INVESTMENT AND RISK MANAGEMENT SKILLS FOR A WORLD WHERE THE MONEY ISN’T THEORETICAL.
WHY WE’RE HERE
After the 2008 - 2010 global financial crisis, there has been a sharpened focus on risk management and investment management 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. The systemic risk associated with highly interconnected financial markets must also be reconsidered by integrating the proper tools and methods into a corporation’s overall strategy.

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 1% 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

WORK EXPERIENCE
Experience in the financial services sector is a valuable asset.
The Master of Science in Finance program at the Beedie School of Business equips students with the tools needed to manage investments and risk in a rapidly changing world.

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

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 $15.5 million.

If you have a capacity for quantitative modeling and seek a career in financial risk management or investment management, this program is the ideal platform to jumpstart your future.
The MSc. Finance is a 16-month, full-time program delivered over 4 terms. In the Spring term, elective courses allow candidates to specialize in either risk management or investment management.

One of the cornerstones of modern finance theory is the relationship between return and risk. This insight has applications far beyond the field of finance into strategy and operations. Our program consequentially has two streams: investment and risk.

Students taking the investment stream will focus on financial instruments, financial markets, and finance theory. The risk management stream will allow students with a profound interest in credit, market, and operational risk to delve deeper into that area of finance. Both streams share the same core courses and all students are exposed to the fundamental finance theory and practice.

KICKSTART COURSES
• Mathematics for Financial Economics
• Statistics for Financial Economics

CURRICULUM

Financial Modelling Tools - This course provides an introduction to several of the most commonly used software programming languages used for mathematical analysis. Students focus on programming using VBA (Visual Basic for Applications) and MATLAB. A heavy emphasis is placed on hands-on laboratory sessions and practice problems drawn from topics such as linear regression, asset allocation and option pricing.

Financial Economics - This introductory course covers the idea of no arbitrage which is one of the most important concepts defining Financial Economics. The first part describes different situation in which no-arbitrage is used for pricing of securities. The second part builds on no arbitrage in developing the models and results generated by portfolio theory. The third part includes theories on capital markets and corporate finance, as well as their implications.

Financial Econometrics - This course aims to develop the econometric skills and tools commonly needed in the financial industry. Focus is on time-series methods such as auto-regressive and moving average processes (ARIMA) and generalized auto-regressive conditional heteroscedasticity models (GARCH).

Investment Management - An introductory course covering portfolio management, equity valuation, debt valuation, and performance and risk measurement.

Derivative Securities I - This is an introductory graduate course on derivative securities, such as options, forward contracts, futures contracts and swaps. The course focuses mainly on hedging, replication, and pricing.

Tentative study plan. Subject to change.
Equity Security Analysis and Portfolio Management - The valuation of equity securities, including company and industry analysis, financial statement analysis and valuation models.

Portfolio Theory and Asset Pricing - The course covers five main topics: portfolio theory, asset pricing, market efficiency, performance measurement, and behavioral finance. Students learn how sensitive solutions are to inputs and how different forecasts of asset means and the addition of various constraints can be of great practical value.

Enterprise Risk Management - The course is designed to give students a thorough overview of the enterprise risk management practices. The course initiates with a risk assessment framework and subsequently applies it through decision-making exercises within a case-based context. It surveys the best practices with respect to enterprise risk management, including risk architecture, risk communication and disclosure within the organization.

Fixed Income Security Analysis and Portfolio Management - The course surveys current models and techniques required to value, analyze and risk manage portfolios of fixed income instruments and their derivatives. The objective is to develop a set of tools to enable students to deal with realistic problems.

Derivative Securities II - The emphasis of this course is on the use of analytical methods for valuation, replication and hedging. It will build upon the empirical and numerical methods covered in other courses and cover mathematical and finance topics.

Structures and Numerical Methods in Risk Management - This course focuses on the underlying mathematics and software implementation of the fundamental analytic methods used to price equity and fixed-income derivatives. The methods will be derived theoretically and then implemented in MATLAB.

Financial Economics II - This course provides an introduction to the theory of corporate finance. The first part of the course reviews relevant equilibrium concepts and solution techniques in game theory. The second part of the course covers selected topics in corporate finance.

