

Degree Proposal
Bachelor of Science in Quantitative Finance
D'Amore-McKim School of Business

Executive Summary

The Bachelor of Science in Quantitative Finance is a strategically designed interdisciplinary program that addresses the rapidly growing demand for professionals who can apply advanced mathematical modeling, computational programming, and data science techniques to solve complex financial challenges. Launching Fall 2026, this 128-credit program prepares students for careers in fintech, risk management, quantitative portfolio management, algorithmic trading, machine learning applications in finance, and financial modeling.

Curriculum

The BS Quantitative Finance provides deeper and more integrated preparation than current offerings:

Compared to BS Business Administration (Finance/Fintech Concentration):

- Adds 24 credits of advanced mathematics (through differential equations, probability, stochastic processes)
- Incorporates 18 credits of computer science and data science (programming fundamentals through machine learning)
- Provides rigorous quantitative foundation for technical finance roles

Compared to Combined Majors (Math-Business or CS-Business):

- Purpose-built curriculum specifically designed for quantitative finance careers with specialized finance courses (e.g., Discrete-Time Quantitative Finance, Financial Risk Management, Computational Methods in Finance)
- Streamlined pathway eliminating redundancy and ensuring optimal course Sequencing
- Clear identity and cohort experience for students pursuing this specialized field

Resources

The program demonstrates fiscal responsibility and operational efficiency:

- **Low to No Start-Up Budget Required:** Leverages existing courses across three colleges and only adds two new courses in Finance
- **No New Faculty Hires:** Utilizes current tenure-track and full-time faculty expertise in finance, mathematics, and computer science
- **Existing Infrastructure:** Uses established classrooms, computer labs, trading simulation facilities, software, and library resources (e.g., Bloomberg)

- **Marketing Through Standard Channels:** Promotion integrated into existing Enrollment Management, DMSB communications, and admissions events
- **Net New Revenue Potential:** Expected to attract net new students who would otherwise attend competitors, generating incremental tuition revenue

Contribution to Northeastern's Academic Plan

The BS Quantitative Finance program embodies the core principles of Northeastern's Beyond 2025 Academic Plan:

- **Experiential Learning baked in its DNA:** Integrates co-op experiences, industry projects, and real-world problem-solving from day one, fulfilling the Academic Plan's vision that students are "experiential learners from orientation to commencement."
- **Interdisciplinary Excellence:** Breaks down traditional boundaries by seamlessly integrating expertise from D'Amore-McKim School of Business, Khoury College of Computer Sciences, and College of Science.
- **Impact-Focused Education:** Addresses grand challenges in financial markets including risk management, algorithmic trading, and fintech innovation, consistent with the university's commitment to "maximizing positive impact in the world."
- **Humanics Integration:** Fuses data science and technology expertise with deep understanding of financial markets, ethical considerations, and human factors.

Recommendation

The BS Quantitative Finance program represents a strategic opportunity to meet documented market demand while leveraging Northeastern's distinctive strengths in experiential learning and interdisciplinary collaboration. With little to no start-up costs, strong net new revenue potential, and alignment with the university's strategic mission, this program positions Northeastern as the premier destination for students seeking careers at the intersection of finance, technology, and computer science. D'Amore-McKim, in partnership with the College of Science and Khoury, is prepared to launch this program in Fall 2026 and respectfully requests approval to proceed