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Baruch College campus in New York. *Photographer: Victor J. Blue/Bloomberg*

## **School of Quant: At \$29,000, a Public NYC College Outclasses Princeton**

New York College Beats MIT in Churning Out Quants for \$29,000

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By Heather Perlberg

(Bloomberg) -- Princeton has its Gothic spires, MIT its Great Dome. But for a no-frills lesson in 21st-century finance, head to a lackluster high-rise on Manhattan's East 25th Street - AKA, Bernard Baruch Way.

Nine flights up, along scuffed linoleum hallways, a handful of math-loving graduate students consider equations that would make most people's heads hurt. On the syllabus recently: three-dimensional volatility surface structures for options pricing models.

If you have to ask what those are, you probably don't belong at the elite financial engineering program at Baruch College, part of New York City's sprawling, 275,000-student public university system.

Call it Quant U.

Baruch, it turns out, has built a pipeline to Wall Street that rivals those at many richer, more prestigious institutions. Its faculty includes pros from the likes of Goldman Sachs Group Inc. and JPMorgan Chase & Co. Its students routinely graduate into six-figure jobs at big banks or, more likely, head to hedge funds such as Citadel and Millennium Management.



Students during a class in the Financial Engineering Masters Program. *Photographer: Victor J. Blue/Bloomberg*

Similar top-rated programs at Princeton, MIT, Cornell and Carnegie Mellon? They're good, yes - but Baruch bests them all, according to annual surveys by QuantNet, an online forum for financial engineers.

The century-old college, named after the American financier and statesman, lacks the trappings of the nation's prestige mills. No quad. No ivy. No Division I athletics. Its single dorm is 72 blocks uptown.

What Baruch does have, however, is a value proposition. At a time when US higher education is confronting a host of existential challenges - from dwindling enrollment to soaring costs, to questions about the real-world value of a degree, including many expensive graduate ones - Baruch's master's in financial engineering offers quasi-vocational training that can pay off fast.

Here are the hard numbers: An 18-month Baruch MFE costs a New York City resident about \$29,000. A similar degree from MIT costs four times that - and starting salaries for those grads are about a fifth lower. On average, fresh Baruch MFEs can expect almost \$170,000, before bonus, according to QuantNet. (Baruch puts that figure closer to \$220,000.)



Dan Stefanica talks with students on Dec. 8. *Photographer: Victor J. Blue/Bloomberg*

Wall Street can use the help. While parts of the industry are slashing jobs, a long war for talent has taken a toll. More and more young math- and computer-types - the sort of people who drive trading - are opting out of finance. For many, the money can't make up for the unglamorous grind.

So, in these unsettled times in higher ed, Baruch offers a bracing tonic for America's ivy-clad ivory towers.

“There’s a blue-collar attitude that permeates throughout the program,” says Dan Stefanica, the mathematics PhD and former MIT professor who’s widely regarded as the program’s driving force. Like many celebrated business schools, Baruch’s financial engineering course is as much about building career-long networks as it is about acquiring specific skills, he says.

It’s also extremely hard to get into. The acceptance rate for the ’23 crop of 25 students is roughly 8% - similar to the one for a traditional two-year MBA at Wharton. These days, more and more Baruch MFEs are coming from overseas. Ten years ago, most Baruch students studying to be financial engineers were American, many from New York. Now, the majority are from China, with some coming in from countries including Switzerland and Russia, Stefanica says.



Students leave the Baruch College campus in New York. *Photographer: Victor J. Blue/Bloomberg*

Baruch tends to screen candidates even more aggressively than most. Applicants go through several rounds of interviews, as well as the school’s own assessment of their quantitative skills. Many turn down fancier offers elsewhere.

Bridging the prestige gap can be a challenge. Yurun Song, 23, was trading options in Shanghai when she stumbled on Baruch.