Strategic Asset Allocation - Students in this course develop a good understanding of the theoretical and practical issues relating to the setting of investment policy as well as mean-variance software. The course analyzes investors' return objectives, risk tolerance, investment horizon, tax considerations, liquidity needs and other unique circumstances.

Credit Risk Management - This course provides a solid knowledge and understanding of fundamental credit risk concepts and master the basics of quantitative modelling of credit risk. Emphasis is placed on fundamentals and concepts of CR measurement, understanding, modeling and management and quantitative modeling techniques, issues and choices.

Market Risk Management - This course presents the fundamentals of market risk of traded financial products (basic interest rate products, equities and options) from the perspective of a trader and a risk manager. In the end, students gain a clear perspective of how trading and risk control work together in the capital markets.

Financial Statement Analysis - Provides an understanding of the linkages between financial statements such as annual reports and prospectuses including the three principal financial statements (balance sheet, income statement and cash flow statement) and how useful information about a company can be extracted from them.

Ethics - The objective of this course is to forge critical philosophical thinking around finance and finance practices. Students discuss, classical and modern libertarianism, contractarianism (social contract theory), deontology, consequentialism (utilitarianism) and virtue ethics. In each case students will apply these schools of thought to concrete finance situations.

Final Project - Students are required to complete a supervised research project in the areas of risk management, investment management or a closely related field of inquiry.
THE SIAS FUND: MANAGE A REAL PORTFOLIO

The Student Investment Advisory Service (SIAS Fund) manages over $15.5 million of the university’s endowment portfolio, funded by contributions from HSBC Bank Canada and The Lohn Foundation. The SIAS fund follows a value investing mandate set by the client (SFU) through a conservative investment policy statement. It is composed of four semi-actively managed asset classes: Cash, Canadian Equity, Global Equity and Fixed Income. The SIAS fund reports monthly compliance and performance to the client and faculty advisors. Additionally, review presentations in front of an Industry Performance Review Committee are held on a quarterly basis.

“The experience gained with SIAS became invaluable when I started looking for work after graduation. It’s a real fund and it’s run that way. Our investment team carried out our own capital market expectations, asset and sector allocations, and stock picking. Together with the risk and compliance teams, we presented our investment results to a panel made up of the SFU Treasurer, faculty, and local industry professionals. I recommend applying to SIAS to everyone joining the program.”

Eric Lanoix, Program Alumnus ‘13
Senior Analyst - Portfolio Risk Management, Coast Capital Savings

“SIAS has been a great opportunity to apply the knowledge gained from MSc Finance courses in a hands-on practical manner. This includes applying the investment cycle learned in Investment Management, learning the reasons behind the fund’s investment policy in Asset Allocation and Investment Policy and applying time series analysis techniques like in Econometrics. I would encourage all MSc Finance Students to get involved with SIAS as it is a great way to take initiative on projects, apply time and resource management as a member of a team, and develop the skills required for a future career in the Finance industry.”

Clayton Wong, Program Alumnus ‘14
NETWORK AND REFINE SKILLS AT FINANCE 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, which is a pressure-packed 5 hour challenge to create a buy-side M&A presentation and pitch 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.

Each year, SFU Beedie also sends a team to the ENGAGE International Investment Education Symposium in association with the United Nations Global Compact. The world’s largest Student Managed Portfolio Competition sees colleges and universities with student managed portfolios from across the US and Canada compete based on their twelve-month risk-adjusted yearly returns in the areas of growth, value, blend/core and asset allocation styles of management.

2015 marks the fourth consecutive year that Beedie MSc Finance students have taken the top prize at the world’s largest student investment conferences.

To find out more about student life at Beedie, please visit our student blog at http://www.afewgoodminds.ca/.

“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
Associate, Corporate Credit/Investment Banking at TD Securities

“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 NIBC) culminated in getting me a job at a top Canadian Financial institution.”

Lauren Looi, M.Sc. Finance ’11
Trader

“The MSc Finance program is challenging but very rewarding. Getting involved in case competitions and conducting independent research provided me with great opportunities for networking and personal growth. Program faculty and staff bring an excellent balance of theory and experience while caring deeply about preparing graduates for the finance industry. I thoroughly enjoyed being part of the program and learning the skills needed to start my career in risk management.”

