UC SANTA BARBARA

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No Risk, No Reward

While actuarial scientists — the number crunchers who use complex mathematical models to estimate risk — traditionally have been vital to the insurance industry, companies like Google and Uber are now hiring them to help assess opportunities for growth.

And as it turns out, some of the best actuaries in the country are coming out of UC Santa Barbara, where the actuarial science program is the first on the West Coast to be designated a Center of Actuarial Excellence (CAE).

Raya Feldman, the UCSB program's director of undergraduate studies, credits its success to a commitment to fine-tuning curriculum. "We are always changing and adapting to meet the industry standards," she said. "The standards of this profession are defined by two major societies — the Society of Actuaries and the Casualty Actuary Society — and they constantly change their requirements, which means we have to adapt."

In recognition of its academic excellence, the actuarial science program is the recipient of two industry grants — a CAE education grant to support project-based research training in actuarial science, and the 2016 Casualty Actuary Society (CAS) University Award. The latter was just introduced this year, and UCSB is one of only four schools to receive it.

Another program endorsement came from San Diego-based Wawanesa Insurance, which provided $40,000 to establish the Wawanesa Scholarship in Actuarial and

Financial Mathematics and Statistics. The gift will support deserving undergraduates in their junior or senior years.

According to Feldman, a key factor in the UCSB program's success is its interdisciplinary nature, which, she added, is entirely by design. Students take required courses in math, computer science and economics, in addition to those in actuarial science and statistics. Officially founded in 2010 when a faculty advisory committee recognized the need for a dedicated actuarial science major, the program has since grown from 30 students to nearly 300.

Feldman credits the strength of the program for its rapid growth — that and the promise of a job. Most of her students receive multiple job offers even before they have completed their degrees, she noted, adding that it is common for undergraduates to participate in internships or research projects while matriculating.

"Many actuarial programs sit in math departments, in order to attract math students or to give them a job when they graduate," Feldman said. "Our department is different. We have faculty who do research in financial mathematics and in actuarial science, so we have our students doing research at all levels."

Said Wawanesa marketing director Leo Morales, "UCSB is known for its quality students. After speaking with Raya Feldman and discovering how passionate she was about the students and university, I was convinced it was the right choice for our scholarship."

Funding from the scholarship as well as from the CAE education grant and the CAS University Award is used primarily to support student travel to academic conferences (undergraduates involved in research are often invited to attend doctoral conferences), and to reimburse them for the cost of the required certification exams. The exams, five in total, are crucial for accreditation.

"Our actuarial science program is young, but very successful," said Pierre Wiltzius, executive dean of UCSB's College of Letters & Science. "We know our students are exceptionally well educated and desirable to employers, as shown by the accolades the program has received for its innovative approach."

Innovative, but also extremely rigorous, Feldman noted, adding that the program demands discipline and additional preparation for long multiple-choice tests.

But huge rewards await the students who complete the program. “Those who graduate and get jobs are typically happy,” said Feldman. “We see it because half of the recruiters that come to our job fair are alumni. We have lots of students who keep in touch, and some past students even send their kids to study in our program, which I think says something about UCSB.”

About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.