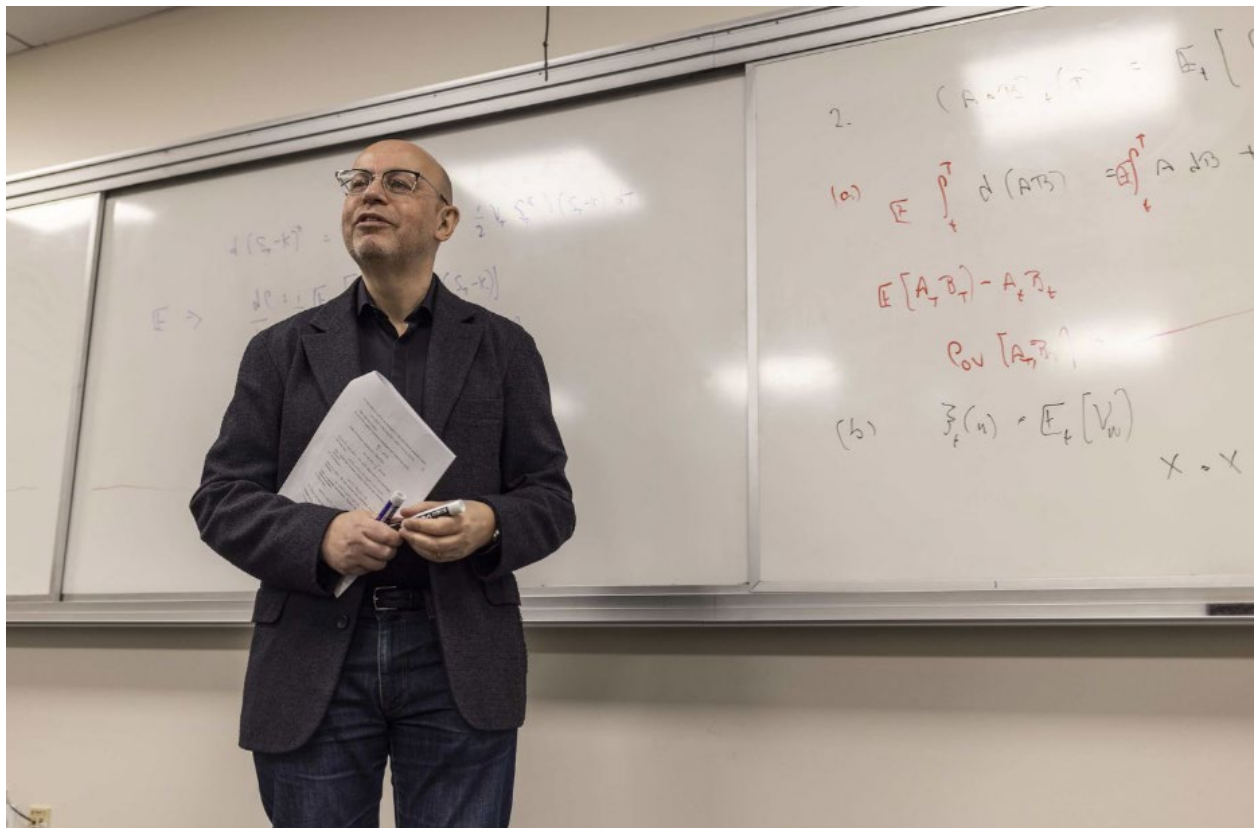
Her parents’ response: Baruch? They’d never heard of the place - unlike MIT and Columbia, where Song had also been accepted.

“My parents were worried,” she says with daughterly understatement.

This year, Song won the Rotman International Trading Competition, a global quant-fest in Toronto. She's already lined up a hedge-fund job.

Yu Gan, Baruch MFE '14, says he could've gone to more famous places too. He picked Baruch because of Stefanica's reputation for nurturing quant careers. He used his Baruch contacts to land a job at Morgan Stanley and then hedge fund Seven Eight Capital. He's running his own hedge fund now and has hired eight of his former classmates.

"The biggest resource is the community," Gan says of the school.



Jim Gatheral, mathematics professor and 2021 Quant of the Year, teaches a class in the Financial Engineering Masters Program. *Photographer: Victor J. Blue*

With its ties on Wall Street, Baruch tries to tailor its program to industry demands — about 70% of the students end up going to work for hedge funds. The school was early to introduce courses on big data, machine learning and commodities trading, according to Alejandro Canete, MFE '19, and member of the Baruch board.

"Baruch has been at forefront of curriculum innovation," says Canete, who spent seven years at Millennium, founded by hedge-fund mogul Israel "Izzy" Englander, and is now the chief data officer at Chicago Trading Company. "The leadership can move fast and is tight with people in the industry."

Another destination for Baruch quants: Virtu Financial Inc., the big high-frequency trading firm. Virtu recently hired two, according to Tyler Drake, head of non-customer market making there.

Virtu interviews a lot of people, Drake says, but Baruch stands out. “We turn down people with high GPAs from Stanford, Harvard, MIT,” he says. “Baruch’s program is so selective, they do a lot of the filtering for us.”

Granted, not everyone is going to find success and fulfillment in the art of algorithmic trading and hedging derivatives. But with the cost/benefit of higher ed under scrutiny, the Baruch equation adds up for its would-be Wall Streeters.

“We have the highest compensation and lowest tuition among the top 10 programs,” Stefanica says. Case in point: One of his students, he says, just landed a job at a major hedge fund for \$500,000-plus a year.