
INVESTMENT AND RISK MANAGEMENT SKILLS FOR A WORLD WHERE THE MONEY ISN'T THEORETICAL.
MScFinance
MASTER OF SCIENCE IN FINANCE
SEGAL GRADUATE SCHOOL
SFU
BEEDIE SCHOOL OF BUSINESS
SIMON FRASER UNIVERSITY

WHY WE'RE HERE

Financial markets throughout the world are being transformed in the wake of the financial crisis. Not surprisingly, there is a renewed focus on enhanced risk and investment management tools and practices.

While it is clear that many of the quantitative aspects of investment and risk management can be refined, fundamental change will also be necessary. Not only will proper tools and methods need to be better integrated into a corporation's overall strategy, but the systemic risk associated with highly interconnected financial markets must also be reconsidered.

DUAL ACCREDITATION

We are one of very few business schools to be accredited by both AACSB and EQUIS. This is a reflection of our excellent instruction, rigorous research and strong connections with industry. Fewer than 5% of business schools share this honour.

CANDIDATE PROFILE:

Numerate, critical thinkers seeking to develop technical and analytical skills. Excellent written and oral communication skills.

UNDERGRADUATE DEGREE:

Quantitative discipline: mathematics, sciences, engineering, economics or business

AVERAGE GMAT:

620

WORK EXPERIENCE:

Experience in the financial services sector is a valuable asset

SHAPING A NEW KIND OF RISK MANAGER

The Master of Science in Finance program at the Segal Graduate School equips students with the tools needed to manage investments and risk in a rapidly changing world.

Designed to meet the increasing global demand for skilled risk management and investment management professionals, the program provides a unique blend of rigorous training and real-world experience.

Visiting finance professionals contribute an invaluable practical component to the program. Students also have an unparalleled opportunity to gain hands-on experience by managing an investment portfolio with a market value in excess of $10 million.

If you have a facility for quantitative modelling and seek a career in financial risk management or investment management, this program is the ideal platform from which to jumpstart your future.

LEARN IT. DO IT.

The M.Sc. Finance is an intensive 12-month, full-time program delivered over 3 terms. Elective courses allow candidates to specialize in either risk management or investment management.

The first term is dedicated to developing sound foundations in mathematical and computational methods, foundations of financial theory and an introduction to the management of the investment fund.

The second and third terms introduce students to advanced theories of capital markets and derivative securities, fixed income analysis, financial econometrics, law and regulation of financial institutions, investment management, enterprise risk management and market and credit risk management.

THE SIAS FUND: MANAGE A REAL PORTFOLIO

Our Student Investment Advisory Service (or SIAS, for short) is a $10 million fund that is entirely directed by students. It is the largest fund of its kind in Canada.

Students have a unique opportunity to acquire real world investment, risk management and compliance experience managing the endowment portfolio, funded by generous contributions from the Lohn Foundation and HSBC Bank Canada. Senior representatives from the financial sector mentor students in their SIAS activities.

"Not many other students in the world can say they have managed a $10M fund. That's your advantage in the interview room, when you're competing against a sea of well qualified candidates."

Ashkan Ziabakhshdeylami, M.Sc. Finance '11

"The ability to manage $10M of the school's endowment is an unprecedented opportunity that can't be matched. It allowed us to be entrepreneurial, taught us to quickly learn and adapt to reach our goals, nurtured our ability to work as a team, prepared us to present our performance to the client and industry professionals and gave us invaluable hands-on experience in running a fund."

Lauren Looi, M.Sc. Finance '11

MEET INDUSTRY LEADERS

As part of our program, we host guest speakers from financial institutions around the world. We also encourage visitors to work with promising candidates on research projects. Successful research cooperation often leads to an offer of employment. Speakers have included individuals from such diverse organizations as:

Alliance Bernstein, New York
Bank of America / Merrill Lynch, New York
Bank of Montreal Financial Group, Toronto
Deutsche Bank, New York
FINCAD, Vancouver
KPMG, Vancouver
QuIC, Vancouver
Royal Bank of Scotland Securities, Greenwich
SGS Asset Management, Toronto
Standard Chartered Bank, Singapore
Swiss Re, New York
ZE PowerGroup Inc, Vancouver

NETWORK THROUGH BUSINESS CASE COMPETITIONS

Each year our students participate in various competitions where they get to apply and demonstrate what they've learned in the classroom. These competitions include the National Investment Banking Competition, a pressure-packed 5 hour challenge creating a buy-side M&A presentation and pitching it to a panel of judges and 300 delegates.

Another competition students can compete in is the CFA Global Investment Research Challenge, where students create a detailed research report for a company and defend their investment thesis to a panel of judges.

THE COURSES YOU'LL TAKE.