David Gontovnick, M.Sc. Finance ’14
Senior Analyst, BMO Financial Group

beedie.sfu.ca/MScFinance
CAREER SUPPORT

During your studies, you’ll have access to the Beedie School of Business’ Career Management Centre (CMC) — a team of professionals committed to providing you with the resources that you’ll need for successful long-term career management.

The CMC offers a comprehensive and program-specific Career Management Program that is integrated with your program, one-on-one career advising, mentorship and networking opportunities, and a robust collection of online resources—all designed to help you achieve your career goals. We work with you from day one and continue to support your success as you pursue new opportunities post-graduation.

CAREER OPPORTUNITIES

In addition to careers in investment management and risk management, graduates of the MSc Finance program can expect to build careers in any area of finance that calls for a thorough understanding of financial theory and well developed quantitative and analytical skills.

Typical career paths include:
Risk modelling, and investment management at:
- Financial intermediaries
- Hedge funds
- Regulatory institutions
- Equity and Fixed Income Analysis
- Compliance
- Valuation validation
- Treasury positions at financial and non-financial firms
## WHO HIRES OUR GRADS

- Atelier Capital Partners Inc.
- BMO
- China Galaxy Securities
- CIBC
- Coast Capital Savings
- Deutsche Bank
- Fidelity Investments
- G&F Financial Group
- iCube Capital
- Manulife Financial
- Nuna Innovations
- Salman Partners
- Scotiabank
- USA-Canada Investment Inc.
- World Bank
- TD Bank

## MENTORS IN BUSINESS

The Mentors in Business program provides you with an opportunity to be paired with an industry professional who is keen on helping you build business relationships and on offering career guidance and advice. Mentors will share their knowledge, experience, and words of wisdom to help you make informed career choices and plan out your career path.
BEST PLACE TO LIVE

Vancouver is consistently voted one of the world’s most beautiful and livable cities in the world. Vancouver offers both the outstanding opportunities for outdoor adventure and the sophisticated amenities of a world-class city. Take advantage of the city’s ocean side location, with plenty of green space and many recreation opportunities in the mountains 20 minutes north of downtown. After a busy day, linger over a glass of BC wine and a locally inspired meal, or unwind at one of Vancouver’s unique spas.

While this sea-level port city is known for its temperate climate, the surrounding snow-covered slopes are perfect for winter sports and breathtaking views of the city twinkling below. Vancouver is one of the few places in the world where it’s possible to ski in the morning and sail in the afternoon.

NEW DOWNTOWN RESIDENCE

Your SFU Downtown Residence and Innovation Hub is a six-story building located in the heart of Downtown Vancouver. The residence is only steps away from Vancouver’s amenities, including all of SFU’s downtown campuses, and Gastown’s vibrant district of start-up businesses.

The building has 52 residential units accommodating 76 students, offering a convenient solution for students desiring safe and fully furnished housing.

The innovation hub will provide a publicly accessible café-style “gathering space” intended to host industry-focused events and serve as a meeting place. This is an ideal space that will cater to Vancouver’s start-up and creative community and challenge students who wish to play a prominent role in local and business activities.
HOW TO APPLY.

To connect with an advisor, register for an information session, connect with Beedie alumni, or arrange to visit a class, please contact us at 778.782.3552 or email mscfin@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 93+ or IELTS 7+
• International applicants will require a valid Canadian student visa

Full details are available at beedie.sfu.ca/MScFinance

APPLICATION PROCESS:
• Complete online application form
• Required supporting documents:
  - Official transcripts
  - GMAT scores
  - Self-evaluation
  - Resume
  - 3 letters of reference from supervisors or colleagues
  - If applicable, English language scores
• Interview if shortlisted
• Application Deadlines: Round 1: November 30, 2016
  Round 2: February 15, 2017
  Final Round: April 5, 2017

TUITION:
• Domestic Tuition: $33,500*
• International Tuition: $41,900*
  (Domestic rate is for students who have a Canadian citizenship or Permanent Residence)

FEES:
• Student fees and course materials (approx. $1,800)

*Subject to Board of Governors approval.

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.