

DEPARTMENT OF
APPLIED MATHEMATICS

CFRM

Computational Finance
& Risk Management



DEGREE & CERTIFICATE PROGRAMS

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UNIVERSITY of WASHINGTON

Computational finance and risk management encompasses advanced mathematics, probability, statistics, modeling, and programming to meet the complex needs of the financial marketplace.

GRADUATE PROGRAM OPTIONS

- Master of Science in CFRM
- Computational Finance Certificate

Master of Science, Computational Finance and Risk Management (CFRM)

Provides an innovative, adaptive education for careers in financial engineering, trading, price modeling, data analytics, risk management, and other industries which use these skills. Dedicated staff provide career opportunities and academic support. Students benefit from the academic backgrounds, career experience, and cultures of a diverse student body. ■ *Minimum 42 Credits*

- On-Campus, Full-Time
- Online, Full-Time Or Part-Time

Computational Finance Certificate

Rigorous, graduate-level courses in financial modeling, portfolio optimization, financial data science and quantitative risk. ■ *3 Courses | 12 Credits | 9 Months*

- Online, Part-Time



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GRADUATE PROGRAM PREREQUISITES

Applicants to graduate-level programs should demonstrate exceptional command of:

- Calculus through partial differentiation, matrix algebra, and one-dimensional optimization
- Probability and statistics at least at an advanced undergraduate level
- A programming language such as Python, R, MATLAB, Java, or C++

Industry Relations

Computational Finance and Risk Management benefits from the expertise of industry-leading professionals on our Advisory Board, and as affiliate instructors who bring their extensive knowledge to the classroom. Faculty and staff work with companies and firms to bring career opportunities to students, and the CFRM Quantitative Analytics Lab (QAL) facilitates research collaboration and strategic partnership between CFRM and industry.



UNDERGRADUATE PROGRAM OPTIONS

- **Bachelor of Science in CFRM**
- **Minor in Computational Finance**

Provides an applied mathematical foundation and solid understanding of how mathematical models, as well as statistical and computational methods, are used in financial applications.

Students will take coursework in financial software development, financial modeling, machine learning, and data science to help prepare for dynamic careers in a variety of fields, or further academic study.

For the complete graduate and undergraduate course list, scan this code.