The following is a brief overview of our curriculum.

REVIEW COURSES

- Mathematics for Finance
- Probability and Statistics
- Elements of Economic Theory
- Technical Writing

SEMESTER I - FALL

Financial Economics I - Introduction to the theory of finance.

Financial Modelling Tools - Introduction to the mathematics and computational techniques essential for financial modelling and risk management.

Equity Security Analysis and Portfolio Management I - Practical aspects of portfolio management, trading, compliance, attribution and risk management. Principles of fixed income valuation and equity analysis.

Derivative Securities I - Introduction to the valuation of derivative securities. The use of derivatives in portfolio management, risk management and financial engineering.

Choose one of the following:

Accounting for Financial Instruments - Introduction to relevant accounting concepts including accounting for derivatives, hedge accounting and accounting for securitization.

or:

Equity Security Analysis and Portfolio Management II - Advanced valuation of equity securities.

SEMESTER II - SPRING

Financial Economics II - Advanced asset pricing and capital market equilibrium theory.

Derivative Securities II - An advanced treatment of contingent claims pricing theory.

Financial Econometrics - Introduction to econometric models employed in risk management.

Numerical Methods in Risk Management - A survey of numerical methods employed in contingent claims pricing and risk management.

Fixed Income Security Analysis - Valuation and risk management of fixed income securities.

SEMESTER III - SUMMER

Research Project - Students complete a supervised research project in the areas of risk management, asset management or a closely related field of inquiry.

Market Risk Management - A review of advanced market risk models and methodologies including value-at-risk, shortfall and stress testing.

Credit Risk Management - Introduction to the modelling, pricing and management of credit risk.

Law and Regulation of Financial Institutions - Review of securities law in Canada, US and the EU. Economic analysis of regulation.

Choose one of the following:

Enterprise Risk Management for Financial Institutions - A survey of best practices within financial institutions with respect to enterprise risk management, including risk architecture and risk communication and disclosure.

or:

Strategic Asset Allocation - This course focuses on the theoretical and practical issues of strategic and tactical asset allocation. Students will determine the implications of unique investor characteristics on optimal portfolio composition using the Goldman Sachs model.

"I walked in the door knowing a bunch of terms and definitions and how to calculate a bunch of formulas. A year later I walked out knowing how to measure risk, how to make sound investment decisions, and how to manage a portfolio of financial instruments. I went from pure theory to real world application."

Alex Melnikov, Program Alumnus '10, Analyst, Commercial Banking

"This program really gave me access to a wonderful and talented group of people. It opened up my eyes to the many opportunities in Finance and we were given the freedom for unrestricted growth. Each opportunity (the competitions, SIAS, classes and NY) culminated in getting me a job at a top Canadian Financial institution."

Lauren Looi, M.Sc. Finance '11, Trader

"The level of material that we had to cover in each semester was challenging. However, we got to apply the gained knowledge in practice while managing our fund. I was proud to be a contributing member of a team that manages a $10M fund. The reality of it was that the more involved I was, the more I learned. Therefore, I tried to be as involved as possible."

Ashkan Ziabakhshdeylami, M.Sc. Finance '11, Market Analyst

FACULTY

Avi Bick, PhD (Berkeley), Associate Professor, Finance

Professor Bick's areas of specialization include the valuation of options and futures contracts, models of financial market equilibrium and mathematical finance. His research has been published in leading academic journals in finance, management science and mathematics. He teaches Derivative Securities II.

Phil Goddard, PhD (Cambridge), Practitioner, Financial Modelling

Dr. Goddard develops advanced numerical analysis and simulation software. He advises clients on techniques for optimizing their critical decision making software. He teaches Financial Modelling Tools and Numerical Methods in Risk Management.

Darren Downs, CA, BCom (UBC), Practitioner, Accounting

Mr. Downs is a senior manager at Deloitte, Canada. He is an expert in the reporting and accounting for derivatives, complex debt instruments and foreign currency translation. Mr. Downs teaches Accounting for Financial Instruments.

Robert Grauer, PhD (Berkeley), Endowed University Professor, Finance

Professor Grauer's research interests include asset allocation, portfolio selection, asset pricing, performance measurement, and efficient markets. His publications have appeared in leading academic and practitioner journals in finance, economics, and management science. He teaches Financial Economics II.

Mikhail Illiev, JD (NYU), Practitioner, Law

Mr. Illiev is a corporate attorney in New York City. He specializes in securities laws, derivatives and secured finance. He held the positions of Senior Vice President at KBC Financial Products (New York) and associate attorney at Dewey & LeBoeuf LLP (New York). Mr. Illiev teaches Law and Regulation of Financial Institutions.

