data mining,” he says. “So I created the Data Mining Certificate in partnership with SAS. The idea was that while we have programs in statistics and information science, the students don’t have any focus. My goal was to give them a set of electives that trained them in data mining applications.” After a few years working to develop such a program, he finally began enrolling MSBAN students at the end of 2014.

“The students are happy because they get jobs,” Chakraborty explains. In the MSBAN program, all students receive paid summer internships and job placement rates post-graduation are high; over 90 percent within three months from graduation in 2017, for example. Given the interplay between analytics and marketing in these certificate and degree programs, students are highly focused on entering the business world after graduation, instead of pursuing an academic or research track. And as a professor with extensive experience in industry, he understands both what employers are looking for in job candidates and what students will need to learn to have the highest chance of success in industry careers. “I’m producing professionals. The job is always in the forefront of our students’ minds.”

JMP® skills help students ‘hit the ground running’ in industry careers

Dr. C enthusiastically uses JMP with all his students when they first start the MSBAN program. “The reason is very simple: It’s the easiest program to use.” Moreover, he says, “JMP is already in the industry, so if I produce students who already have JMP skills [by the time they begin
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Goutam Chakraborty, SAS Professor of Marketing Analytics

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With students from a diverse array of backgrounds, Chakraborty can’t count on students all having foundational programming or statistical knowledge. Because students can pick it up with minimal training, JMP lets professors focus on engaging the students in learning the program material. “They’re in heavy courses from the first week of the semester onwards. If I throw a lot of hard programming stuff at them in the beginning, I won’t be able to get them excited and interested. So JMP is where we start. It’s a great way for us to start teaching students the application of analytic statistics, visualization, exploration.”

JMP is especially useful in the classroom setting, as it is dynamic enough to facilitate interactive problem-solving. “I don’t lecture in class. Rather, the classroom is for discussion, interaction and exploring, so we’ll pull up JMP. We can do it on the fly,” he says. “Can I do it on the fly with other programs? Yes, but it will take me more time, and even if I can do it, the students are not ready [to use software with a higher learning curve] at the beginning.”

Internships are another crucial piece of OSU’s graduate program. Explains Dr. C: “I want to [foster graduates] who can solve business problems using whatever data technology process tools are available. I want [my students] to sit at the table with you and be able to explain the model he or she has built.” And with the simple interface and dynamic visualization tools that JMP offers, Chakraborty says students can focus more on developing their understanding of underlying principles instead of wasting time and energy trying to figure out how to use a more complex program.

Staying current in a rapidly changing field

With the ever-changing landscapes of both the marketing world and data analytics, the curriculum must also evolve to ensure that the skills taught remain current; they must meet the tangible needs of various industries. And conferences like Discovery Summit and SAS Global Forum, he says, provide an excellent opportunity to foster fruitful industry partnerships: “At conferences, I hear from companies what they’re looking for [in job candidates]. The second advantage is, I’ve been around for a long time.” Having been a pioneer in the intersection of marketing and data science as it pertains to the business world, Chakraborty is well known by a wide cross-section of business leaders, and he uses these relationships to keep abreast of developing needs and trends.

Furthermore, he has an advisory board informing his program, including director-level representatives from big players like Walmart, FedEx and Comcast. “They go through the curriculum and then they tell me, ‘Maybe you need [to add more] training in this area,’” he explains. “There is my advantage. I bring in training on things that most universities can’t think of.”

Dr. C’s real-world approach to developing and growing business programs is gaining increasing traction as educators come to see the importance of bridging industry and academia. With more graduates entering the workforce in fulfilling industry careers right out of college, Chakraborty says you need look no further than the data. And, he says, OSU’s MSBAN graduates “are as good as any data scientist you will find.”

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Solution

Use JMP® in the classroom to introduce students to statistical principles while also familiarizing them with a tool used widely by industry partners.

Results

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