Peter Klein, PhD (Toronto), Professor, Finance

Prior to joining the Beedie School of Business, Professor Klein held senior positions at CIBC/Wood Gundy Financial Products. Professor Klein's research interests include return anomalies, taxation, credit risk, derivative securities and corporate governance. He has published in a number of leading academic journals in finance and economics. He teaches Strategic Asset Allocation.

Andrey Pavlov, PhD (UCLA), Associate Professor, Finance and Academic Chair

Professor Pavlov's research interests include mortgage-backed securities pricing and commercial and residential mortgage market risk management. He consults for both the public and private sectors. He teaches the Math Review and Financial Econometrics.

Amir Rubin, PhD (British Columbia), Assistant Professor, Finance

Prior to joining SFU, Professor Rubin served as an economist with the Israeli Security Authority regulating mutual funds and designing risk analysis tools. His research includes corporate finance and governance, asset pricing and portfolio allocation, as well as corporate responsibility and its interaction with financial decision-making. He teaches Financial Economics.

Anton Theunissen, PhD (SFU), Adjunct Professor, Finance

Dr. Theunissen's professional experience includes positions at Swiss Re, Chubb Financial Solutions, Standard and Poor's, American International Group and Wells Fargo Bank. At Swiss Re he served as global head of Market Risk. He teaches Credit Risk Management and Fixed Income Security Analysis.

Derek Yee, PhD (British Columbia), Adjunct Professor, Finance

Dr. Yee is a Chartered Financial Analyst and a Certified General Accountant. He teaches Equity Security Analysis and Portfolio Management. Dr. Yee is faculty liaison for the Student Investment Advisory Service.

TECHNOLOGY

The Phillips, Hager & North Investment Management SIAS room features the latest in computing power and a variety of software applications used in the financial services industry, including Bloomberg and Thompson Reuters.

SUPPORT FOR YOUR CAREER.

Students in Segal Graduate Programs have access to a comprehensive set of career resources through our Career Management Centre.

Working with faculty and their contacts in the industry, our team of career professionals is here to connect you with job postings, an extensive array of online resources, skill-building workshops and personal career counseling. Even after you've graduated, you can contact one of our advisors if you'd like some help with your career.

Recent placements include positions at Canadian Imperial Bank of Commerce (Toronto), Deutsche Bank (New York), Swiss Re (New York) and Toronto Dominion Securities (Toronto).

RECRUITMENT TRIP

Eligible students will have the opportunity to travel to a major financial centre (London, New York, Toronto, etc.) to meet with prospective employers who support the M.Sc. Finance program.

WHAT KIND OF JOB WILL YOU GET?

- Risk modelling and analysis
- Fixed income analysis
- Compliance
- Valuation validation
- Treasury positions
- Investment management
- Security analysis and valuation

HOW TO APPLY.

If you have any questions it's a good idea to connect with an advisor.
Simply call 778.782.7962 or email MScFinance@sfu.ca

ADMISSION REQUIREMENTS:

- Undergraduate degree: min 3.0 CGPA in a quantitative discipline, which may include business, economics, mathematics, engineering or the sciences
- Relevant work experience in financial services is preferred
- Min GMAT: 550
- Proficiency in English for ESL candidates: TOEFL 88+ or IELTS 7+
- International applicants need a valid Canadian student visa

Full details on entrance requirements are available at beedie.sfu.ca/MScFinance

COSTS:

- Tuition: $27,000 (domestic and international)*
- Student fees and textbooks: $2500

Potential sources of funding include entrance scholarships, student loans, lines of credit, and teaching assistant positions.

*Subject to senate approval and course changes.

APPLICATION PROCESS:

- Complete online application form
- Send supporting documents:
  - Official transcripts
  - GMAT scores
  - A self-evaluation
  - Resume
  - 3 letters of reference from supervisors or former professors
  - If applicable, language scores
- Interview, if selected for candidate shortlist
- Deadlines:
  - Early application deadline February 15
  - Final application deadline April 1
  - Late applications will be reviewed based on available space.

WHERE:

All classes take place at the Segal Graduate School, located at 500 Granville Street in the heart of Vancouver's business district and just a few steps from Vancouver's SkyTrain line.

SFU Beedie School of Business
Segal Graduate School
Simon Fraser University
500 Granville Street
Vancouver, BC Canada
V6C 1W6

Tel: 778 782 7962
Fax: 778 782 5122
Email: MScFinance@sfu.ca

beedie.sfu.ca/MScFinance
facebook.com/BeedieSchoolofBusiness
twitter.com/SFUBeedieSIAS
Download our iPhone app

SFU BEEDIE SCHOOL OF BUSINESS
SIMON FRASER UNIVERSITY

AACSB ACCREDITED · EFMD EQUIS ACCREDITED · PRME Principles for Responsible Management Education

MScFin0212